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DYNAMIC ASSESSMENT OF ORAL PROFICIENCY AMONG ADVANCED L2 LEARNERS OF FRENCH

A Thesis in French

by

Matthew E. Poehner

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The thesis of Matthew E. Poehner has been revised and approved* by the following:

Celeste Kinginger  
Associate Professor of French and Applied Linguistics  
Thesis Adviser  
Co-chair of Committee

James P. Lantolf  
Professor of Spanish and Applied Linguistics  
Co-chair of Committee

Meredith C. Doran  
Assistant Professor of French and Applied Linguistics

Gabriela Appel  
Senior Lecturer in Applied Linguistics and German

Thomas A. Hale  
Liberal Arts Professor of African, French, and Comparative Literature  
Head of the Department of French and Francophone Studies

* Signatures are on file in the Graduate School.
ABSTRACT

This dissertation seeks to offer an alternative way of conceptualizing the relationship between assessment and instruction whereby the two are not dualistically opposed, as is traditionally the case in Western pedagogies, but are instead integrated as a unified activity. Dynamic Assessment (DA) is rooted in L.S. Vygotsky’s Sociocultural Theory of cognitive development, according to which human cognitive abilities can only be fully understood through studying the processes of their development. Thus, Vygotsky argued that assessment must go beyond mere descriptions of observable phenomena to reveal the underlying causes of poor performances and to make recommendations as to how problems can be remediated. That is, assessment should be about prognosis rather than diagnosis.

At the level of practice, DA challenges the widely accepted notion that interaction between an examiner and an examinee jeopardizes the procedure’s reliability. Instead, DA requires the examiner to mediate the examinee’s performance during the assessment itself through the use of prompts, hints, and questions. In this way, the focus of the assessment shifts from examinees’ success or failure at completing a given task to an analysis of the amount and kinds of assistance they required as well as the extent to which they reciprocated the examiner’s interactive moves. Vygotsky formalized this approach to simultaneously understanding and promoting development as the zone of proximal development (ZPD). From this perspective, analysis of examiner-examinee
collaborations reveals the future performance examinees will achieve if they are given appropriate instruction (Vygotsky, 1998).

This study sought to explore the application of DA to a L2 learning context. In particular, L2 DA was considered in terms of the following: (1) any insights into learners’ abilities that were not obtained from assessing a candidate’s independent performance but that only came to light during DA; (2) the possibility of promoting learners’ abilities through DA; (3) the usefulness of DA in leading to individualized instruction that remained sensitive to examinees’ ZPD; and (4) the extent to which development transcended the given assessment context. Six advanced undergraduate learners of L2 French were asked to orally construct a series of narratives in French based on short video clips. The learners created the first narrative independently and the second narrative with support from the examiner. The results of these assessments were used to develop a six-week long enrichment program in which participants met with the researcher for individualized tutoring. The goal of these sessions was to address problems that were identified during the assessments and to do so in a manner that took account of their interactions with the examiner during DA. Following enrichment, the nature and extent of their development was explored through repetitions of the original assessments as well as variations of these tasks.

The findings suggest that DA is an effective means of understanding learners’ abilities and helping them to overcome linguistic problems. The approach is especially relevant to L2 classrooms as a method for rendering formative assessment practices more systematic. It is therefore argued that DA should be taken seriously by Applied Linguistics researchers interested in language assessment, teaching, and learning.
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CHAPTER 1 - INTRODUCTION

1.1 Statement of Purpose

This dissertation addresses a longstanding concern in applied linguistics, and in education more generally: What is the relationship between assessment and instruction? Concerns over “teaching to the test,” “narrowing of the curriculum,” and the “power” that tests have to influence and even control instructional practice suggest that teaching and assessment are generally viewed as separate, and in some cases oppositional, activities (Shohamy 1998, 2001; Moss 1996; McNamara 2001; Linn 2000; Lynch 2001). At the level of research, testing and pedagogy have emerged as distinct specializations with their own traditions and professional journals and meetings. Indeed, in applied linguistics, Bachman and Cohen’s (1996) volume carries the revealing title Interfaces Between Second Language Acquisition and Language Testing Research and argues for increased communication between researchers in these areas.

This dissertation draws on theoretical and empirical research from outside the mainstream paradigm in order to offer an alternative perspective on assessment and its relevance to teaching and learning based on the sociocultural theory of mind developed by L.S. Vygotsky. In particular, it applied the principles of Dynamic Assessment to the teaching and assessment of French as a second language. Dynamic Assessment challenges conventional views on teaching and assessment by arguing that instruction and assessment must be unified into a single activity in which various forms of support are provided in order to reveal the scope of learners’ abilities while simultaneously aiding their development (Lidz & Gindis 2003: 100). Dynamic Assessment procedures can be
considered then as those in which assessment is accompanied by “an instructional intervention” (Sternberg & Grigorenko 2002: 23).

Although there is a robust research literature on Dynamic Assessment (henceforth, DA) in psychology and general education (e.g., Lidz & Elliott 2000; Sternberg & Grigorenko 2002), the approach is relatively unknown in applied linguistics. Indeed, with very few exceptions (Kozulin & Garb 2002; Antón 2003), L2 performance has not been examined from a DA perspective. The present study therefore breaks new ground by employing DA principles to systematically evaluate and promote the abilities of French L2 learners. The framework outlined by Lantolf and Poehner (2004) and Poehner and Lantolf (2005) for implementing DA procedures in the L2 domain in a manner consonant with Vygotsky’s (1986, 1998) understanding of development is especially relevant, as is their critical review of current DA approaches.

This chapter is organized as follows. Section two provides an overview of the study, including the assessment context, the research questions that guided the study, and the focus of intervention. Section three addresses how the relationship between assessment and instruction has been traditionally understood and also considers some recent innovations in education, particularly in the L2 field. The discussion then turns to DA. Section four defines DA, traces its origins to the work of Vygotsky, and considers how this perspective calls for instruction and assessment to be viewed monistically rather than dualistically. In section five, the consequences for this shift in orientation are considered as DA is contrasted with more traditional approaches to assessment. The final section provides an outline for the organization of this dissertation.
1.2 Overview of the Study

The study reported on here represents one of the first attempts to use DA in a L2 context.\(^1\) In particular, this study focuses on the dynamic assessment of oral proficiency of students enrolled in an advanced undergraduate French foreign language (FL) course. Six participants were recruited from a seventh-semester French course, Advanced Oral Communication, during the Fall semester of 2003. These students took part in one-on-one sessions in which they collaborated with the researcher to complete oral narration tasks. The researcher’s interactions with the learners were carried out according to principles of DA.

1.2.1 Research questions

In the research literature on DA, a good deal of evidence has been offered to demonstrate the potential of this approach to foster learning and to illuminate processes of development. In order to explore the application of DA to a L2 learning context, the present study set out to answer the following questions:

1. How do the results of a DA of L2 abilities differ from the results of an assessment that is not dynamic? In particular, does the dynamic procedure add to our understanding of the individual’s knowledge of and ability in the L2?
2. To what extent can interactions during DA actually promote learners’ development?
3. How effectively can the insights into learners’ abilities gained from DA be used to develop an enrichment program that tailors instruction to the individual’s abilities and that addresses areas in which learners experienced difficulties?

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\(^1\) As mentioned earlier, Antón (2003) and Kozulin and Garb (2002) have also carried out research on L2 learning from a DA perspective. Their work, along with other related studies, is reviewed in chapter 3.
4. Do any changes that occur in the participants’ performance during the course of the enrichment program carry over to tasks beyond those used for the assessments? In other words, if learners progress, are they able to maintain their improved performance when the assessment context changes?

These questions were addressed through consideration of learners’ performances as they completed a variety of assessment tasks, which are briefly outlined below.

1.2.2 Assessing French L2 oral performance

Each of the participants underwent two assessments at the beginning of the semester – a dynamic assessment, in which they interacted with the researcher/assessor and were given feedback and help, and a non-dynamic assessment, during which the learners performed without support from the assessor. During both sessions the task was for students to orally compose a past-tense narrative in French based on video clips from the film *Nine Months*. Approximately six weeks later, the two assessments were repeated with each of the participants. During the intervening period, four of the participants took part in an enrichment program, which consisted of eight individualized tutoring sessions that targeted the linguistic problems that were identified during the initial assessments. At the end of the program, the learners repeated these initial assessments so that their performances at these two points in time could be compared for signs of change. In addition, two further assessments were administered in order to reveal the extent to which learners could sustain their performance as variations were introduced into the tasks. Specifically, learners were still required to compose past-tense narratives, but the prompts that were used differed from those in the original assessments: in one of the sessions learners were shown a clip from the film *The Pianist* and in the other they read
an excerpt from the French novel Candide. It was thus possible to trace development of learners’ performance over time.

1.2.3 Passé composé and imparfait

For all the participants in this study, use of the past tense during the narratives was a source of considerable difficulty. In particular, the distinction between the passé composé and the imparfait posed many problems. In some cases learners avoided one of these forms, and in others they used both forms but in inappropriate ways. When asked to explain their choices, learners relied on what they could remember of the descriptive rules they had learned in their language courses. A review of the L2 literature reveals that verbal aspect in Romance Languages is a common problem for English-speaking learners and that the passé composé-imparfait distinction is one of the most challenging topics for students of L2 French (Blyth 1997; Cox 1994). Aspect therefore became a central focus of the enrichment program with all the participants. However, rather than the rule-based explanations of the passé composé and the imparfait that are traditionally used in pedagogical grammars, Dansereau’s (1987) recommendations were followed and the difference was discussed in terms of the linguistic concepts of perfective and imperfective aspect. In this regard, the formal account of aspect provided by Bolinger (1991), the pedagogical recommendations of Bull (1965), and Negueruela’s (2003) approach to teaching aspect were all particularly relevant. During the assessments following enrichment, learners’ explanations of their choice of passé composé and imparfait were analyzed for signs of change in their understanding of aspect.
1.3 Contemporary Views on the Relevance of Assessment to Instruction

To appreciate the radical departure from current understandings of assessment that DA represents, some remarks concerning the privileged place of formal assessments are in order. In the discussion that follows, most of the comments pertain directly to assessments that make use of formal testing instruments and only indirectly to other forms of assessment. In this regard, the traditional distinction between *summative* and *formative* assessment will be followed. According to Bachman (1990: 60-61), the goal of summative assessment is simply to report on the outcomes of learning after instruction is complete, while formative assessment is intended to feed back into teaching by providing important information regarding learners’ strengths and weaknesses that can then be used for subsequent instructional decisions. While formative assessments are usually developed by classroom teachers or groups of teachers for use within their instructional settings, summative assessments are generally associated with externally-imposed, large-scale tests whose administration and scoring procedures have been standardized in order to control for factors (e.g., allotted time, language in which questions are asked, sequence of items, etc.) that might obscure the ability being assessed (see Bachman & Palmer 1996 for a useful discussion of test design). Underlying such assessment practices is the belief that human abilities exist as discrete variables whose presence and intensity can be quantified for measurement (Ratner 1997:14). The resultant scores are then used to compare the abilities of large numbers of individuals, which is particularly important for making various high-stakes decisions, including the allocation of funds to schools and programs, the acceptance of students into colleges and universities, and the awarding of diplomas and certifications (Shohamy 1999). Sophisticated statistical procedures are
used to ensure that the scores themselves represent accurate measures of underlying abilities.

Standardized testing has come to be the privileged form of assessment. Indeed, as Ellis (2003) points out, even many formative assessment practices are modeled after these externally-imposed tests. Ellis refers to quizzes and chapter tests designed and implemented by classroom teachers as planned formative assessments (p. 312). While such assessment instruments are not generally subject to the statistical rigors required for standardization, they mirror their more psychometric counterparts both in terms of administration procedures and interpretation of performance. For example, interacting with students during a test, providing feedback on performance before test-takers have finished, and modifying the test administration procedure for individual learners are usually considered unfair because the resulting score no longer represents a learner’s solo performance. This is an important point that will be returned to below. For the present discussion, it is sufficient to point out that even during planned formative assessments, teaching and testing remain dichotomized with the one focusing on learning and the other measuring or reporting on that learning.

1.3.1 Testing rules

The preoccupation with testing that seemingly permeates every aspect of life in countries throughout the world is, in fact, a relatively new phenomenon (e.g., Hanson 1993, Sacks 1999). For most of human existence people lived their entire life without ever taking a formal test. With the notable exception of the Chinese civil service exam, which had been in place for some fourteen centuries, it was not until the late Nineteenth Century that testing emerged as an area of interest for researchers and educators, and the
widespread use of testing began only in the Twentieth Century (see Gould 1996 for a full
discussion of the rise of testing). Modern testing practices, as described above, became
increasingly popular in the 1900s when the US began using them to screen immigrants
and to evaluate the abilities of Army recruits. Since that time, such tests have gradually
come to be used in a variety of other contexts, including educational settings. In addition,
testing practices have become increasingly standardized as more sophisticated statistical
procedures were developed for the analysis of test scores. Sacks (1999) observes that
Americans today are subjected to tests throughout their life in order to be placed in an
instructional program, graduate from high school, gain admittance to a university, prove
proficiency in or mastery of a content area, apply for a job, or earn the right to drive a car,
and in many cases individuals are subjected to high-stakes tests beginning when they are
still toddlers (p. 35).

1.3.2 The teaching-testing dualism

Recently, testing researchers have begun to express concern over the power of
tests in our lives. Messick (1988), for example, warns that more attention needs to be
paid to the social consequences of introducing a test into an existing instructional setting
and accepting the resulting scores as the sole indicator of learners’ abilities. In applied
linguistics, a new area of research known as Critical Language Testing (CLT) has
recently emerged. Researchers working in CLT are interested in the ways in which tests
are linked to political ideologies and are used for purposes of gatekeeping, control, and
discrimination (e.g., Spolsky 1997, Shohamy 1999, 2001). One area of research that has
received widespread attention is the impact tests have on instruction and learning.

Generally referred to as washback, this phenomenon manifests itself predominantly in
situations of high-stakes testing, where obtaining high test scores comes to be the goal of education, with the result that the scores themselves are not representative of knowledge or ability in a given domain but rather indicate how well students have been trained for the test (Alderson & Wall 1993; Bailey 1996). Some authors, such as Fredericksen and Collins (1989), have suggested that test impact could be good or bad. Describing what they term a test’s *systemic validity*, they argue that a test has high systemic validity if it promotes favorable instructional practices and low systemic validity to the extent that it inhibits learning (p. 28). While one can appreciate this perspective, it is nevertheless the case that the social value placed on attaining high tests scores is sometimes so great that tests themselves actually stand in the way of instructional practice.

What should be clear from this discussion is that testing has not only become an enterprise unto itself, existing outside of the domain of teaching, but it has also come to be regarded as a threat to learning (Shohamy 2001). This dualistic understanding of teaching and testing is so well entrenched that even theoretical and practical innovations that attempt to bring the two into more intimate contact fall short of unifying them. For example, in applied linguistics there is currently an interest in rethinking the longstanding separation between research conducted in Language Testing (LT) and in Second Language Acquisition (SLA). As mentioned earlier, Bachman and Cohen’s (1998) volume is devoted to exploring the complementarity of the goals, methodologies, and insights these two areas have to offer: “since SLA tends to focus on the process of language acquisition, and LT on its product, the combining of qualitative and quantitative approaches would appear to provide a particularly powerful paradigm for future research in this interface” (p.9). Bachman and Cohen go on to outline several examples of the
fruitfulness of the kind of interdisciplinary cooperation they envision, including the fact that research on interactional analysis in SLA led to more communicative tests of speaking ability, as well as an increased interest in assessing lexical knowledge required for adequate performance in school settings (p. 7).

Similarly, at the level of practice, task-based learning and assessment is currently receiving much attention as it models both instruction and assessment after the kinds of communicative activities that characterize everyday life (see Skehan 2001; Chalhoub-Deville 2001; Wigglesworth 2001). Specifically, this pedagogical approach attempts to simulate real-life communicative interactions in learning situations, where it promotes the “test-taker’s individual expression” (Chalhoub-Deville 2001: 214). These types of interactions are also used in testing situations, where it is argued that their authenticity allows examiners to make generalizations about learners’ abilities that extend beyond the “learning/testing situation” and that predict how they will perform in other settings (ibid.). In both task-based learning and task-based assessment the move away from traditional paper-and-pencil tests that are divorced from both teaching and from life outside the classroom “give[s] test-takers the opportunity to utilize their background knowledge and experiences” in order “to be active and autonomous participants in a given communicative interaction” (ibid.).

While the task-based framework represents an important step toward integrating assessment and instruction, it is clear that the two remain separate activities, albeit not as sharply dichotomized as in more traditional pedagogies. For example, Candlin (2001) reports on the implementation of a Target-Oriented Curriculum (TOC) in a Hong Kong primary school. This curriculum consists of various learning targets that have been used
as the basis for real-life communicative tasks that learners engage in during class. While similar tasks are used to assess learning, consider the following account of learning and assessment in this approach: “the major difference between assessment tasks and learning tasks is that in learning tasks, teachers need to conduct appropriate pre-task, while-task and post-tasks activities to ensure that learners can complete the tasks satisfactorily” (Candlin 2001: 237). This description is revealing in that it betrays an enduring orientation toward assessment that has been carried over from standardized tests and that is perhaps the primary source of difference between assessment and instruction: the tester’s goal of controlling all variables that might jeopardize an accurate measurement of an individual’s abilities, understood to be represented by his solo performance. That is, the very kinds of interactions, feedback, supporting materials, and assistance that usually characterize good instruction, and in the task-based framework are necessary to help learners complete a given task, are not permitted if that same task is used for assessment purposes because they would obscure the learners’ “true” abilities.

1.3.3 Isolating the individual

Solo performance, then, is at the heart of the teaching-testing dualism. Allowing any kind of support during an assessment procedure would mean that one could no longer discern individuals’ abilities as they exist “in their head.” Of course, this view has been challenged on a number of grounds. For example, in their criticism of the Oral Proficiency Interview (OPI), Lantolf and Frawley (1988: 188) argue that proficiency is not a property of an individual functioning in isolation but emerges from the interaction that occurs between individuals. A dyadic view of proficiency is a clear departure from the dominant perspective in psychology that considers abilities, including proficiency, as
traits located inside the head of an individual, which can be elicited and measured in much the same way that one’s height can be measured with a yardstick and one’s weight measured with a scale. Lantolf and Frawley’s argument has recently gained empirical support from Swain’s (2001) study of dialogic interactions between language learners and examiners. Building on the work of Lumley and Brown (1996), she points out that the linguistic features of an examiner’s behavior during a proficiency interview can “differentially support or handicap a test candidate’s performance” (p. 287). Brown (2003) similarly reports that changing examiners in a language proficiency interview led to divergent interpretations of the examinees’ level of ability, a finding she attributes to the examiners’ different ways of structuring the exchange, posing questions, and providing feedback. McNamara (1997) concludes that testers should abandon the assumption that proficiency is the cognitive activity of a lone individual functioning in a “curious kind of isolation” (p. 449). Recognizing that the contributions of the examiner during a proficiency test are integrally tied to the resulting performance, McNamara proposes that “the presence of assistance” can provide valuable insights into an individual’s “potential for growth” and should become part of both the testing procedure and the rating scale (p. 454).

1.4 Assessment and Instruction from a Vygotskyan Perspective

The kind of rethinking of assessment that McNamara (1997) is calling for would certainly entail a major shift in how the relationship between instruction and assessment is understood. Sternberg and Grigorenko (2002: viii-ix) similarly note that for some time what has passed for innovation in assessment practices really amounts to “cosmetic” changes to tests, such as computerizing a traditional paper and pencil test or conducting
an oral interviews in an on-line format. Like McNamara, these authors suggest that what is needed is a paradigm shift whereby instruction and assessment could be reintegrated as a single pedagogical activity.

Interestingly, an historical precedent for such an approach to instruction and assessment can be found in the work of Plato (e.g., 1998). Time and again, Plato’s central character, Socrates, “dialogues” with an audience, pointing out the error in someone’s thinking and opening the door for alternative perspectives through questioning. An excellent example of this approach occurs in Plato’s *Phaedrus*, where Socrates employs a series of leading questions and suggestions to help the title character see the problems and shortcomings of a speech he had admired, and thereby sets the stage to launch off in new directions of thinking on the topic. In this way, the Socratic dialogue is a way of simultaneously assessing and instructing. The initial response that Socrates’ questions elicit is indicative of his interlocutor’s thinking at that moment. However, unlike a conventional test, Socrates endeavored to continue rather than end the dialogue after this response, and in this way the initial answer served as a point of departure for the rest of the dialogue as Socrates and his audience collaboratively explored various issues. During the Twentieth Century, the work of the Russian psychologist Vygotsky (1978, 1986) and later the Israeli educational researcher Feuerstein (Feuerstein et al., 1979) also called for an integration of assessment and instruction.

1.4.1 Dynamic Assessment

DA is an “approach to understanding individual differences and their implications for instruction…[that] embeds intervention within the assessment procedure” (Lidz &
In this regard, DA can be contrasted with traditional, or static, approaches to assessment. The terms *static assessment* and *dynamic assessment* were both formulated by researchers working in the DA paradigm in order to distinguish their theoretical perspective from the more traditional and sedimented models of assessment. The terms refer not to the assessment instruments but to the administration procedures; any assessment can be conducted in a dynamic or static fashion. Of course, the terms ‘static’ and ‘dynamic’ posit a clear dichotomy between assessments that include intervention and those that do not. In reality, other approaches to assessment, not generally considered ‘dynamic,’ allow some degree of intervention as part of the procedure. For example, portfolio assessments typically include an interview stage during which learners are given feedback about their work. Certain approaches to performance testing and formative assessment also permit interaction between testers and learners. It is therefore perhaps more appropriate to conceive of assessment procedures as existing on a continuum that reflects the varying degrees to which intervention is integrated with the assessment. In this dissertation, the term ‘static assessment’ refers to traditional approaches to assessment, especially common in formal testing, in which effort is made to ensure that the outcomes reflect a ‘pure’ sample of learners’ abilities; that is, the resulting performance has not been affected by interaction with other people but instead represents individuals’ solo performance. Sternberg and Grigorenko (2002) capture this view of static assessment (SA) with the following description:

> the examiner presents items, either one at a time or all at once, and each examinee is asked to respond to these items successively, without feedback or intervention of any kind. At some point in time after the administration of the test is over, each examinee typically receives the only feedback he or she will get: a report on a score or set of scores. By that time, the examinee is studying for one or more future tests. (p. vii)
The authors go on to point out that DA, on the other hand, includes teaching as part of the assessment procedure. It takes into account the results of an intervention. In this intervention, the examiner teaches the examinee how to perform better on individual items or on the test as a whole. The final score may be a learning score representing the difference between pretest (before learning) and posttest (after learning) scores, or it may be the score on the posttest considered alone. (ibid.)

In DA, then, the focus is “on modifiability and on producing suggestions for interventions that appear successful in facilitating improved learner performance” (Lidz 1991: 6), while in SA no attempt is made to change the examinee’s performance (Haywood, Brown & Wingenfeld 1990).

DA is grounded in Vygotsky’s Sociocultural Theory of Mind (SCT). In this view, the development of higher forms of consciousness, such as voluntary control of memory, perception, and attention, occurs through a process of internalization whereby these functions initially occur as interaction between human beings but are then transformed into cognitive abilities with the result that “the social nature of people comes to be their psychological nature as well” (Luria 1979: 45). The specific aspects of Vygotsky’s theory that have been interpreted and re-interpreted by contemporary scholars interested in DA is the subject of the next chapter. However, Lidz and Gindis (2003) briefly outline seven points that form the theoretical basis for DA procedures that need to be understood if one is to appreciate the goals and methodologies associated with DA. These points can be synthesized as pertaining to three fundamental and interrelated differences between dynamic and static procedures: the view of abilities, the purpose of conducting the assessment, and the role of the examiner. Each of these is discussed below.
1.4.2 Dynamic Assessment of dynamic abilities

Lidz and Gindis (2003: 100) point out that for Vygotsky, abilities are not innate but are emergent and dynamic. This means that abilities must not be considered stable traits that can be measured; rather, they are the result of the individual’s history of social interactions in the world. Through participating in various activities, and through being mediated by those around us, we each come to master our cognitive functions in unique ways. As will be described in the next chapter, DA procedures have revealed that many individuals thought to have a biological impairment were in fact culturally impaired in that they had received an insufficient amount and kind of mediated experiences (Feuerstein, Rand, & Rynders 1988). Importantly, cognitive abilities in this view are amenable to change, and much DA research has concentrated on exploring the modifiability of learners during the testing situation, sometimes with startling results.

The purpose of assessment, according to these authors, is to diagnose what Vygotsky (1998: 202) described as abilities that are fully matured as well as those that are still in the process of maturing. According to Vygotsky (1998: 205), traditional forms of assessment report on only fully matured functions, the products of development, and consequently reveal little about the process of their formation. An assessment that targets maturing abilities allows for cognitive functions to be observed while they are still forming and offers the possibility of intervening to promote the development of certain processes or to remediate functions when problems occur. As Lidz and Gindis (2003) observe, in DA assessment is not an isolated activity that is merely linked to intervention. Assessment, instruction, and remediation can be based on the same universal explanatory conceptualization of a child’s development (typical or atypical) and within this model are therefore inseparable (p. 100).
This inseparability of assessment and instruction makes DA difficult for many researchers and practitioners to conceptualize. Indeed, the dualistic understanding of assessment and instruction is so well entrenched that even the possibility of a test-taker learning during an assessment is seen by test designers as a problem that must be controlled for: a case where an individual performs better on later test items than on earlier ones is described in the literature as “instrument decay” and as a problem for test reliability since the traits the test is intended to measure are a moving target (see Glutting & McDermott 1990: 300 for a full discussion).

This goal of observing and intervening in the development of cognitive functions leads to the third distinguishing characteristic of DA, the role of the examiner. Because SCT maintains that the development of the uniquely human, higher psychological functions occurs through social interaction, DA researchers (e.g., Feuerstein, Rand, & Hoffman 1979), following Vygotsky, have postulated that collaboration with the examinee is crucial to leading and observing development. Vygotsky (1978: 86) defined the difference between individuals’ unassisted and assisted performance their zone of proximal development (ZPD), asserting that the level of performance they are able to reach presently with assistance is indicative of their future unassisted performance. In order to have a complete picture of the individual’s abilities, it is necessary to collaborate with the individual during the completion of assessment tasks, extending independent performance to levels the person could not reach alone. In DA the examiner-examinee relationship is thus transformed, with the examiner intervening during the assessment. The “conventional attitude of neutrality” characteristic of traditional assessments “is thus replaced by an atmosphere of teaching and helping” (Sternberg & Grigorenko 2002: 29).
Indeed, some DA researchers capture this relationship by replacing the terms
examiner/assessor and examinee with mediator and learner, a convention that will be
followed in this study. The mediator offers some form of support to the learner, ranging
from prompts and leading questions to hints and explanations. In this way, DA
researchers can understand not only individuals’ present abilities but also their potential
future abilities and, importantly, can help them achieve that future.

1.4.3 Constructing the future

Reuven Feuerstein, a leading DA researcher, observed that testing practitioners
are often all too eager to accept an individual’s present level of functioning as an absolute
indicator of her potential future abilities, not taking into account that these abilities can be
changed (Feuerstein et. al 1988: 83). In many ways, Feuerstein may have had
Vygotsky’s concept of the ZPD in mind when he proffered this criticism, since Vygotsky
understood the future in a radically different way from how it is seen in most approaches
to assessment. Valsiner (2001) provides a useful means of conceptualizing this
difference in his review of three general perspectives on the future that characterize
research in developmental psychology. In the first perspective, embraced by proponents
of innatist theories of mind, the future is uninteresting because it is assumed that humans
are atemporal beings who mature rather than develop. In the second model, which
Valsiner calls a past-to-present understanding of the future, researchers acknowledge
“the role of the past life history of the organism in leading to its present state of
functioning” (p. 86). Development occurs in a lock-step fashion on its way to some fixed
end point. According to Valsiner, the future is predicted “post factum – when it already
has become present” (Valsiner, 2001: 86). The future is assumed to be a smooth
continuation or extension of the past, with the learner moving along a given trajectory and not deviating from it. Piaget’s theory of cognitive development is an excellent example of this past-to-present model of development. In the L2 domain, Lantolf and Poehner (2004: 52) point out that Krashen’s morpheme-order hypothesis also follows this model of development, with language learners passing through a series of fixed stages en route to a final “mastery” stage. Vygotsky’s understanding of the ZPD, however, fits with Valsiner’s third conceptualization of the future, a present-to-future model, where development emerges in novel ways that cannot be predicted on the past alone. Concern is with the “process of the present (actuality), on the basis of anticipation of immediate future possibilities and through construction of reality out of these anticipated possibilities” (Valsiner, 2001: 86). By present, or actual development, Valsiner, echoing Vygotsky, means the person’s past development as it is brought into contact with the future. Unlike the past-to-present understanding of the future, a present-to-future model predicts the future not a priori but on the basis of concrete mediated activity.

In the context of DA, predictions of future performance are made not on the basis of the individual’s current solo performance but instead take account of the kinds and amount of mediation required and responsiveness to this mediation. Models of DA that take seriously Vygotsky’s work on the ZPD also insist that it is not only improvement within the assessment context that is of interest but actually cognitive development that extends beyond a given pedagogical task. Development, then, does not have an endpoint (such as earning a high score on a test) but is instead about moving beyond one’s current level of ability, whatever it might be. Lidz and Gindis (2003: 103) stress this point in the following description of DA: “traditional standardized assessment follows the child’s
cognitive performance to the point of ‘failure’ in independent functioning, whereas DA in
the Vygotskian tradition leads the child to the point of achievement of success in joint or
shared activity.” Indeed, Feuerstein, Rand and Rynder’s (1988) book on using DA with
“retarded” learners carries in its title the plea, “Don’t Accept Me as I am.”

Lantolf and Poehner (2004) describe the perspective of DA by suggesting that
dynamic procedures see the future as a bet in favor of everyone. In DA, as called for in
Vygotsky’s ZPD, assessment and instruction are dialectically integrated as the means to
move toward an always emergent (i.e., dynamic) future. Bronnfenbrenner (1977: 528),
captures this notion nicely in citing an excerpt from a conversation with A. N. Leont’ev,
an influential colleague of Vygotsky, in which the latter noted that “American researchers
are constantly seeking to discover how the child came to be what he is; we in the USSR
are striving to discover not how the child came to be what he is, but how he can become
what he not yet is.”

1.5 Models of Dynamic Assessment

As mentioned earlier, Vygotsky’s work, and particularly his writings on the ZPD, has
been interpreted in various ways by contemporary researchers interested in developing
DA procedures. In part, this is due to differences in how Vygotsky described the ZPD at
various points in time (Chaiklin 2003) and also to how his ideas were received by
Western audiences when first introduced by his colleague, A.R. Luria (1961). At any
rate, there is currently a proliferation of approaches and methods that fall under the
general term Dynamic Assessment. While the next chapter considers the major
approaches in some detail, it is useful at this point to introduce some key terms that have
been proposed to differentiate DA practices on the basis of administration procedures,
mediation techniques, and assessment goals (Sternberg & Grigorenko 2002; Lantolf & Poehner 2004).

1.5.1 Dynamic Assessment and Dynamic Testing

In the literature, the term dynamic assessment is generally used to refer to any number of procedures that make use of intervention as part of the assessment. Sternberg and Grigorenko (2002: 30) suggest a subtle yet important distinction between two broad goals of dynamic procedures. According to these authors, some applications of dynamic principles seek to determine only “whether and how the participant will change if an opportunity is provided” while others actually intervene in the development of the individual with the goal of producing changes (p. 30). They suggest the term dynamic testing to refer to the former and dynamic assessment for the latter. While the use of these terms introduces its own set of problems – not the least of which is the confusion it produces regarding the uses of the term DA – it is worth considering Sternberg and Grigorenko’s point that not all DA procedures share the same goal. On this view, some DA procedures can be thought of as diagnostic evaluations in which a mediator offers assistance to learners and analyzes their responsiveness in order to make predictions about their learning ability. The learners’ responsiveness to the assistance offered is then reported to teachers, parents, administrators, and other decision-makers. One can imagine the value of such information in deciding placement of learners in programs, allocation of funds, etc. What is important to keep in mind is that the examiner does not attempt to change the learners; it is recognized that development may occur during the procedure but the goal of the assessment is not to help the individual develop but rather to make predictions about the individual’s learning capacities that are more fine-grained
than traditional, non-interactive intelligence tests. The work of Budoff (discussed in the
next chapter) is perhaps the best example of this approach. Of course, one might object
that it is only possible to understand change by actually producing change; this was
certainly Vygotsky’s perspective, as evidenced by his observation that “it is only in
movement that a body shows what it is” (Gauvain 2001: 35, cited by Lidz & Gindis
2003: 99). Indeed, Vygotsky’s discussion of microgenesis dealt specifically with the
issue of development occurring very quickly, and so it is not difficult to accept that even
a single session in which a mediator and a learner cooperatively construct a ZPD can
result in development.

Other DA procedures, which Sternberg and Grigorenko refer to as dynamic
assessment, privilege development over prediction. That is, these procedures seek not to
sharpen the predictive validity of intelligence tests but to undo them by intervening in
development. These approaches to DA often use the initial assessment session as a
springboard for subsequent intervention, which continues the ZPD work begun during the
assessment. In some cases, such intervention programs extend over a period of years.
The ongoing work of Feuerstein and his colleagues in Israel (also discussed in the next
chapter) is representative of this development-oriented approach to DA.

1.5.2 Interventionist and Interactionist DA

Lantolf and Poehner (2004) propose the terms interventionist and interactionist to
describe the two general kinds of mediation that DA researchers can make available. DA
researchers have generally referred to mediation as “intervention,” (see Sternberg &
Grigorenko 2002; Lidz 1991). Intervention, or mediation, can entail a wide array of
support, ranging from standardized hints to dialogic interaction. Lidz and Gindis (2003:
observe that the importance Vygotsky placed on the social origin of higher psychological functions means that “it would be important to discriminate between those interactions that promote such development and those that do not, assuming that all interactions are not equal.” Vygotsky himself conceived of the relationship between the examiner and examinee as “cooperation” (Vygotsky 1998: 201) rather than intervention, clearly implying a dialogic interaction, with both participants negotiating and sharing in the responsibility for development.

Interactionist DA follows Vygotsky’s preference for cooperative dialoging. In this approach, assistance emerges from the interaction between the examiner and the learner, and is therefore highly sensitive to the learner’s ZPD. Interventionist DA, on the other hand, remains closer to psychometric concerns of many static forms of assessment. Interventionist DA uses standardized administration procedures and forms of assistance in order to produce easily quantifiable results that can be used to make comparisons between and within groups, and can be contrasted with other measures and used to make predictions about performance on future tests. Interventionist DA is concerned with quantifying, as an “index of speed of learning” (Brown & Ferrara 1985: 300), the amount of help required for a learner to quickly and efficiently reach a pre-specified end point. In contrast, interactionist DA focuses on the development of an individual learner or even a group of learners, regardless of the effort required and without concern for a predetermined endpoint. Lantolf and Poehner (2004: 54) have noted that the distinction between these two approaches to DA is reminiscent of Elkonin’s (1998: 300) train metaphor for describing different orientations to instruction and learning. According to Elkonin, those interested in learning speed and efficiency are said to focus on how
quickly a train moves toward the final station along a set of tracks, while others are less interested in the train’s speed than they are in helping to lay down new tracks leading toward a station that is potentially always relocating.2

1.5.3 Sandwich and Cake formats of DA

Finally, DA procedures can be structured according to what Sternberg and Grigorenko (2002: 27) have described as sandwich and cake formats. The sandwich format is much more in line with traditional experimental research designs in which treatment is administered following a pre-test (used to establish a baseline measure) and a post-test (used to evaluate the effectiveness of the treatment). In this approach to DA, intervention is similarly ‘sandwiched’ between a statically administered pre-test and post-test. The performance on the post-test can then be compared to the pre-test in order to determine how much improvement an individual made as a result of the intervention.

Sternberg and Grigorenko also point out that these procedures can be administered in either an individual or group setting, and that in individualized procedures the mediation may also be individualized, while in group procedures the mediation tends to be the same for everyone. The cake format refers to procedures in which mediation is administered during the assessment process itself. The authors note that the cake format lends itself to individual administration. Thus, after each item or during the completion of a task, the examinee is given feedback to help him identify errors and overcome them. In an interventionist approach, this feedback might be in the form of a graded set of standardized hints ranging from implicit to explicit. The examiner could then calculate the number and type of hints required by the examinee in order to respond appropriately

2 Lidz and Gindis (2003: 105) point to a similar distinction within DA that developed in Russia. One foregrounds assessment of learning ability and the other, more intimately connected to Vygotsky’s theory, stresses teaching and learning in the ZPD.
to the particular item. In such a model, variation across examinees would necessarily be a function of the number rather than the content of the hints, since these are standardized. In an interactionist approach to DA, any analysis of variation across examinees or for the same examinee over time would have to include both the quality and amount of assistance.

1.6 Dynamic Assessment and Resistance to Change

The Dynamic Assessment research in the West has been ongoing for more than forty years, and a considerable body of research now exists in the general education and psychology literatures. Nevertheless, as Sternberg and Grigorenko (2002: 30-31) observe, DA has not been enthusiastically received by everyone in the scientific community. They suggest three reasons why DA has failed to emerge as a dominant paradigm within mainstream research. The first of these concerns DA methodologies. With some notable exceptions (e.g., Guthke & Beckman 2000), DA researchers have not made systematic attempts to psychometrically establish the validity and reliability of their procedures. For interactionist DA researchers, such as Feuerstein, psychometric concerns are not addressed since they eschew standardization in favor of understanding and promoting development of the individual. Interventionist researchers continue to validate their work using traditional methods, although a recurring problem is that existing statistical models, developed for the measurement of fixed traits, are less than adequate for depicting the kinds of dynamic, emergent abilities that are of interest in DA (Embretson & Reise 2000). An additional, related issue in DA research has to do with replication studies. Again, this criticism is more of a concern for researchers in interventionist DA; proponents of interactionist DA follow a case study approach to
research, and validate their work on the basis of an accumulation of in-depth studies of individuals or groups of individuals. Those working in *interventionist* DA, however, follow standardized administration procedures and typically adhere to traditional statistical methods of data analysis and interpretation, and so could certainly carry out replication studies. In this regard, Sternberg and Grigorenko’s point is well taken, and *interventionist* DA researchers may wish to take it seriously if they want their work recognized by their peers in the testing community. The final reason suggested for the relative lack of attention DA work receives is, arguably, the approach’s greatest strength – its novelty. As described earlier, the traditional bifurcation between assessment and instruction is so pervasive that many are turned away from DA because it challenges accepted practice. Testing purists are quick to dismiss DA on the grounds that it is, in fact, teaching and not testing, while researchers interested in instruction may ignore DA because the term assessment connotes a field of research that is removed from their own specialization.

In applied linguistics, the last fifteen years has seen a rapid growth in the interest in Vygotsky-inspired research into processes of SLA (e.g., Lantolf 2000, Ohta 2001). In LT, interest in Vygotskyan theory has been much more modest. A review of the literature shows that little LT work has been done from a Vygotskyan perspective, and that the work that does make reference to Vygotsky has either used SCT as a research tool to understand learner’s behavior during assessments (e.g., Coughland & Duff 1994, Spence-Brown 2001) or as a basis for critiquing and reconsidering existing testing practices (e.g., Lantolf & Frawley 1988). Recently Johnson (2001) suggested that aspects of Vygotsky’s theory might have important implications for how oral proficiency
interviews could be conducted, but she did not offer concrete guidelines or examples of how interview administration procedures would need to be modified.

Dynamic Assessment is only beginning to make an appearance in applied linguistics. Kozulin and Garb (2003) provide a brief description of the use of DA principles with EFL students in Israel, and Antón (2002) discusses a dynamic approach to placing learners in a Spanish L2 undergraduate university program. Two conceptual papers (Lantolf & Poehner 2004, Poehner & Lantolf 2005) re-connect the practice of DA to the work of Vygotsky and outline a framework for future DA research in applied linguistics, with particular attention given to the L2 classroom. This work is reviewed in chapter 3. The study reported on in this dissertation is an initial application of this framework to a L2 context, specifically the oral proficiency of advanced university students of French.

1.7 Organization of the Dissertation

This dissertation is organized into nine chapters. Chapter 2 traces the history of DA to Vygotsky’s writings on the Zone of Proximal Development. Special attention is given to the introduction of these ideas to an audience outside the former Soviet Union by Vygotsky’s famous colleague, A.R. Luria (1961). It is argued that interpretations of Vygotsky’s theory, and in particular the ZPD, led to the widely divergent approaches to DA that exist today. Each of the dominant DA approaches is reviewed, their strengths and weaknesses are considered, and their relevance to the present study is discussed. The lion’s share of the discussion is devoted to the work of Israeli research Reuven Feuerstein, as his model was drawn on heavily for this study. Chapter 3 considers the application of DA to L2 contexts. The limited literature on this topic is reviewed, as are
some important L2 studies that, while not framed as DA, demonstrate collaboration in the ZPD as a means of understanding and assisting L2 development. This discussion of working in the ZPD serves as a basis for considering the special relevance of DA to classroom assessment practices. It is argued that DA has the potential to improve existing formative assessment practices by making them more systematic and theoretically guided. This chapter then goes on to address some of the major criticisms that have been leveled against DA, by those working in other traditions as well as by certain DA researchers themselves.

In chapter 4, the design of the study is explained, along with the various data analysis procedures that were used. Much of the discussion focuses on the development of the enrichment program, in which the mediator’s interactions with the learner were intended to help them form a conceptual understanding of verbal aspect in order to better control the passé composé and imparfait in their narratives. Consequently, the work of Negueruela (2003) is discussed in detail, as he developed a concept-based approach to L2 instruction following the recommendations of Vygotsky’s student Piotr Gal’perin.

The data collected for the study are analyzed and discussed in four chapters. Chapter 5 outlines the various kinds of interactional moves made by both the mediator and the learners during each of the assessment sessions. These moves emerged from a grounded analysis of the assessment sessions and are organized into typologies. Each of the mediational and reciprocating moves is defined and illustrated with examples from the sessions. Chapter 6 then analyzes each of the assessment sessions, highlighting the learners’ control over linguistic forms as well as their interactions with the mediator, as indicated by the presence and frequency of the moves in the typologies. Chapter 7 traces
learners’ development in the ZPD by examining their interactions with the mediator as they struggled with particular problems. Special attention is given to the kinds of mediation they required to overcome these problems and their responsiveness to moves made by the mediator. Learners’ verbalizations of their reasons for selecting certain forms are also considered. Chapter 8 then describes the ways in which these data led to a more in-depth and nuanced view of learners’ abilities than would have emerged from consideration of only their solo performance.

In chapter 9 the major findings are summarized and critiques of the study are offered with an eye toward future research. The discussion then turns to the larger question of the place of Dynamic Assessment in applied linguistics. In the domain of SLA/LT, it is suggested that group format DA, peer-mediated DA, and computer-based DA are all avenues worth exploring, especially since they address one of the major criticisms of DA, namely feasibility. In the area of elderly populations, the application of DA procedures to patients with dementia, including Alzheimer’s disease, is considered.
CHAPTER 2 – LITERATURE REVIEW:
DYNAMIC ASSESSMENT AND THE ZONE OF PROXIMAL DEVELOPMENT

2.1 Introduction

Despite the extensive body of research literature on Dynamic Assessment, it is not a part of mainstream assessment, in large part due to the reasons outlined in the previous chapter. In fact, it is relatively unknown in Applied Linguistics, and this dissertation represents the most in-depth treatment of DA and applications of its principles to a L2 context to date. In this regard, the current study breaks new ground. Given the novelty of DA in Applied Linguistics, a detailed discussion of this approach’s theoretical framework and its methodological procedures for implementing assessments and interpreting results is necessary since DA departs from conventional assessment methods in important ways. As appropriate, examples of various DA formats are included in this discussion, as are actual research protocols, in order to establish what DA looks like in practice. The literature review for this dissertation is thus divided into two chapters. The present chapter outlines the theoretical basis for DA, namely Vygotsky’s work on the Zone of Proximal Development. The evolution of this concept in Vygotsky’s own writings is traced since, as explained below, Vygotsky’s discussions of the ZPD at different points in time have been taken up by DA researchers and have given rise to very different DA methodologies. This chapter also includes an overview of the dominant approaches to DA, evaluating the contributions and drawbacks of each and highlighting their relevance to the specific DA approach used in this study. Chapter three continues the literature review but focuses on some of the exploratory work that has been done on
DA in L2 contexts, and extends the discussion to include some important studies that used the ZPD to understand and promote L2 development. Chapter three also includes a reflection on how this research was built upon by the present study, which links aspects of Vygotskian theory with the work of DA researcher Reuven Feuerstein in order to develop a L2 enrichment program to accompany the dynamic assessment procedures that were carried out.

2.2 Vygotsky’s Formulation of the Zone of Proximal Development

2.2.1 Defining the Zone of Proximal Development

Chaiklin (2003: 40) observes that the ZPD is among the most well known of Vygotsky’s contributions to psychology and education and is perhaps the aspect of his work that has received the most widely divergent interpretations and applications. In a similar vein, Wertsch (1984: 7) expresses concern that the term has been used so widely and to understand so many psychological phenomena without a clear grounding in Vygotsky’s conceptualization of the ZPD as a theoretical construct. According to Wertsch, researchers using the ZPD “loosely and indiscriminately” risk turning it into a notion “so amorphous that it loses all explanatory power” (ibid.). The range of interpretations of this construct is due, in part, to the scant material on the ZPD that has survived in Vygotsky’s writings; little is available in Russian and even less in English. Indeed, following van der Veer and Valsiner’s (1991: 329) tracing of the concept in Vygotsky’s work, the ZPD first appears only a year before his death in 1934, and Chaiklin (2003: 43) points out that it is only discussed by Vygotsky in eight places, including manuscripts, transcripts of lectures, and book chapters (see Chaiklin 2003: 44-45 for a full listing). Of all Vygotsky’s descriptions of the ZPD, it is the one that appears
in *Mind in Society* that is cited over and over. There Vygotsky defines the ZPD as “*the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers*” (Vygotsky 1978: 86, italics in original). This definition, particularly when it is taken in isolation from the rest of Vygotsky’s work, can yield numerous interpretations. Indeed, even when all Vygotsky’s writings on the ZPD are considered questions still arise. For example, Wertsch (1984: 8) points out that nowhere does Vygotsky provide specific examples of what he means by *adult guidance* and *collaboration*.

Recently, the variety of perspectives on the ZPD that currently characterizes Vygotsky-inspired research has prompted some authors to avoid the term altogether or to restrict its usage to certain specific situations. For instance, one of the more conservative readings of the ZPD is that proposed by Chaiklin (2003). Chaiklin argues that the ZPD was not intended for the analysis of domain-specific learning nor was it meant to explain adult learning. In his view, the ZPD is also neither a heuristic nor a metaphor, as some authors have suggested. He maintains that the ZPD, as envisioned by Vygotsky, is tied to the latter’s model of age periods of child development. The child is said to pass through periods of relative stability punctuated by crisis periods during which *qualitative structural* changes result in novel cognitive functions. Vygotsky referred to these radical leaps in development as “revolutionary breakthroughs” (Vygotsky 1984: 249; cited in Valsiner and van der Veer 1993: 41). The ZPD was Vygotsky’s proposal for understanding a child’s relative proximity to the next age level of development, performing what he referred to as “diagnostics of development” (Vygotsky 1998). In this
regard, Vygotsky defined such diagnostic assessments as a two-step process. One must first uncover the child’s *actual* level of development (i.e., her cognitive functions that have already matured), which he suggests can be accomplished through observation of the child’s independent problem solving. Then, through analysis of the child’s responsiveness during joint problem solving, the researcher can assess her *proximal* level of development, understood as those cognitive functions that have not yet matured but are only in the process of maturing and which are required for the next age period. This leads Chaiklin to conclude that the ZPD should not be used in a general way to refer to development brought about by interaction and assistance because such “assistance is meaningful only in relation to maturing functions needed for transition to the next age period” (Chaiklin 2003: 57).

According to Chaiklin, domains of research such as DA do not benefit from using the term Zone of Proximal Development and should instead rely on alternative terminology such as scaffolding and assisted instruction (p. 59). However, most researchers working in Vygotskian theory (e.g., Kozulin 1998, Minick 1987) as well as in DA (e.g., Lidz 1991, Brown & Ferrara 1985) rightly recognize Vygotsky as a ‘founding father’ of the dynamic approaches to assessing cognitive abilities. In fact, it will be argued in the following subsections that Vygotsky’s discussions of the ZPD, while sparse in some respects, actually provide the groundwork for the two dominant approaches to DA today, namely the psychometric and the clinical. Van der Veer and Valsiner’s (1991) detailed summaries of some of Vygotsky’s lectures, in addition to Vygotsky’s own writings (Vygotsky 1956, 1986, 1998) will be considered in order to bring to light some of the aspects of the ZPD concept that are often overlooked by researchers but that
resonate in important ways with the rest of the theory. Specifically, the ZPD in the context of intelligence testing and the relationship of schooling to development will be shown to have significant consequences for the shaping of the DA research literature. Importantly, the approach to DA developed by Reuven Feuerstein will be proposed as not only an application of the ZPD but as a means of feeding back into the concept and further developing it. In this way, we can form the beginnings of an answer to Chaiklin’s concerns by arguing to move the ZPD beyond the context of age periods (Valsiner & van der Veer 1993 offer a similar response and review a number of ways in which the ZPD concept is being productively developed).

Van der Veer and Valsiner (1991), while being critical of some of the ways in which the ZPD is currently used, offer an interpretation of Vygotsky’s work that in comparison to Chaiklin, allows considerably more room for the concept to be extended and applied to various contexts. In fact, these authors suggest that Vygotsky himself was of two minds on the subject. They explain that the ZPD initially appeared “in the narrow context of traditional intelligence testing and was later gradually broadened to encompass the general problem of the relation of education and cognitive development” (pp. 328-329). As will be argued below, these two accounts of the ZPD in Vygotsky’s writings were, for him, interrelated but nevertheless foreshadow the divergent interpretations of the concept in the work of DA researchers. Both of Vygotsky’s descriptions of the ZPD—as an alternative to IQ testing and as a means of promoting development through formal schooling—are discussed in detail in a paper he gave at the Bubnov Pedagogical Institute in 1933 entitled “Dynamics of mental development of schoolchildren in connection with teaching,” which is summarized in detail by van der Veer and Valsiner
According to these authors, the Russian manuscript of this talk provides the most in-depth account of Vygotsky’s understanding of the ZPD and so it will serve as the basis for much of the following discussion.

2.2.2 Vygotsky’s use of the ZPD as an alternative to IQ testing

In his lecture on mental development and schooling, Vygotsky mentioned that researchers had demonstrated that IQ scores were an accurate predictor of a child’s success in school and that many schools used IQ scores to group children by ability level. However, Vygotsky also referred to research indicating that during the first years of schooling children with initially high IQs tend to lose IQ points and children with low IQs gain IQ points. In order to understand this phenomenon Vygotsky and his colleagues proposed the use of an alternative methodology for assessment, one that included the use of “hints and prompts” during the testing procedure (van der Veer & Valsiner 1991: 337). Vygotsky theorized that not all children would respond to such assistance in the same manner, with some benefiting more than others (ibid.). Elsewhere, he provided the following example to illustrate this point:

Having found that the mental age of two children was, let us say, eight, we gave each of them harder problems than he could manage on his own and provided some slight assistance: the first step in a solution, a leading question, or some other form of help. We discovered that one child could, in cooperation, solve problems designed for twelve-year-olds, while the other could not go beyond problems intended for nine-year-olds. The discrepancy between a child’s actual mental age and the level he reaches in solving problems with assistance indicates the zone of his proximal development (Vygotsky 1986: 187).

In this way, Vygotsky hoped to have a more comprehensive understanding of children’s mental functioning than IQ scores can provide.
In order to validate this model, Vygotsky and his colleagues conducted a large-scale empirical study with children entering school. Their results allowed them to group the children according to high or low IQ scores and large or small ZPDs, as determined by their responsiveness to assistance (i.e., the more responsive children were said to have a large ZPD and the less responsive students a small ZPD). Importantly, Vygotsky reported that not only did the size of the children’s ZPD turn out to correlate well with their success in school (large ZPD children were more successful than small ZPD children) but that ZPD size was actually a better predictor of school performance than IQ.

In entering the debate over the value of IQ scores and the appropriateness of their use for the classification of children, Vygotsky was, to some extent, pressured to either endorse existing IQ tests or propose an alternative. Given the impressive results of his empirical ZPD work, one might expect he would have opted for the latter. However, in his 1933 presentation at the Bubnov Institute, he did not reject outright IQ testing but instead argued that IQ tests and ZPD assessments report two separate domains, independent and assisted performance. Moreover, he stated that the future development of the former was determined by the latter (van der Veer & Valsiner 1991: 341). He also stressed the quantification of both these abilities in the form of present and potential IQ scores. Thus, unlike in his other writings where he urged use of the ZPD to uncover processes of development (as in Vygotsky 1998, 1986), Vygotsky saw quantification of the ZPD as most useful in the context of IQ reform. At this point in his thinking, then, Vygotsky presents us with a much less dynamic picture of the ZPD than normal. For example, he noted in his lecture that the children who received initially high IQ scores did so
at the cost of their zone of proximal development, that is, they run through their zone of proximal development earlier, and, therefore, they are left with a relatively small zone of development, as they to some extent already used it (Vygotsky 1933: 53; cited in van der Veer & Valsiner 1991: 341).

As van der Veer and Valsiner (1991) point out, one would expect the child’s ZPD to continually move forward such that there will always be a difference between what the child can do with assistance and her unaided performance. This would certainly be in keeping with Vygotsky’s overall theory and its emphasis on the dynamics of development and its generally non-teleological orientation. However, it is directly contradicted by some of Vygotsky’s remarks about the ZPD given here, particularly his characterization of the child’s dynamic development occurring in a “static environment” or against a “static background” (see van der Veer & Valsiner 1991: 341-343).

One possible explanation for this apparent discrepancy is that Vygotsky actually conceived of two possibilities for constructing a ZPD. A mediator could proceed through a fixed repertoire of pre-determined assistance designed to help the child complete a given task and to gain efficiency in doing so. A child receiving this form of mediation could certainly reach a point where assistance on an IQ test becomes irrelevant because she can complete all the problems on the test independently. In this way, she can be said to have “run through” her ZPD, as her unassisted and assisted IQ scores will be the same. An alternative approach to constructing a ZPD allows for mediation to emerge from the interaction between the mediator and the learner. This approach privileges the simultaneous understanding and promoting of the processes of development over any arbitrary restrictions on mediation. It is this account of the ZPD to which we will now turn. Before moving on, it is worth noting that both of these approaches have been taken up and to some degree fleshed out by DA researchers (see discussion below of
interventionist and interactionist DA). Of course, because many of the important details of the empirical investigations carried out by Vygotsky and his colleagues were not reported in Vygotsky’s writings and lectures on the ZPD, the precise nature of the assistance offered to his participants cannot be known.

2.2.3 Vygotsky’s use of the ZPD to promote development through instruction

At the time of Vygotsky’s talk at the Bubnov Pedagogical Institute, several competing models of the relationship between schooling and development existed, with the dominant view being that proposed by Piaget. According to this “organistic” view, teaching should follow development, and cognitive processes are left to evolve or mature along a natural course; it is only when the prerequisite development has occurred that instruction should begin (van der Veer & Valsiner 1991: 329). Vygotsky rejected this position on the grounds that it left no room for instruction to seriously impact upon development, an issue particularly salient in work with children with special needs, where Vygotsky had considerable expertise. Vygotsky argued that if a child has difficulty performing a given task or grasping a concept, she should not be left alone until she develops on her own a ‘readiness’ to learn; on the contrary, she should receive focused intervention designed to bring about development. On the basis of his theoretical position regarding the role of mediation in the development of mind and the early work he and his colleagues had done on the ZPD and IQ testing, Vygotsky suggested that instruction and development are two separate processes but that instruction should be sensitive to the periods in the child’s development when teaching can have an optimal effect. It is important to keep in mind, however, that this does not equate to the Piagetian notion of readiness. On the contrary, Vygotsky envisioned instruction aimed at a moving
target, a timing that did not coincide with the child’s present abilities but that was not too far beyond her current potential. For instruction to be most useful it should be “oriented toward the future, not the past,” directed not at what the child is already capable of doing independently but at her “upper threshold” of functioning as it is in this way that instruction helps the child realize her future abilities (Vygotsky 1986: 189). The issue, then, is determining the ‘range’ or ‘zone’ (see Valsiner and van der Veer 1991: 36 for a discussion of Vygotsky’s adoption of Kurt Lewin’s topology metaphors in psychological discourse) in which formal instruction can bring about the development of psychological functions.

Acknowledging the work of Meumann and certain American researchers, Vygotsky suggested an approach to the assessment of cognitive abilities that could take account of both the child’s current level of development and her potential for future development. In fact, he wrote that “determining the actual level of development not only does not cover the whole picture of development, but very frequently encompasses only an insignificant part of it” (Vygotsky 1998: 200) and even went so far as to assert that “to establish child development by the level reached on the present day means to refrain from understanding child development” (Vygotsky 1933: 119; cited in van der Veer & Valsiner 1991: 329). However, as van der Veer and Valsiner (1991) explain, this “double-level approach” to understanding development did not devalue the consideration of actual cognitive function, since “this would be denying that every process has its history” and that a given function “develops before it becomes measurable in practice” (p. 329). Instead, Vygotsky’s proposal highlights the difference between present development and future development and attempts to understand the processes that led to
the learner’s present development and the processes at work in the creation of her future
development. For Vygotsky, these processes vary independently of one another, and the
former should not be used to predict the latter. That is, a learner’s future should not be
assumed to be a simple extension or continuation of her present.

It is in this regard that Vygotsky took the ZPD far beyond the context of
generating alternative IQ scores and framed the concept as an essential part of any true
diagnostic of an individual’s ongoing cognitive development. Returning to his favorite
example of two children whose independent problem solving is the same but who profit
differentially from assistance, Vygotsky elaborated:

From the point of view of their independent activity they are equivalent, but from
the point of view of their immediate potential development they are sharply
different. That which the child turns out to be able to do with the help of an adult
points us toward the zone of the child’s proximal development. This means that
with the help of this method, we can take stock not only of today’s completed
process of development, not only the cycles that are already concluded and done,
not only the processes of maturation that are completed; we can also take stock of
processes that are now in the state of coming into being, that are only ripening, or

Rather than emphasizing the ZPD as training for improving IQ scores through schooling,
the ZPD is put forth here as a way of understanding processes of development before
they are fully matured. The importance of this for schooling is that instruction that is
sensitive to a learner’s ZPD will help her reach her potential while instruction that does
not take account of the ZPD will only lead to development on a hit-or-miss basis. That
is, this form of instruction will succeed only when it happens to coincide with the
learner’s ZPD. In Vygotsky’s words,

since teaching depends on immature, but maturing processes and the whole area
of these processes is encompassed by the zone of proximal development of the
child, the optimum time for teaching both the group and each individual child is
established at each age by the zone of their proximal development. This is why
determining the zone of proximal development has such great practical significance (Vygotsky 1998: 204).

As discussed in the next section, both of the contexts of Vygotsky’s work on the ZPD concept have played an important part in shaping the landscape of DA research.

2.3 The Origins of Dynamic Assessment

2.3.1 Luria’s work on children with learning disabilities

Wozniak (1980) credits Vygotsky’s colleague A.R. Luria as having played a significant role in the promotion of the ZPD and related concepts outside the Soviet Union. In particular, Luria is acknowledged for his efforts to introduce the ZPD as both a theoretical perspective on the nature of human abilities and a practical methodology for distinguishing among groups of individuals with varying underlying cognitive potentials. American psychologists such as Milton Budoff and his colleagues were among the first to explore applications of these to their work on intelligence measurement among underprivileged populations, in the process constituting the first dynamic assessment research. Despite several remarks made by Luria against psychometrics, the fact that the ZPD was introduced to Western researchers in the context of intelligence measurement was significant. Psychologists of the time, believing that human mental abilities existed as discrete traits that could be measured in much the same way as one’s height and weight (see Sacks 1999 and Gould 1996 for discussion) adopted the ZPD concept as a means of deriving a more accurate set of scores on standardized intelligence tests. Echoing Vygotsky’s early discussion of the ZPD, Budoff and others hoped to obtain higher IQ scores for underprivileged learners by training them on the kinds of tasks presented on the tests. More recently, other researchers (Minick 1987, Kozulin 1998, 2003) have criticized these interpretations of the ZPD. Following Vygotsky’s writings of
the ZPD in relation to schooling and development, these authors insist that the ZPD is best used as a qualitative approach to understanding and promoting the development of cognitive processes. They suggest that the DA tradition most in line with Vygotsky is that of the Israeli psychologist and educator Reuven Feuerstein, whose work is discussed in considerable detail below.

In a paper given as part of a special session entitled “Study of the Abnormal Child” at a meeting of the American Orthopsychiatric Association, Luria summarized some of the issues Soviet psychologists and educators were encountering as they attempted to identify children with learning disabilities for placement in appropriate school settings. Luria (1961: 2-4) distinguished four groups of children who perform poorly in school: (a) children of normal intelligence who under-perform as a result of emotional problems; (b) children with an actual biological impairment such as brain damage; (c) ‘weak children’ whose school performance is adversely affected by their poor living conditions, including disease and malnutrition; and (d) children with ‘partial defects’ who have normal intelligence but whose development is hampered by another problem such as hearing impairment. He explained that traditional educational and psychological diagnoses often failed to distinguish between these groups and, consequently, children with mental retardation, deaf children, and children with poor attitudes toward school were lumped together into institutions where few received appropriate support that allowed for learning to occur.

It is in this regard that Luria took a stand against traditional quantitative approaches to measuring intelligence, arguing that “psychometric tests do not close the problem; they only open the problem” and proposing instead that “the most important
problem is that we have to pay more attention not only to the diagnosis, but also to the prognosis of the developmental potential of these children” (p.5). He explained that much empirical work had been carried out in the Soviet Union investigating an alternative to such tests that was grounded in Vygotsky’s writings on the ‘zone of potential development’ (ibid.). Luria then went on to illustrate the concept with the example of three children each of whom received an IQ score of 70 on a traditional test. Acknowledging that “the first rule for every testing psychologist is to consider only those performances which are done by the child independently” (p. 6), Luria explained that the ZPD requires that assistance be given to the child during the assessment. The “prognostic value” of such an approach lies in the analysis of (1) the child’s use of the assistance and (2) the extent to which the child’s performance improved when given assistance. Additional insights can be gained by later testing the children again but without assistance in order to evaluate improvements in their independent performance, a concept Luria referred to as “the principle of transfer” (p. 7). Luria suggested that this multi-step approach to assessment allows for a more accurate picture to emerge of the children’s level of cognitive functioning, as some children benefit greatly from assistance and others do not, and some but not all children are able to maintain improved performance after assistance. He concluded, “They [the three children in his example] may be quasi-identical in a statistical approach, but they are not identical in a dynamic approach, in the zone of their potential development” (ibid., italics added).

The significance of Luria’s paper is not only that it preceded major publications of Vygotsky’s work in English but that it also pre-dates all of the work that has come to be known as dynamic assessment. In fact, the earliest DA research to appear in English
and gain widespread attention in education and psychology was the work of Budoff (e.g., Budoff, 1964, 1968), and Budoff cites Luria as instrumental in the development of his particular approach to DA. Budoff’s work, in turn, was built upon by other DA researchers, including Campione and Brown and Carlson and Wiedl. In addition, this presentation also demonstrates Luria’s impact on DA research through his use of the term ‘dynamic’ to distinguish assessment procedures that made full use of the learner’s ZPD from those that did not and his suggestion of pretest-mediation phase-posttest methodologies and transfer tasks.

2.3.2 Objectivity and divergent interpretations of the ZPD

However, as alluded to above, Luria’s presentation to the American Orthopsychiatric Association also contains the seeds for the greatest bifurcation among DA approaches—the role of psychometrics. Luria himself called for the use of “objective methods” that would lead to the “qualifications” of children’s learning problems (in his presentation he offers as an example of an objective method the use of auditory stimuli during experiments in order to differentiate children with concentration problems and children with hearing difficulties from children whose learning problems were rooted in something else). For Luria, then, objective methods were needed in place of psychometric ones. Ironically, this point was somehow lost on many in his audience. For example, the session discussant and then Vice-President of the Association, Arthur Benton, responded to Luria’s presentation by first noting the latter’s objections to psychometric tests and then stating the following:

I think that we must remind both ourselves and him that the term ‘psychometric,’ as it is currently used in this country [the US], means objective psychological (and often psychophysiological) evaluation and not merely a single test score. American
‘psychometrics’ approximates the objective methods used by the Soviet scientists (p. 15).

This confusion of the terms objectivity and psychometrics has had important consequences for DA research. Even today, debates continue over the appropriateness of traditional psychometric methods in DA procedures. Some researchers argue for a more clinical orientation to DA that does not emphasize quantification and measurement of abilities. It is to their interpretation of the ZPD that we now turn.

Kozulin (1998: 71) notes that the ZPD has received both quantitative and qualitative interpretations from DA researchers. He summarizes the issue with the following question: “Should one focus on the quantitative difference between the child’s pre- and post-intervention performance, or should the emphasis be placed on the qualitative, structural changes in the child’s responses?” Recognizing some of the impressive results obtained by quantifying the ZPD (e.g., Brown’s use of the Graduated Prompt Approach has led to successful differentiation of children with various learning difficulties), Kozulin suggests that Vygotsky’s primary emphasis was on “child-oriented qualitative evaluation” of the type conducted by Feuerstein and his colleagues (Kozulin 1998: 72).

In a critical review of the dominant approaches to DA, Minick (1987) argues that some DA researchers have been so preoccupied with preserving the psychometric properties of their instruments and procedures that they have lost sight of the explanatory power of the ZPD. He points out that Vygotsky proposed the use of the ZPD in contrast to symptomatic assessments that describe an individual’s abilities but do not explain them. Vygotsky (1984: 268) criticized descriptive assessments for failing to illuminate developmental processes, likening them to a medical diagnosis that a patient has a cough.
Such a diagnosis merely describes what the patient already knows; it explains nothing and offers no insight into how the malady can be remedied. However, by making an individual’s ZPD the core of the assessment procedure, “we gain the potential for directly studying that which most precisely determines the level of mental maturation that must be completed in the proximal or subsequent period of his age development” (Vygotsky 1984: 165, cited in Minick 1987: 118). This is the case because the point of assessment in the ZPD is to externalize those processes which are still maturing, and by externalizing them the mediator can intervene in their development. In an interactive, clinical assessment, the cognitive processes that exist on the intermental plane as the mediator and the learner engage cooperatively in a task become transformed and internalized. It is in this way that assessment in the ZPD does much more than explore one’s potential for change – it actually helps the individual to change. Thus Minick concludes that

To assess the psychological functions that are currently maturing, to predict the proximal stage of a child’s development, or to develop programs of education and remediation designed to further that development, the assessment of the ZPD must focus on the qualitative characteristics of the interaction between the adult and child (p. 137).

As will become clear in the sections that follow, clinical approaches to DA are far less concerned with the test instruments and procedures than with understanding and promoting the learner’s development. This perspective is best captured by Vygotsky’s maxim that “we must not measure the child, we must interpret the child” (Vygotsky 1998: 204).

2.4 Current Approaches to Dynamic Assessment

In the following sub-sections, the five approaches to DA that currently dominate the literature will be considered. More attention will be given to the work of Feuerstein than
the other researchers because his is theoretically the most robust and complex, but also because Feuerstein’s model was central to the development of the DA approach used in the current study. However, before turning to Feuerstein the approaches of four other DA researchers will be discussed so that their unique contributions to the fields of educational and psychological assessment, and also to the present study, can be understood. In particular, Budoff’s Learning Potential Measurement represents the first use of the ZPD in DA, demonstrating convincingly that learners respond differentially when offered a standardized form of assistance, and that this information can be relevant for placement decisions in schooling contexts. Guthke’s Lerntest is significant because it moved DA principles beyond the realm of intelligence testing, suggesting that individuals have not a single ZPD for general cognitive development but rather ZPDs specific to various content domains, such as language learning. Brown’s Graduated Prompt Approach argued that true development resulting from work in a learner’s ZPD should manifest itself in tasks other than the test, and so in this approach transfer tasks are included in order to determine how far learners can extend their knowledge and abilities beyond the assessment context, and how much assistance they require to do so. Carlson and Wiedl’s Testing-the-Limits Approach highlighted the important differences in learner performance that result from simply requiring learners to verbalize the cognitive processes involved in task completion both during and after the assessment procedure, an observation that has substantial theoretical support in Gal’perin’s (1989) views on internalization.

2.4.1 Budoff’s Learning Potential Measurement
Budoff’s work emerged out of a concern over the validity of scores produced using standardized measures of intelligence. According to Budoff, traditional intelligence assessments may be adequate for understanding the abilities of many children, but for some – especially those from low socioeconomic backgrounds – the validity of such tests is compromised by the disjoint between the culture of the school and the child’s culture (Budoff & Friedman 1964, Budoff 1987). That is, some learners perform poorly on traditional tests not because they lack abilities but because they have not had the same kind of educational opportunities as their peers. Inspired by Luria’s (1961) work with underachieving students in the Soviet Union, Budoff reasoned that the effects of a child’s background on his test performance could be mitigated if the child were familiarized with the test and taught strategies for solving the kinds of problems it contains (Sternberg & Grigorenko 2002: 73). Some children (though not all) could improve their test scores as a result of training, and this indicates a child’s learning potential.

It is worth pointing out that the misinterpretation of Luria’s study (described above), namely the confusion of the terms “objective” and “psychometric,” lead to a markedly different motivation for conducting dynamic assessments. In the case of Budoff, cognitive development is not mentioned as a goal of the procedure. Instead, the focus of the assessment is improving test scores. In fact, Budoff used only test instruments whose psychometric properties were well established, such as Kohs Learning Potential Task and the Raven Learning Potential Test. He also pioneered the sandwich format of DA (see Chapter 1), which was taken from the classical research design in experimental psychology: pre-test – treatment – post-test. The form of mediation offered to learners in his approach is standardized, consisting of instruction in problem solving
strategies. To an observer, very little would appear different from a traditional static assessment; the ‘dynamic’ aspect of Budoff’s approach is simply that it allows learners to be trained and retested. Nevertheless, this methodology has allowed Budoff to group participants according to the differences in their pre-test and post-test scores, demonstrating that individuals benefit differentially from training, such that two learners may perform differently on the pre-tests but similarly on the post-test. *High scorers* are learners whose initial pre-test performance is good; *gainers* are individuals who show improvement after training; *nongainers* are learners who perform poorly on both the pre- and post-tests.

The test-driven nature of Budoff’s approach to DA is also evident in the lack of follow-up to his assessments. Budoff and his colleagues have yet to outline an intervention program for participants based on test performance (Sternberg & Grigorenko 2002: 83). Instead, the amount of improvement between the pre-test and the post-test is taken as a sign of learning potential; the possibility that a *different* form of training or instruction might have produced *different* results for individual learners has not been addressed. In outlining his approach to DA, Budoff has been very clear that his procedures seek to optimize standardization, and thus mediators are not free to deviate from prescribed methods to help a particular learner. In fact, Budoff has criticized approaches such as Feuerstein’s (discussed below), where “it is difficult to distinguish the contribution the tester makes to student responses from what the student actually understands and can apply” (Budoff 1987: 56). Budoff seems to be trying to determine how much of the performance can be attributed to the “environment,” as represented by the tester, and how much is to be attributed to the student. This contrasts sharply with
Vygotsky’s understanding of the person-environment relationship, as seen in Elkonin’s (1998: 299) observation that for Vygotsky interaction is “not a factor of development, not what acts from outside on what is already there, but a source [italics added] of development.”

Unlike many others working in DA, Budoff has also been preoccupied with the predictive validity of his procedures. This is understandable given his goal of improving the validity of intelligence testing with underprivileged populations, and it has left an important mark on DA research. Budoff has been a major proponent of combining static and dynamic administrations of assessments in order to have baseline measures of independent performance at points preceding and following training. From a Vygotskian perspective, one would want to expand this to include static and dynamic administrations both before and after an intervention program, because if development occurs as a result of intervention it should produce changes in both independent and assisted performance. This notion of multiple assessments at different points in time figures prominently into the research design for the present study, as outlined in Chapter 4.

2.4.2 Guthke’s Lerntest

Guthke and his colleagues at Leipzeig University have built upon Budoff’s work in the development of a number of their own DA procedures, which they refer to collectively as the Lerntest (see Guthke 1982), or more recently as the Leipzeig Learning Test (LLT). Making specific reference to Vygotsky’s understanding of cognitive development, Guthke has argued that individuals have not just one ZPD for general intelligence or learning ability, but multiple domain-specific ZPDs (Guthke 1993). His work has sought to move DA procedures beyond the domain of intelligence testing to
include content areas, such as language aptitude (Guthke, Heinrich and Caruso 1986). Contrary to Budoff’s preference for preserving the static administration of tests, Guthke’s approach is characterized by the provision of assistance during the test itself. The form of mediation provided in the LLT has changed considerably over the last two decades. In early versions of the test, only one type of assistance was offered to an examinee who had produced an incorrect response: she was asked “to think properly once again” (Guthke, Heinrich and Caruso 1986: 905). If the examinee was still unable to produce the correct response, the examiner revealed the solution and they moved on to the next item. More recently, Guthke and his colleagues have devised a menu of five standardized hints that they use when administering the LLT (see Guthke & Beckmann 2000). The following example illustrates how an LLT language aptitude assessment might be conducted.

Examinees are given sets of geometric figures paired with words from an invented language and among other things are asked to carry out a pattern completion task as in Figure 2.1 below.

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*Figure 2.1: LLT Language Aptitude Diagnostic*  
(Guthke, Heinrich and Caruso 1986: 906)

If an examinee’s first attempt to complete the pattern is incorrect, she is provided with the following vague hint: “That’s not correct. Please, think about it once again.” If the
The second attempt is also unsuccessful, the examiner offers a more explicit hint: “That’s not correct. Think about which rows are most relevant to the one you are trying to complete.” If the third attempt fails, the examiner offers an even more explicit hint: “That’s not correct. Let’s look at rows three and four.” If the response is still inaccurate, a very explicit hint is offered: “That’s not correct. Let’s look at rows three and four and focus on the differences in both the positions of the objects and the words.” If this fails to produce the correct response, the examiner provides the correct pattern and explains why it is correct: “That’s not correct. The correct pattern is gadu ski la because we see that gadu represents the triangle, ski represents the square, and la, which indicates the objects’ relative horizontal positioning, should be the final element in the clause, as can be seen in rows three and four.” At this point, the examinee will move on to the next item on the test. While the items become increasingly complex, the same standardized set of five prompts is used throughout. Whenever an individual produces a correct response, the assessor asks her to explain the rule underlying the pattern, thereby helping the assessor identify instances of random guessing.

Moving beyond Budoff’s classification of participants as high scorers, gainers, and nongainers, Guthke has developed a system for reporting LLT results that include both a score and a profile for each learner. The former is based on the number of prompts needed and the amount of time taken to complete the test. The latter comprises an analysis of the types of errors the examinee made (e.g., difficulty remembering which invented words matched which symbols, problems processing longer sequences, etc.), and the forms of assistance to which the examinee was most responsive (e.g., being given a second chance, receiving a reminder, in-depth explanation of the solution, etc.).
individual’s profile then serves as the basis for an intervention or teaching phase in which an examinee, or group of examinees, is offered instruction aimed at redressing the problems that arose during the assessment. This is followed by a second parallel assessment in which the same administration procedure (i.e., provision of hints) is followed. Thus, a clear development over Budoff’s methodology is that in Guthke’s approach, the term ‘dynamic’ refers to both the administration of the pre- and post-tests as well as the intervention stage. Moreover, unlike Budoff, who simply sought to diagnose and categorize learners on the basis of their responsiveness to his assistance, Guthke has tied his assessments to a follow-up program that continues the mediation begun during the initial assessment. After intervention, the second administration of the test does not assume that all examinees will complete all items without assistance but, rather, it is expected that the hints required will be fewer and less explicit. If this is indeed the case, it is argued that development has occurred. As will become clear in chapter 4, Guthke’s use of learner profiles and his linking of assessments to an intervention program are particularly relevant to the approach to DA developed for the present study.

2.4.3 Brown’s Graduated Prompt Approach

Like Guthke’s LLT, Brown and her colleagues have also devised DA procedures for specific content domains, focusing especially on reading and math with normal and special children (see, Brown and Ferrera 1985; Campione, Brown, Ferrara & Bryant 1984). The work of this group is also similar to the LLT in that it relies on a fixed menu of standardized hints and prompts, ranging from most implicit to most explicit and culminating with the correct answer, which are used during the administration of the test
after each item or problem. The unique contribution of the Graduated Prompt Approach, and what makes it especially important for the present study, is its inclusion of transfer tasks.

In their procedure, Brown and her colleagues first teach examinees to solve problems that require them to discover and apply a specific set of principles. Once these are mastered so that the examinees can solve the problems independently, the researchers then attempt to discover how far the individuals can transfer their new ability to novel problems. Thus, these researchers have extended and refined Guthke’s analysis of the post-test results in order to support claims of development. It will be remembered that Guthke, basing his argument on the ZPD, suggested that perfect performance on the post-test is not the sole indication that development has occurred; it may be the case that learners have developed and now require fewer and less explicit prompts. Brown and her colleagues, also drawing on Vygotsky, claim that an additional sign of development is that an individual’s performance changes not only on a repetition of the original test (or a parallel test) but on different kinds of tasks. Thus, in the initial post-test the examinees are given “novel exemplars” of the original problem types (Campione et al 1984: 81). Next they are given a set of “near transfer” problems which integrate the same principles as the original task but in new combinations. Then the examinees are presented with a set of “far transfer” problems requiring “the use of a new but related rule or principle in addition to the familiar ones” (ibid.). Finally, the examinees are asked to respond to a set of “very far transfer” problems that are even more complex. Based on the examinee’s assisted and unassisted performance throughout the posttests, the researchers generate learner profiles comprising two axes – one measuring how quickly they are able to learn
the new patterns and the other measuring how far they can extend this knowledge to novel problems (see Brown and Ferrara 1985).

It should be clear at this point how varied interpretations of the ZPD have led DA researchers down different paths. Budoff, for instance, avoided the issue of development altogether by instead focusing on improving test scores and the predictive validity of those scores. The approaches of Guthke and Brown, on the other hand, were very interested in cognitive development, but they understood this primarily in terms of efficiency. For example, Brown and her colleagues acknowledge Vygotsky as an important theoretical source for the development of their approach since he stressed the value of “interactive learning situations that provide structured guidance for the learner” (Campione, et al 1984: 80). However, while Vygotsky focused on how much development can be promoted through assisted performance, Brown and colleagues are more interested in the “metric of learning efficiency” (p. 82), which they define as “the number of hints required for the attainment of the learning criterion” (ibid.). The interventionist approaches to DA that have been considered thus far are concerned with quantifying as an “index of speed of learning” (Brown & Ferrara 1985: 300) the amount of help required for a learner to quickly and efficiently reach a pre-specified end point. Using a train metaphor, Elkonin (1998: 300) states that those interested in speed and efficiency of learning are concerned with how quickly a train moves toward the final station along a set of tracks. Vygotsky, on the other hand, was not interested so much in the speed of the train along the already constructed track but with helping the person lay down new track leading toward a station that is potentially always being relocated (see Newman and Holzman 1993 on development as creativity and transformation). This
orientation to development is shared by Feuerstein, whose approach is discussed below. Before turning to Feuerstein’s model, one additional approach to DA is worth mentioning, not because of its application or understanding of the ZPD but because of the kind of mediation it employs.

2.4.4 Carlson and Wiedl’s Testing-the-Limits Approach

Unlike other DA researchers who draw specifically on SCT, Carlson and Wiedl work within information-processing theory. Similar to Budoff, they began with the basic premise that disadvantaged learners often have their abilities underestimated by conventional ability testing due, in part, to their different backgrounds. In their view, altering the conditions of the test can help to counterbalance learners’ background differences. The goal of their work, then, is to determine which test administration procedures lead to improved performance for which kinds of learners (Sternberg & Grigorenko 2002: 98).

Reasoning that, among other problems, learners who perform poorly on tests are often ineffective in how they orient to a problem, may experience difficulties maintaining focus, and may experience high levels of frustration (Dillon & Carlson 1978: 437), Carlson and Wiedl and their colleagues have suggested that the target of intervention should be to remediate the learner’s planning processes:

Planning is a uniquely human cognitive process and plays a central role in the general regulation of any goal-directed activity. It entails making decisions, judgments and evaluations and includes the generalization, selection and execution of strategies in cognitive performance…planning, therefore, may be viewed as the essence of human intelligence” (Kar et. al 1993: 14).

Planning is also an essential component of Feuerstein’s approach to DA (described below), and figured prominently into Vygotsky’s writings on internalization. Indeed, as
Lantolf (2003: 350-351) argues, planning relates to the human ability to perform actions on the mental plane without needing to do so physically, and this has profound implications for human activities ranging from building a skyscraper to baking a cake. A full discussion of internalization is beyond the scope of the present study, although this topic will be returned to in the next chapter in the section devoted to the use of an enrichment program to promote the development of specific cognitive functions. For now, what is of interest is the approach developed by Carlson and Wiedl and their colleagues to diagnose and remediate planning problems in individuals with poor test performance.

These researchers have proposed two intervention techniques: the provision of extensive feedback and the use of verbalization of cognitive processes. Unlike many approaches to DA, Carlson and Wiedl advocate interrupting test administration as necessary to provide feedback and elicit verbalization rather than introducing a separate intervention phase. Relying on the work of Duncker (1945) and Claparede (1933), Carlson and Wiedl (1992: 163) have developed various levels of standardized verbalization prompts designed in some cases to encourage learners to think aloud so that the researchers can better assess where problems occur during task solution (“Try to think aloud. I guess you do so when you are alone and working on a problem” or “Think, reason in a loud voice, tell me everything that passes through your head during your work searching for the solution to the problem”), while in other situations the verbalization itself is a means of intervening in a learner’s thinking by encouraging her to approach a task in a particular way (“Tell me what you see and what you are thinking about as you
solve the problem. Tell me why you think the solution you chose is correct. Why is it correct and the other answer possibilities wrong?”).

Research on the Testing-the-Limits Approach has primarily concentrated on comparing the use of these techniques to static administrations of tests as well as on altering the order and combination of the techniques (e.g., feedback during the test and verbalization afterwards, feedback and verbalization during the test, verbalization both during and after the test, etc.). The use of verbalization has been particularly successful with a variety of learners and is unique among the interventionist approaches to DA. A consistent finding of particular interest is that learners who typically perform poorly on traditional tests show greater improvement when asked to verbalize than do those learners whose initial performance is already high (Kar et al. 1993). Interpreted within a Vygotskian framework, one could argue that the high performers do not need to re-externalize cognitive processes they have already developed and so do not benefit from the verbalization condition while learners who have not yet fully developed the requisite capabilities are better positioned to regulate their thinking through verbal speech. This is an important point that will be discussed more fully in the context of the present study in chapter 4.

2.5 Mediated Learning: The Approach of Reuven Feuerstein\(^3\)

Although Feuerstein’s approach to DA was developed independently from Vygotsky’s work\(^4\) the similarities are such that in many ways the research and instruction

\(^3\) Mediated Learning Experience (MLE) appears in Feuerstein’s work as a part of SCM theory (see his discussion of mediated and direct learning) but it is also used to refer to his approach to DA. Both these meanings of MLE are preserved here; the context in which the term appears should indicate whether it is referring to a type of learning or a DA methodology.

\(^4\) While Feuerstein and his colleagues have always insisted that they developed SCM theory and the MLE concept without any knowledge of Vygotsky’s work, they were at least aware of Vygotsky: Feuerstein’s classic text on DA (Feuerstein et al. 1979) references the 1962 translation of Thought and Language in a
being done at Feuerstein’s International Center for the Enhancement of Learning Potential in Israel are a continuation of the defectology work begun by Vygotsky and Luria more than seventy years ago. Many of the underlying assumptions of Feuerstein’s model are shared not only with Vygotsky but also with other DA researchers. However, since Feuerstein’s is the most theoretically robust of the contemporary approaches to DA, his model will be considered in some detail, and where appropriate it will be compared and contrasted with Vygotsky’s views. The work conducted by Feuerstein and his colleagues (Feuerstein, Rand, & Hoffman 1979; Feuerstein, Rand, Hoffman, & Miller 1980; Feuerstein, Rand, & Rynders 1988) as well as the research of those inspired by Feuerstein (Lidz 1991; Karpov & Gindis 2000; Peña & Gillam 2000) is rooted in the basic belief that human cognitive abilities are modifiable. This dictum has been nourished by numerous cases of individuals who have benefited from Feuerstein’s assessment procedures and cognitive education program, including several ‘success stories’ such as one young boy labeled as mentally retarded who eventually went on to earn a PhD in psychology (Feuerstein et al. 1988 provide additional examples of these remarkable cases).

2.5.1 Structural Cognitive Modifiability

Feuerstein’s belief is formalized as his theory of Structural Cognitive Modifiability (SCM). According to this view, human beings are ‘open’ rather than ‘closed’ systems, meaning that human cognitive abilities are not fixed traits resulting purely from biology in the way that one’s height and hair color are determined genetically, but rather they can be developed in a variety of ways depending on the

footnote providing examples of psychologists who have expressed dissatisfaction with traditional intelligence measures.
presence – and the quality – of appropriate forms of interaction and instruction (Feuerstein et al. 1988: 5). In Vygotskian terms, this is equivalent to the claim that the uniquely human forms of consciousness emerge through participation in object-oriented social activity.

For Feuerstein and his colleagues, the psychological functioning of individuals living in a rapidly changing, technological late Modern society can hardly be characterized by stable and predictable patterns; on the contrary, “modifiability” and “autopasticity” are more important than ever (Feuerstein et al., 1988: 62). However, he notes that in the context of education, and particularly in educational testing assessment, the ability of human beings to change – to develop abilities that are qualitatively different from any they previously displayed and that could not have been predicted a priori – encounters a good deal of opposition from the widely accepted but often unstated belief that mental abilities are ‘static.’ Reminiscent of the discussion of Valsiner’s models of the future in chapter 1, Feuerstein and his colleagues argue that most education systems continue to assume that a learner’s future functioning can be perfectly predicted on the basis of his present performance, “ignoring a possibility that the predicted destiny may not materialize if powerful intervention takes place” (Feuerstein et al., 1988: 83). The authors continue,

The belief in the predictability of certain biopsychological signs is so strong that some professionals think they can (and must) precisely forecast the whole life trajectory of a young child with retarded performance, going out of their way to make sure that the parents understand that nothing can be changed (pp. 83-84).

Indeed the use of the terms ‘static’ and ‘dynamic’ in the DA literature is rooted not only in differences regarding assessment administration procedures but also in the underlying beliefs concerning the stability or modifiability of cognitive functions.
Elsewhere, Feuerstein stresses that SCM theory does not differ from other approaches to cognitive assessment in its recognition and identification of individuals exhibiting low levels of achievement. However, “by considering this level as pertaining only to the manifest repertoire of the individual, it [SCM theory] takes into consideration the possibility of modifying this repertoire by appropriate strategies of intervention” (Feuerstein et al., 1979: 95). Put another way, SCM can be seen as a conviction that the predictive power of static assessments can be undone by helping an individual create a new developmental trajectory. This idea is captured nicely by Feuerstein’s preference for the term *retarded performers* rather than *retarded individuals*, emphasizing that it is the individual’s performance – her interaction with people and objects in the world – that is retarded and in need of modification.

A key component of SCM theory is mediation, which Kozulin (1998) argues is understood in very similar ways by both Vygotsky and Feuerstein. Feuerstein has illustrated mediation in the following way. In direct, nonmediated learning the child interacts with his environment in a trial-and-error, experimental manner. In this type of learning, which closely resembles the stimulus-response conditioning model of the behaviorist paradigm, the child remains trapped in the here-and-now situation, unable to interpret the world or to construct meaning in a way that will allow him to see connections between events, situations, and individuals. In mediated learning, the stimulus-response model is altered so that the child is no longer interacting with his environment in a direct, haphazard fashion. Instead, an adult or more competent peer enters into a relationship with the child and “selects, changes, amplifies, and interprets objects and processes to the child” (Kozulin 1998: 60). Feuerstein terms such an
interaction a Mediated Learning Experience (MLE). The following subsection describes MLE and illustrates it within the context of Feuerstein’s research with “retarded” children.

2.5.2 Mediated Learning Experience

Feuerstein, Rand, and Rynders (1988) explain that a child who has had only direct learning experiences is left with an “episodic” grasp of reality. Feuerstein has referred to such children as culturally deprived. Culturally deprived individuals are not ‘deprived’ in the sense of not having gained access to a particular culture. Rather, according to Feuerstein and his colleagues, these individuals have not acquired any culture. Of course, being born into a community and living among other people the child will have been exposed to a culture, but for Feuerstein this is not enough. He maintains that what separates humans from other animals is that adult members of a community mediate the world to their young through language, gesture, ritual, and including them in the various activities of daily living. Thus, the culturally deprived child is one who has not had his culture mediated to him in a sufficient or adequate manner (Kozulin 1998: 68). Kozulin explains that “the lack of mediation is observed in children whose parents and other caretakers do not extend their attention beyond the here-and-now satisfaction of the children’s vital needs…Separate experiences, linked only to specific stimuli or reinforcers, remain unconnected in the child’s mind” (ibid.). Kozulin goes on to assert that the culturally deprived child lacks many of the cognitive functions necessary for subsequent learning both in and out of school, including the ability to plan, to make comparisons of similarities and differences, to formulate and test hypotheses, and to develop representations, among other processes (ibid.). Feuerstein explains the
relationship between mediated and direct learning experiences and the fundamental importance of the former in the following way: “The more a child is subjected to mediated learning experiences, the greater will be his capacity to benefit from direct exposure to learning. On the other hand, a lack of MLE will produce an individual who will benefit very little from direct encounters with learning tasks” (Feuerstein et al. 1988: 58). In Vygotskian terms, the mediator in a MLE facilitates the child’s internalization of their interaction, moving it from an *intermental* to an *intramental* plane of functioning (Vygotsky 1978). In this way, the child’s social interaction with the mediator provides a model that the child can imitate and transform, developing beyond his current capabilities.

In addition to culturally deprived children, Feuerstein and his colleagues (Feuerstein et al. 1979) have identified two additional groups of retarded performers: *culturally different* individuals, and those whose learning difficulties are predominantly rooted in their biology rather than cultural conditions (e.g., children with Down syndrome). While this latter group often does not show the dramatic improvement characteristic of the other two categories of learners, it is important to note that these individuals are nonetheless responsive to many of Feuerstein’s techniques. Many of these children, after having been subjected to numerous static assessments and labeled mentally retarded, turn out to be capable of very high levels of cognitive functioning. Feuerstein’s conviction that even children whose cognitive challenges are the result of biology can be modified parallels Vygotsky’s (1994) statements regarding deaf and blind children. Vygotsky pointed out that such children have not only a biological condition to contend with but also a social one:
It goes without saying that blindness and deafness are biological facts and not at all of a social nature, but the teacher has to deal not so much with these facts as with the social consequences of these facts. When we have a blind child as an object of education before us, we are compelled to deal not so much with the blindness in itself, as with the conflicts which arise therefrom within the child when it enters life…Blindness or deafness, as a psychological fact, is not at all a misfortune, but, as a social fact, it becomes such (p. 20).

Vygotsky goes on to describe how, under traditional instruction, attempts at speech would be suppressed in a deaf and dumb child, which in turn impacted upon his cognitive development and made subsequent efforts to promote speech development much more problematic. In Feuerstein’s approach, this is precisely where the mediator fits in. By interposing himself between the child and the object or task, the mediator can guide the child while simultaneously assessing her responsiveness to assistance. For Feuerstein, the difficulties encountered by such children are as much a result of their biology as their social world, which often responds to ‘abnormal’ children by withdrawing the opportunities for interaction – MLEs – that ‘normal’ children enjoy. This is tragically ironic when one considers that these challenged children perhaps need MLE more than anyone.

The other group of children Feuerstein describes, those who are culturally different, are particularly common among immigrant populations and some ethnic minorities (e.g., Ethiopian immigrants to Israel). These learners have acquired their own culture but, owing to the divergence between the dominant culture and their own, they often struggle to bring together the ways of thinking and the representations of the world learned at home with those presented in the school setting (Feuerstein et al. 1988: 97-99). This disconnect places an additional burden on the culturally different child, who must
not only struggle with the school curriculum but with the norms, values, and interactional patterns that are also new.

The creation of these three broad categories of retarded performers (see Feuerstein et al. 1988 for an in-depth discussion of each of these categories and examples of subcategories) is the result of several decades of clinical work with diverse populations, especially children and adolescents usually categorized by teachers and school psychologists as learning disabled. Like Vygotsky and Luria, Feuerstein realized early on that not all the children who exhibit poor performance in school do so for the same reasons. He reasoned that if his theoretical views regarding the importance of mediated learning were correct, then an individual’s modifiability could be gauged through analysis of his interactions with an expert during a session of intensive mediation – a dynamic assessment.

For Feuerstein, then, the MLE is the very heart of DA. During an intensive MLE – intensive because the assessor provides as much mediation and as many forms of mediation as possible – the adult mediator engages in a task with a learner, all the while noting the learner’s responsiveness to mediation and making changes accordingly. The mediator’s goal is to diagnose the child’s potential for cognitive change. This is accomplished by actually helping the child to change during the assessment itself. The degree to which the child changes and the mediation required to bring about that change are both crucial components of the diagnosis. Before moving on to a discussion of the specific tasks mediator and learner engage in during one of Feuerstein’s DA sessions it is important to consider precisely what constitutes an intensive MLE. This is a topic with which Feuerstein and proponents of his approach have become increasingly preoccupied.
(Lidz 1991, Feuerstein et al. 1988, Kozulin 1998). In part, this is due to criticisms of his earlier work but it is also the result of a recognition of the need to tighten-up certain parts of SCM theory, particularly as the MLE approach to DA continues to be applied to increasingly diverse contexts (see Tzuriel 2001).

2.5.3 MLE attributes

Feuerstein has clarified that not just any interaction between an adult and a child constitutes an MLE and that this becomes evident in the analysis of the intensive MLE sessions he and his colleagues conduct in their approach to DA. Feuerstein, Rand, and Rynders (1988) have outlined eleven attributes of MLEs that distinguish them from other types of interaction. Figure 2.2 lists all eleven attributes and summarizes all but the first three, which are described in detail below.
1. **Intentionality and reciprocity**
2. **Transcendence**
3. **Mediation of meaning**
4. **Mediation of feelings of competence** – offering various forms of assistance to help the learner to successfully complete a task previously perceived as too difficult and interpreting to him the meaning of his success.
5. **Mediated regulation and control of behavior** – regulation of the child’s impulsivity and attention in ways that lead to the child gradually taking on more and more responsibility for the control of his own behavior.
6. **Mediated sharing behavior** – involves the mediator communicating to the learner her own orientation to the task, her perception of its demands, reactions to problems that arise, and feelings at various stages of task completion while also attempting to elicit the child’s feelings and perceptions, emphasizing the joint nature of the interaction.
7. **Mediation of individuation and psychological differentiation** – emphasizes the learner as an individual with thoughts, feelings, and abilities that may be different from but can certainly complement those of others.
8. **Mediation of goal seeking, goal setting, goal planning, and achieving behavior** – proposing and perceiving goals; planning specific actions, including the achievement of sub-goals, that will lead to task completion; using representational modes of thinking; and execution of problem-solving strategies.
9. **Mediation of challenge: The search for novelty and complexity** – attempts to mediate an activity the learner has already mastered will not produce the feeling of competence described above and may lead to boredom and frustration. MLE tasks should target what the learner is not yet capable of doing independently.
10. **Mediation of an awareness of the human being as a changing entity** – the core of Feuerstein’s SCM theory, the belief that all human beings are modifiable.
11. **Mediation of an optimistic alternative** – related to the above, the insistence that individuals can be more than their present abilities suggest.

**Figure 2.2: Mediated Learning Experience Attributes**
(Feuerstein, Rand & Rynders, 1988: 61-62)

The first three attributes – **intentionality and reciprocity, transcendence, and mediation of meaning** – are, according to Feuerstein, the most important in transforming a given interaction into a MLE. These are basic elements common to all MLEs and lead to the development of uniquely human forms of higher thinking, while “the other attributes,
largely culturally and situationally determined, are responsible for the development of differences in cognitive style, creating great diversity in human existence” (ibid.).

*Intentionality and reciprocity*

The first and most basic of the MLE attributes outlined by Feuerstein is intentionality, that is, the adult’s deliberate efforts to mediate the world, an object in it, or an activity for the child. While it may seem obvious that a mediator must intend to mediate just as a teacher must intend to teach, this remains an important point. Intentionality, for Feuerstein, marks the MLE as the direct opposite of the haphazard, incidental learning described above. Instead, the MLE is focused on the child’s cognitive development through guiding him as he participates in various activities that he would likely not be able to successfully complete on his own. As such, intentionality, according to Lidz (1991: 74-75), includes a number of mediator behaviors, such as “initiating, maintaining, and terminating the interaction” but also “regulating and refocusing the child’s attention and participation” during the MLE. Feuerstein, Rand, and Rynders (1988: 62) provide the example of a mediator who wishes to call a child’s attention to a particular object. The mediator “transforms the stimulus, rendering it more salient and attractive to the child, changing its amplitude (e.g., loudness, brightness), its frequency, and the duration of its exposure” (ibid.). Importantly, the authors argue that the intention to mediate transforms not only the stimuli but also the child and the mediator. Thus, while stimuli are rendered “more salient and attractive,” the child’s curiosity is aroused, his attention

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6 Interestingly, Feuerstein implies that the above-mentioned MLE attributes are somehow less culturally-determined than the others. From a Vygotskian perspective, however, this distinction makes little sense. Here it is not just that the social gives rise to higher forms of consciousness; it is in the social that consciousness resides. All human experiences, all forms of mediation, and all forms of learning are cultural. In this way, human consciousness cannot be understood in isolation from an individual’s history, and so even *intentionality and reciprocity, transcendence, and mediation of meaning* are part of that history.
guided and his perception focused, and the mediator does everything she can to maintain the child’s alertness, including pointing out significant features, asking questions, making suggestions, gesturing, and constantly reading the child’s responses and making adjustments and changes to maintain his engagement (pp. 62-63). *Reciprocity* is the term Feuerstein uses to describe this interaction since the actions of both participants are necessarily intertwined. Feuerstein also uses the term to emphasize that the child is no longer a passive recipient of knowledge but an active co-constructor of it. Lidz (1991) expands upon this notion of reciprocity, arguing that the learner’s contributions in DA are often overlooked by MLE researchers, who have tended to focus more on the specific forms of mediation used in the procedure. This is an important criticism that we will return to in the next chapter.

*Transcendence* and *Mediation of meaning*

Intentionality contrasts with direct, incidental learning by structuring the MLE in a specific way and highlighting the most important elements of the object or activity. Transcendence provides an additional and related way in which a MLE differs from direct learning: the goal of the MLE is to bring about the cognitive development required for the child to move beyond the ‘here-and-now’ demands of a given activity. Feuerstein (Feuerstein et al., 1979: 92) argues that true development *transcends* any specific task and manifests itself in a variety of ways under a multitude of differing conditions. It is for this reason that the MLE typically proceeds from an initial training phase on a particular problem to the tackling of “a series of tasks that represent progressively more complex modifications of the original training task” (ibid.). Feuerstein reasons that the structuring of the MLE to include tasks that vary in their level of difficulty and
complexity require of the learner the same kinds of adaptations that will be expected of him in daily life. In this way, *transcendence* runs counter to the often-voiced concerns regarding ‘teaching to the test.’ Because the MLE strives above all to help the individual develop, it should be understood not as “training…oriented toward a specific content” but rather a series of procedures designed to establish the basis for higher cognitive functioning (p. 105). As illustrated above, the Graduated Prompt Approach to DA developed by Brown and her colleagues makes similar claims regarding the nature of development, and for this reason they have included transfer tasks as a necessary step in their assessment program.

*Mediation of meaning*, the third of the key MLE attributes described by Feuerstein, emphasizes the point made above with regard to culturally deprived children: the significance of objects and actions cannot be intuitively understood by the child but must be mediated to him so that relationships and connections become clear. Without understanding meaning, the child is left with an ‘episodic’ grasp of reality and is unable to connect present events to those in his past and, conversely, cannot project into the future on the basis of the present or past. Each of his experiences is regarded by the child as standing alone, unconnected to the rest of his life. That is, in order for the learner to *transcend* a particular problem or set of circumstances he must develop what I will call a conceptual understanding of the principles involved in successfully completing the task.

Lidz (1991: 77) reviews the available literature on the MLE and concludes that *mediation of meaning* concerns the mediator’s attempts to get the child to notice certain features, to elaborate on their significance, and to engage in cause-and-effect and inferential thinking. She adds that “important cognitive outcomes of mediation of meaning include the ability
to compare and to categorize, based on perceptions and explanations of how events and objects relate” (p. 76). Thus, while *intentionality* describes the approach taken by the mediator (e.g., structuring the experience, scheduling the stimulus, maintaining the child’s focus, etc.) and *transcendence* refers to the goal of the MLE (i.e., the child’s cognitive development), *mediation of meaning* can be understood as the glue that holds both of these together. That is, meaning explains both what development looks like for Feuerstein (conceptual understanding of objects and activities) as well as what specifically needs to be mediated to the child (relationships and connections). Meaning is that which the mediator must intend to help the child develop and it is also what enables the child to move beyond the specific MLE to the larger world of social relations. For Feuerstein, this is the core of human learning. Indeed, as Bruner (1980) enthusiastically observed, “MLE is not only for the handicapped, it is for all of us since it’s MLE which makes us human!” (cited in Feuerstein et al. 1988: 58).

2.5.4 *Learning Potential Assessment Device*

As should be clear from the above discussion of MLE attributes, the mediator is not tied to a script or set of rules but is required to respond according to the learner’s needs throughout the DA procedure. The session itself is largely structured by the specific tasks or ‘tests’ mediator and learner are cooperating to complete. These tests are known as the Learning Potential Assessment Device (LPAD). The LPAD is a battery of 15 instruments that are dynamically administered to a learner during the MLE session. In this way, Feuerstein and his colleagues have managed to put their theoretical model of the MLE into a concrete form that can be readily accessed by researchers and

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7 The LPAD, or Learning Potential Assessment Device, is referred to in some publications as the Learning Propensity Assessment Device. This difference in name does not, as far as I am aware, indicate any other difference in procedures, techniques, materials, or approach.
practitioners; workshops are regularly offered around the world to provide training in the administration and evaluation of the LPAD.

Many of the LPAD instruments are well-known standardized tests Feuerstein has simply adopted while others were created by Feuerstein and his colleagues for use as part of their program. The complete LPAD battery consists of the following tests and tasks: Raven Colored Progressive Matrices and Standard Progressive Matrices, Set Variations B-8 to B-12, Set Variations I, Set Variations II, Complex Figure Drawing Test, Numerical Progressions, Diffuse Attention Test (Lahy), Organization of Dots, Positional Learning Test, Associative Recall (Functional Reduction and Part-Whole), Reversal Test, Plateaux Test, 16 Word Memory Test, Representational Stencil Design Test (RSDT), Tri-Modal Analogies, Organizer. Some or all of these tests are administered to the learner in a “flexible, individualized, and intensely interactive three-way (task-examinee-examiner) process” (Sternberg & Grigorenko 2002: 55). Typically a learner is dynamically administered the LPAD without an initial static pretest. The reason for this, as Minick (1987: 117) explains, is that Feuerstein and his colleagues believe that for many learners such a pretest would provide yet another test-related experience of failure and frustration that would only serve to reinforce a negative attitude toward the test and toward learning, thereby jeopardizing the rest of the DA procedure. Of course, as Minick and others have pointed out, such a move prevents Feuerstein and his colleagues from being able to ascertain (i.e., quantify) the amount of improvement a learner has made as a result of the procedure and “they have resisted modifying their own assessment techniques in ways that would allow them to produce these kinds of quantitative measures” (ibid.). Following Feuerstein, Minick reasons that the kinds of changes to the assessment that
would be required to produce traditional quantitative measures might very well undermine the whole system. According to Minick (1987:138), the considerable freedom the mediator enjoys in reacting to the learner brings this approach to DA very much in line with Vygotsky’s understanding of the ZPD as a means of “diagnosing development.” Through successful mediation of the LPAD battery, the psychological processes underlying performance are brought to the surface. Indeed, Sternberg and Grigorenko (2002: 55) conclude that the significance of the LPAD is that “it provides an MLE by creating a ZPD.” Working in cooperation with the child, offering guidance, and negotiating assistance, the mediator identifies cognitive functions that are in need of attention and begins working to develop them there in the testing situation. In Vygotsky’s terms, the interaction between the mediator and the learner as they are collaborating to complete a task serves as an intermental model of the cognitive functions that the learner will eventually perform intramentally (Vygotsky 1978). This effort to “modify the cognitive structure of the individual” (Feuerstein et al. 1988: 204) that is begun during administration of the LPAD is continued in the next phase of Feuerstein’s approach to DA (discussed below).

Before moving on, a final word is in order regarding the LPAD. Rather than producing a ‘score’ or ‘grade’ to summarize the learner’s performance, the results of the LPAD procedure are used to create a profile that: a) assesses the individual’s current cognitive functions such as perception, logical reasoning, attention, and general problem-solving abilities through analyzing what he is able to do without assistance or with minimal intervention from the mediator; b) evaluates the learner’s responsiveness to particular forms of mediation as determined by how much and what kinds of mediation
are required for him to complete the assessment tasks; and, most importantly, c) provides a “sample” of the individual’s modifiability understood as how much the learner was able to improve with assistance, both during the dynamic administration of the tests and on follow-up posttests. This profile serves as the basis for an individualized cognitive education program designed to foster the development of the specific cognitive functions that the DA procedure revealed to be a source of difficulty for the individual. Feuerstein refers to this education plan as the Instrumental Enrichment (IE) program.

2.5.5 Instrumental Enrichment

Feuerstein, Rand, and Rynders (1988) define IE as “a program composed of two major elements: a set of materials—the ‘instruments’—and an elaborate teaching system based on mediated learning experience” (p. 209). Given that Feuerstein and his colleagues have primarily worked with children with various kinds of learning disabilities, it is not surprising that the specific materials used in IE focus on the development of basic cognitive functions found to be deficient during the dynamic administration of the LPAD. Exercises such as Organization of Dots, Orientation in Space, Analytical Perception, Comparisons, and Categorization are the principle tasks mediator and learner collaborate to perform. A full listing of Feuerstein’s IE instruments is provided in figure 2.3, along with a brief description of each.
1. **Organization of dots**: the learner must identify shapes and patterns represented by clusters of dots. “Successful completion requires segregation and articulation of the field” (p. 213).

2. **Analytic perception**: these exercises focus on the relationship between a whole and its parts, the various ways a whole can be divided into parts, and the multiple possibilities that exist for recombining the parts to form new wholes. The goal is to overcome the learner’s tendency for “blurred, sweeping, and global perception” that is “incomplete and imprecise” (p. 214).

3. **Instructions**: requires the learner to translate verbal instructions into a motor act and, conversely, to create verbal instructions to describe motor acts. These exercises are also helpful in emphasizing the need to breakdown directions and actions and to form plans before acting rather than respond impulsively.

4. **Orientation in space I**: designed to help learners “use concepts and a stable system of reference for describing spatial relationships” (p. 215), these exercises demonstrate that objects and events can be viewed from multiple positions and that the observer’s vantage point affects his perception.

5. **Orientation in space II**: these exercises introduce learners to the systematic use of compass points and coordinates to describe and understand positions of objects.

6. **Categorizations**: learners group items into categories based on the presence or absence of characteristics that define the category and distinguish it from other categories; as the exercises become more complex, learners develop an understanding that items can be grouped according to a variety of criteria and that they can create the necessary relationships.

7. **Representational stencil design**: following specific instructions, learners use stencils to produce a “representational reconstruction of a design” (i.e., a transformation of the design rather than an exact copy of it).

8. **Family relations**: examines the ways in which each member of a family can be identified in differently depending upon her relationship to other members of the family, but that she retains her identity all the while.

9. **Numerical progressions**: designed especially to counter an episodic grasp of reality, these exercises require the learner to identify patterns in series of numbers in order to explain the presence of the numbers in the sequence and to add more numbers to it.

10. **Comparisons**: systematic comparisons of objects and events according to set criteria.

11. **Syllogisms**: identification of relationships among members in a set and drawing logical conclusions about the set.

12. **Temporal relations**: helps learners to “understand time as both an object and a dimension,” and the “relativity of future, past, and present” and their relationship to verbal tenses.

13. **Transitive relations**: similar to syllogisms but focuses particularly on ‘greater than,’ ‘less than,’ and ‘equal to’ relationships.

14. **Illustrations**: development of explanations to describe progressions of events and changes from picture to picture in a series of images.

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**Figure 2.3: Instrumental Enrichment Program Instruments**

(Feuerstein, Rand & Rynders, 1988: 213-227)
In its current form, Feuerstein’s IE program consists of around 300 hours of exercises. Learners typically require about two years to complete the program, although there is a good deal of variance here given the range of ability levels and prior experiences that characterize Feuerstein’s participants.

While Feuerstein’s approach to DA is recognized as following one of the most individualized methodologies – and indeed as we have seen this is the crux of Feuerstein’s aversion to psychometrically-oriented procedures – Feuerstein and his colleagues generally conduct the IE program in a classroom setting with between 10 and 30 students. They maintain that the diversity of needs, strengths, and ability levels actually produces an enriched learning environment where collaboration and multiple ways of understanding move to the fore (Feuerstein et al. 1988: 210). Although Feuerstein does offer IE in a one-on-one tutoring format, he warns that “the socializing and amplifying aspects of interactions in groups will be lacking,” and suggests that the mediator take this into account as she plans her work with the learner (ibid.).

The main goal of IE, in keeping with SCM theory and the rest of Feuerstein’s approach to education, is to help the child learn how to learn by fostering the development of the prerequisite cognitive functions needed for daily living as well as for the study of academic disciplines. Feuerstein contrasts IE with other instructional programs by explaining that in his approach the emphasis is on making the student able to learn how to acquire more information and to figure out what to do with it, to make him more efficient in his efforts to acquire new skills, and to make him more able to find adaptive ways to solve problems (Feuerstein et al. 1988: 211).
To date, IE programs have been developed for and adapted to a wide range of learners, including those with Down syndrome, autism, cerebral palsy, attention deficit disorder, and hearing impairment. Given Feuerstein’s interest in remediating deficient cognitive abilities and the needs of the populations his work has targeted, IE programs have not been created for instruction of specific content domains. In fact, Feuerstein has resisted tying IE any given discipline, insisting that individuals must first develop the ability to learn before attempting to study a content area. This is a significant departure from Vygotksy’s thinking on the relationship between schooling and development, a point also made by Kozulin (2003), and one to which we will return in the next chapter. At this point we will turn to some of the empirical work that has been done in the Feuersteinian tradition. The DA procedures, the mediator-learner interactions, and the follow-up IE programs are all richly described by Karpov and Gindis (2000) and Peña and Gillam (2000). These studies will be considered in some detail in order to illustrate the insights into an individual’s learning processes that can be gained by employing Feuerstein’s model.

2.5.6 Illustrations of Feuerstein’s approach: MLE and analogical reasoning

Karpov and Gindis (2000) focused on one aspect of Feuerstein’s LPAD, analogical reasoning, as they evaluated children with learning disabilities. The authors developed a number of mediational strategies as they attempted to first determine the children’s current level of analogical reasoning and then to help them move beyond it. Largely following the work of Piaget, Karpov and Gindis identified three levels of reasoning ability: visual-motor (in which the participant relies on manipulating physical objects to complete the analogy), visual-imagery (the participant no longer needs to
physically move the objects but still requires them to be present as at this stage he
manipulates them in his mind), and the final, most advanced stage where the participant
can complete the analogies without the use of any external mediational support.

Karpov and Gindis conducted a series of case studies with children with a variety
of learning disabilities. One of the cases they report on concerns a seven year-old child
whose teachers described her as immature and as having limited cognitive and linguistic
abilities and who had been identified as having attention-deficit-hyperactivity disorder
(ADHD). Departing slightly from Feuerstein’s procedure, the authors first conducted a
static assessment to determine the child’s independent level of functioning. According to
their hierarchy of analogical reasoning, the child was unable to complete the tasks even at
the visual-motor level (i.e. her performance was not improved even by the presence of
objects she could move). When mediation began, the assessor had to offer constant
reminders to maintain the child’s focus and to direct her attention to various features of
the objects that were important for the completion of the task. Through cooperation with
the mediator, the child proved capable of analogical reasoning at the visual-motor level.
During subsequent enrichment sessions, the mediator guided the child to abandon her
reliance on physical manipulation of the objects and, with help, she succeeded in passing
to the visual-imagery level of reasoning. She then went on to selfmediate through the
use of private speech, no longer requiring assistance from the mediator. While the
authors admit that the children they studied exhibited differing levels of ability when
offered mediation (some jumped to the nearest level and a few were able to move from
the most basic to the most advanced) and were also not uniform in their ability to
maintain their level of reasoning when assistance was no longer provided, the
significance of their work lies in the diagnosis of the children’s functioning. In the case of the child just described, Karpov and Gindis concluded that she was not cognitively deficient but that she simply required instruction in how to overcome her ADHD through self-regulation (p. 151).

2.5.7 Illustrations of Feuerstein’s approach: MLE in the context of language impairment and language difference

Just as Feuerstein has argued for the identification of culturally-deprived and culturally-different learners, Peña and Gillam (2000) present a series of case studies in which they sought to distinguish children with language impairment from those whose difficulties are the result of a language difference. The authors operationally defined language impairment as “unusual difficulties learning language” (p. 543); some of the language impaired children Peña and Gillam identified struggled with learning in general while for others their problems seemed specific to language. Language difference, on the other hand, was used to refer to bilingual children and children who spoke a nonstandard dialect of the language of instruction. In a series of case studies, the authors assessed the vocabulary, narrative ability, and discourse performance of children as they engaged in a variety of tasks. Like Karpov and Gindis, the researchers broke with Feuerstein by following a pretest-mediation-posttest format but remained true to Feuerstein’s preference for highly interactive forms of mediation. For instance, Peña and Gillam attempted to facilitate the children’s use of single words to refer to objects, events, and concepts by relating the task to the children’s personal experience (“Have you ever known someone who was ________?” and “What does it mean when X said Y?”) and by
encouraging them to make predictions about hypothetical situations (“What would happen if the puzzles were moved to the art area?”) (p. 553).

In one study, the performance of a four year-old Spanish-English bilingual child on the *Expressive One-Word Picture Vocabulary Test-Revised (EOWPVT-R)* was below normal, but on the basis of her performance alone it was not possible to tell whether this was due to the linguistic and cultural bias of the test or to a genuine language impairment (p. 551). For most test items, she was either non-responsive or simply replied, ‘I don’t know.’ Through a DA procedure, Peña and Gillam were able not only to uncover the source of the child’s problem but also to provide mediation to help her overcome the problem to some extent. While her performance on the *EOWPVT-R* did not improve following mediation, she did show improvement in her ability to self-regulate and plan, as well as in her motivation and attention to the task. Based on the DA, the researchers concluded that the child was suffering from a language impairment and not just a language difference problem. They also made a series of recommendations the teacher could implement in the classroom setting to help the child develop her vocabulary despite the impairment.

2.6 Conclusion

In this chapter *interventionist* and *interactionist* approaches to DA were traced to the two contexts in which Vygotsky himself discussed the ZPD: as an alternative to intelligence testing and as a means of promoting cognitive development. In the West, many DA researchers have focused on Vygotsky’s first use of the ZPD and have developed their procedures with the goal of providing a more fine-grained analysis of abilities. In these approaches to DA, researchers are guided by a conviction that certain
cultural groups tend to have their abilities underestimated by conventional testing procedures (Budoff 1967) and that the inclusion of an intervention can help to counterbalance other variables that might be interfering with an accurate measure of ability, such as negative educational experiences (Budoff & Friedman 1964: 435). In essence, then, these approaches to DA are primarily interested in improving the predictive validity of ability measurement, and consequently proponents of _interventionist_ DA expend considerable effort to adhere to psychometric requirements in their instruments and procedures as well as in the scoring of results.

The second tradition in DA research, _interactionist_ DA, is much closer to Vygotsky’s general interest in promoting cognitive development, and indeed the work of the leading proponent of _interactionist_ DA, Reuven Feuerstein, greatly parallels the early defectology work of Vygotsky and Luria. Although differences exist between SCT and MLE, particularly with regard to Feuerstein’s claims about direct, or nonmediated, learning experiences, the two theories are highly compatible. Both perspectives maintain that procedures should be focused on both understanding and promoting learner development, and that this goal takes precedence over concerns about the quantification of examinee performance. Because of the central role of development, both traditions also endorse the use of flexible mediation in which the mediator is free to respond to problems as they arise, tuning interventions to the learner’s needs, observing the learner’s responsiveness, and making changes to the amount and kind of assistance provided. Vygotsky’s _zone of proximal development_ expresses this idea quite elegantly, and his argument that interactions in the ZPD reveal tomorrow’s independent performance has received increasing attention in recent years. As Kozulin (2003) has pointed out,
engaging learners in the ZPD is precisely what Feuerstein and his colleagues endeavor to do when they conduct intensive MLE sessions with learners. Kozulin also notes that subtle differences exist with regard to the kinds of mediation that have been emphasized in the respective research literatures, with Vygotskyans focusing largely on human mediators and Feuerstein and his colleagues stressing the mediational qualities of artifacts, or instruments. However, both forms of mediation are discussed by researchers in these two traditions, and Kozulin is quite right to point out the complementary nature of these perspectives. This point will be returned to in the next chapter, following a review of how the ZPD and DA have been used in L2 contexts to date.
CHAPTER 3 – LITERATURE REVIEW:
DYNAMIC ASSESSMENT AND SECOND LANGUAGE LEARNING

3.1 Introduction

The present chapter continues the review of the existing literature on DA but focuses on understanding the potential of DA procedures to illuminate processes of L2 instruction and development. The contributions of DA research in education and psychology were outlined in the previous chapter. It was argued that DA has been used to provide a more accurate and comprehensive view of an individual’s abilities, with the result that more information is available for decisions regarding placement of learners in programs and the allocation of funds. This is particularly true of interventionist approaches to DA whose explicit goal is to increase the predictive validity of current testing procedures. Interactionist approaches to DA, on the other hand, are less concerned with conventional notions of test validity and reliability than they are with promoting learners’ cognitive development, and in this regard they are more faithful to Vygotsky’s understanding of the ZPD. However, this has also led to a good deal of criticism from those working in traditional approaches to testing, a topic discussed in the present chapter.

As explained in chapter 1, DA is relatively unknown in Applied Linguistics. An early exploratory piece by Guthke, Heinrich, and Caruso (1986) was discussed in the last chapter as an example of Guthke’s Lerntest approach. This chapter considers the remaining L2 DA studies that have been conducted to date: one in the interventionist tradition (Kozulin & Garb 2002) and one in the interactionist tradition (Antón 2003). In addition, the work of Aljaafreh and Lantolf (1994) is also described since it was
specifically drawn upon for the design of the present study. It is important to note that
the work of Aljaafreh and Lantolf was not framed as DA, although it is an excellent
illustration of an interactionist methodology as a tutor cooperates with learners to co-
construct ZPDs during one-on-one writing sessions. In fact, the authors’ claim that the
tutor-learner interaction involves ongoing assessment and provision of appropriate
support while the learner engages in the task resembles claims about the uses of
formative assessment in the classroom. However, review of the research on formative
assessment reveals that these practices are generally not theoretically motivated or
systematically carried out. The discussion thus turns to the potential of DA principles to
focus formative assessment practices on learner development, and the work of Gibbons
(2003) is presented as a case in point. This is especially relevant to the present study,
which conducted DA procedures as learners engaged in pedagogical tasks rather than
during the administration of formal tests. Finally, the major criticisms that have been
leveled against DA from those working within the general paradigm as well as from those
in traditional assessment are summarized and addressed, particularly as they relate to the
present study’s methodology. However, before considering the DA research that has
been carried out in L2-learning contexts, the first section of this chapter deals with two
studies that incorporate DA principles into their research but, for reasons outlined below,
are referred to in the present discussion as dynamic-like assessments: Schneider and
3.2 Dynamic-like Assessments in a L2 Context

3.2.1 Teaching metalinguistic awareness strategies to L2 learners with dyslexia

Schneider and Ganschow (2000) suggest the potential usefulness of DA procedures in helping at-risk L2 learners, particularly those with problems arising from dyslexia. Building on their earlier research and that of their colleagues (e.g., Schneider 1999, Sparks & Ganschow 1993a and b), the authors suggest that awareness of metalinguistic strategies could be especially helpful for learners with dyslexia. Following the work of Baker and Brown (1984), they distinguish two types of metalinguistic awareness—knowledge of the linguistic rule system and knowledge of strategies for applying their metacognitive system. Importantly, however, DA is not described by these authors as an interactive type of assessment but, rather, as an ongoing “assessment cycle” in which teachers collect data on learners’ metalinguistic awareness and then use this information to focus instruction on specific problem areas (p. 76). They suggest that through interaction in the classroom, L2 learners can be helped to develop the knowledge and skill necessary to improve their performance.

While on the surface these proposals resemble Feuerstein’s method of connecting MLE sessions with a subsequent IE program, it is not clear from Schneider and Ganschow’s description what makes their approach dynamic. They do not report on an empirical study to validate their proposals nor do they provide protocols to illustrate their assessment techniques. It will be remembered that the heart of Feuerstein’s approach is interaction between the mediator and the learner during the administration of the assessment. It is through this interaction that the mediator is able to diagnose (i.e., to understand and remediate) the source of difficulty, and it is only through this
understanding of the problem that the MLE can be linked to the more long-term enrichment program. Simply connecting the results of an assessment to instruction does not, in itself, make the assessment dynamic. In fact, this notion is generally what is meant by formative assessment (FA), and as Poehner and Lantolf (2005) argue, FA may or may not be carried out in a dynamic manner.

3.2.2 Testing for foreign language learning aptitude

Grigorenko, Sternberg and Ehrman (2000) report on their use of a foreign language aptitude test based on a theory of learning they developed known as CANAL-F (Cognitive Ability for Novelty in Acquisition of Language (Foreign)). The essence of the theory is that learning, including foreign language learning, can be understood as the ability to cope with novelty and ambiguity (p. 392). The authors developed a formal testing instrument, the CANAL-FT, precisely to measure learners’ ability to deal with novel problems. In particular, the test presents learners with information about and exemplars of an invented language, Urusulu, and then requires them to use this information to work through a series of tasks. Along the way, they are presented with additional information about Urusulu, and their ability to make sense of this information and use it to make accurate predictions about the language is taken as an indication of their language learning ability. The CANAL-FT is comprised of nine sub-tests that target specific language areas such as semantics, syntax, and morphology.

According to Grigorenko, Sternberg and Ehrman, the CANAL-FT qualifies as an example of DA because it measures “the processes of knowledge acquisition at the time of the test” (p. 393). That is, the test is dynamic because it measures language learning ability while examinees attempt to learn a language. However, at no point during the
administration of the test is the examinee offered mediation, either in the form of hints, suggestions, prompts, or leading questions, or through interaction with another person. Thus, according to the description of DA given by two of these authors and cited in chapter 1 (Sternberg & Grigorenko 2002: vii), the work reported in this study does not adhere to DA principles because it does not include an intervention. Indeed, what the authors seem to be arguing is that the CANAL-FT is a dynamic testing instrument but, as described in chapter 1, it is the procedure through which an assessment is administered that makes it dynamic or static, not the instrument itself. Any test instrument, including the CANAL-FT, could be administered in a dynamic manner – that is, with an intervention – or in a static manner. The description given by the authors indicates that the CANAL-FT, as currently administered, falls into the latter category.

3.3 Interventionist L2 DA

Although Vygotsky scholar Alex Kozulin is currently head of research at Feuerstein’s International Center for the Enhancement of Learning Potential (ICELP), he and his colleagues do not follow the interactionist approach to DA pioneered by Vygotsky and Feuerstein in their work with ESL students. Due to the large numbers of adult immigrants to Israel who are included in their research, Kozulin and his colleagues have relied upon an interventionist format in which teaching is sandwiched between a static pre-test and post-test. The one published study that has come out of this ongoing work (Kozulin & Garb 2002) reports on the authors’ use of a dynamic procedure targeting their participants’ ESL reading comprehension skills. The pretest consisted of a short text in English followed by a set of comprehension questions. This test was first administered without mediation and then, following completion of the test, classroom
teachers who had been trained as mediators reviewed the test with their students, “mediating for them the strategies required in each item, building together with the students process models for each item, and indicating how strategies can be transferred from one task to another” (p. 119). It should be noted that the goal of this mediation stage was not simply to improve learners’ performance on the posttest (a near identical reading passage to the pretest) but, rather, to promote development. To that end, the mediation focused on general comprehension strategies that could be used on various texts, regardless of vocabulary and grammatical structures. The mediation stage also included a series of four practice texts that learners read, attempting to apply the comprehension strategies in order to answer questions that accompanied each text.

Although Kozulin and Garb’s study is problematic in that it does not provide protocols or examples to illustrate the mediation sessions and their description of the procedures lacks detail, one interesting aspect of their work is the manner in which they report the outcomes of the DA procedure. Rather than generating a qualitative report of each learner’s performance before, during, and after the mediation stage, the authors endeavored to capture the learners’ abilities with a single score. They devised a formula to calculate what they call a Learning Potential Score (LPS), somewhat reminiscent of Budoff’s gain score (see discussion in chapter 2). Kozulin and Garb define the LPS as the difference between the learner’s pre- and post-test scores. Again paralleling Budoff’s approach to DA, Kozulin and Garb used these scores to group students as low, intermediate, and high, and instructional recommendations were made for each group. The issue of how the results of DA procedures should be reported is important for the present study and will be returned to in the next chapter.
3.4 Interactionist L2 DA
3.4.1 Interactionist DA and placement in a Spanish L2 program

In a recent conference presentation, Antón (2003) reports on an interactionist DA procedure used for placement purposes in a university advanced L2 Spanish program. The significance of this work is that it represents the first attempt to use interactionist DA in a L2 context, and therefore served to some extent as a basis for the present study. Unlike the focus of this dissertation, which sought primarily to promote learners’ L2 development, Antón used her DA procedure to obtain a more complete picture of the participants’ language abilities in order to more accurately place them in the L2 Spanish program. In this regard, Antón’s work has much in common with interventionist approaches to DA that seek to improve the validity of assessment results. In effect, her study demonstrates that the DA procedure was in fact superior to a static methodology in that it revealed important differences among students that may have otherwise remained hidden. Nevertheless, it is the type of mediation Antón used that places this study within interactionist DA.

The interactive nature of Antón’s approach is best illustrated in her assessment of the participants’ oral proficiency. Students were shown a short film about a family traveling through Spain and then were asked to orally construct a narrative using the past tense to retell what happens in the film. They were evaluated on the basis of accuracy in their use of vocabulary as well as sentence-level grammar, with particular attention given to their control over the past tenses. The examiner was free to interrupt the students at various points in order to prompt them and to give them an opportunity to attempt the narration again. Students who responded to this form of prompting and improved their performance upon the retelling were taken to be at a higher level of proficiency than
those students who were unable to improve. In Vygotsky’s terms, the relevant abilities were in the process of maturing in those students who improved as a result of mediation; that is, the abilities were not yet fully matured but lay within their ZPD. Note that the following protocols have been translated into English, and Spanish is used only where absolutely necessary.

The first example occurred immediately after the student had completed the narration task. The examiner (E) was asking some questions about the student’s (S) narration, and then stops to comment on the student’s use of verb tense.

1. E: You started the story in the past and then, half way you switched
2. S: Yes, yes
3. E: To the present.
4. S: Yes, yes. I heard
5. E: Do you want to try again using the past? And you can ask me.
6. If there is a verb you do not remember it’s OK.
7. S: Yes, yes, from the beginning?
8. E: Perhaps from the middle
9. S: In the past, yes, yes.
10. E: Did you realize that you made the switch?

Antón reports that the student was then able to renarrate the story from the middle, using the appropriate past tense forms with only occasional errors.

Following Vygotsky’s description of the differences between two children’s abilities that only become manifest through interaction, Antón rightly argues that had this
learner been evaluated only on the basis of his solo performance, his ability to control the past tense would have been underestimated. It was only through interaction with the examiner – and this, it should be noted, was quite minimal – that the depth of the student’s understanding became clear. While he has not fully mastered the past tense in Spanish, the DA procedure revealed that these functions were, as Vygotsky would say, within his ZPD.

For the purpose of comparison, an additional protocol from Antón’s study is presented here. In this example, another student completing the same task exhibited the same problem maintaining the use of the past tense. In fact, this learner relied primarily on the present tense throughout. Once again, the examiner offered the learner a second chance after pointing out the mistake. This time, however, the student responds differently. He attempts to comply but exhibits a number of problems, including marking appropriate person features (using first person instead of third person forms). In fact, he is only able to use certain structures when the examiner presents him with a choice between two options.

12. S: She … arrived at the wall of the bus and … waited with her friends at
    13. the wall [Here the student uses the Spanish word *pared* ‘wall’ instead of
    14. the appropriate *parada* ‘stop’]
    15. E: Wall or stop?
       Pared o parada?
    16. S: Stop
       Parada
    17. E: Do you know what *pared* is?
19. E: It’s a very similar word, isn’t it?

In this case, the source of the problem was lexical in nature. This was important for the overall assessment of the learner’s abilities since proficiency was determined on the basis of mastery of Spanish grammar and vocabulary. In the next example, they have returned to the narrative but the student’s performance begins to break down as he struggles with the past tense.

20. S: Jugué al tennis
   I played tennis

21. E: Jugué o jugó
   I played or she played?

22. S: Jugó
   She played

A bit later in the session, a similar problem arose when the student was attempting to narrate the fact that one of the characters returned home to eat lunch.

23. E: ….Muy bien. Y aquí dijo, que hizo?
    Very good. And here you said, what did she do?

24. S: Comí
    I ate

25. E: Comí o comió
    I ate or she ate?

26. S: Comió
    She ate

27. E: Comió
    She ate

Thus, while the first student in Antón’s study was able to improve his performance after a simple one-time reminder, the second student was not. In fact, the second student was unable to produce the correct verb form without a very explicit form of assistance – the
choice between two alternatives. While this form of mediation was enough for the learner to get past the problem at that particular moment, it did not carry over since a similar situation with the verb *comer* arose later in the same session. Had Antón administered these assessments in a static fashion, both learners would have likely received similar diagnoses: they were unable to consistently and correctly use the past tense. However, the dynamic procedure revealed that the learners did in fact have different levels of control over these structures. Through the DA, Antón was able to detect these different levels and consequently placed the students in different classes.

3.4.2 Interactionist L2 DA in an ESL writing program

Aljaafreh and Lantolf (1994) report on their collaboration with ESL learners struggling to control various grammatical features in their production of compositions for a writing intensive class. Following a clinical methodology, a mediator met individually with three students in the writing class and targeted their use of tense, modal verbs, prepositions, and articles. The sessions were presented to the participants as a tutoring opportunity in which the students would bring written work they had prepared for their class and, through interaction with the mediator, they would make revisions. The sessions were held on a weekly basis for a period of eight weeks. It is important to keep in mind, as noted earlier, that this study was not specifically framed as DA. However, the goal of this work was to promote language development, understood in a Vygotskyan sense, and as such the mediator in this study endeavored to co-construct a ZPD with the participants, interacting with them in order to diagnose areas of difficulty and to help them gain control over the relevant structures. In fact, the authors describe this process
as “one of continuous *assessment* of the novice’s needs and abilities and the *tailoring* of help to those conditions” [italics in original] (p. 468).

An important feature of this study was that the mediator did not approach the interactions with a prespecified set of hints and leading questions but instead allowed the mediation to emerge from the mediator-learner collaboration. In this way, the interactions involved a constant cycle of mediational moves on the part of the tutor, responsive moves on the part of the learner, and then an appropriate adjustment to mediation based on the learner’s response. Although Aljaafreh and Lantolf did not develop an inventory of responsiveness to characterize the learner’s contributions to the interactions, their analysis of the sessions did lead to a regulatory scale that captures the relative degree of explicitness of mediation that the learners required. This is reproduced in figure 3.1 below.
0. Tutor asks the learner to read, find the errors, and correct them independently, prior to the tutorial.
1. Construction of a “collaborative frame” prompted by the presence of the tutor as a potential dialogic partner.
2. Prompted or focused reading of the sentence that contains the error by the learner or the tutor.
3. Tutor indicates that something may be wrong in a segment (e.g., sentence, clause, line)-“Is there anything wrong in this sentence?”
4. Tutor rejects unsuccessful attempts at recognizing the error.
5. Tutor narrows down the location of the error (e.g., tutor repeats or points to the specific segment which contains the error).
6. Tutor indicates the nature of the error, but does not identify the error (e.g., “There is something wrong with the tense marking here”).
7. Tutor identifies the error (“You can’t use an auxiliary here”).
8. Tutor rejects learner’s unsuccessful attempts at correcting error.
9. Tutor provides clues to help the learner arrive at the correct form (e.g., “It is not really past but some thing that is still going on”).
10. Tutor provides the correct form.
11. Tutor provides some explanation for use of the correct form.
12. Tutor provides examples of the correct pattern when other forms of help fail to produce an appropriate responsive action.

Figure 3.1: Regulatory Scale-Implicit (strategic) to Explicit
(Aljaafreh & Lantolf, 1994: 471)

The scale comprises thirteen forms of mediation in all, arranged from most implicit to most explicit. At the implicit end of the scale the tutor prompts the learner to merely read a particular sentence containing an error without giving any indication that the sentence contains one or multiple errors. In some instances, this minimal level of prompting was enough for the learner to catch mistakes and attempt corrections. When this failed to exhibit any response from the learner, the tutor then might say something like “Is there anything wrong in this sentence?” If this also was insufficient to elicit an appropriate response from the learner, the tutor would then move to an even more explicit form of mediation and so on until the learner was able to locate the problem and make corrections. Eventually, if necessary, the tutor would explicitly correct the error himself,
possibly accompanying the correction with a detailed explanation if he felt that the learner did not comprehend even when the solution was provided.

The following two protocols illustrate how these interactions were carried out. Note that in both cases, the learners were struggling with the same problem – the use of the article ‘the’ with ‘United States’ – but that the kind of mediation offered by the tutor (T) differed according to the learners’ different needs.

28. T: … There’s also something wrong with the article here. Do you know articles?
29. N: Articles, yes.
30. T: Yeah, so what’s …
31. N: Eeh on my trip to …
32. T: What is the correct article to use here?
33. N: Isn’t to is … no … eeh … article?
34. T: What is the article that we should …
35. N: It.
36. T: No. Article … You know the articles like the or a or an
37. N: The trip … my, is not my? No … the trip?
38. T: My … yeah it’s okay, you say my trip.
40. T: Okay.
41. N: To United States
42. T: Yeah, USA, what article we need to use with USA?
43. N: A, an, the
45. T: *The*, which one?
46. N: But *the*?
47. T: Okay, do we use *the* … preparing my trip to … the USA?
48. N: Aaah ah (utters something in Spanish) ah, okay when I use when I use
49. USA use with article
50. T: okay.

(Aljaafreh & Lantolf 1994: 473)

In contrast, the tutor’s interactions with a different learner in the following excerpt from a session are markedly different:

51. T: “In the same day I mailed them … to …” okay alright. What about also
52. …is there something else still in this sentence?
53. F: to the.
54. T: Hum?
55. F: the
56. T: okay, “to the” … yeah, “to the US.”

(Aljaafreh & Lantolf 1994: 474)

These two protocols are an excellent example of the use of an interactionist DA procedure to differentiate between two learners who, on the surface, are experiencing the same problem but in fact are at different levels of development. In the case of the first student, his affirmation that he knows what articles are is not supported by his subsequent performance; indeed, he even has trouble locating the error. In the case of the second learner, only a leading question from the mediator is required for him to self-correct.
Similar to Antón’s (2003) work, then, these learners would likely have been misdiagnosed as having the same level of language ability when in reality they did not.

Two additional examples from Aljaafreh and Lantolf are worth considering because they demonstrate another important feature of working in the ZPD: that development does not necessarily mean perfect independent performance but can manifest itself in a change in the type or amount of mediation an individual requires. In this case, a learner is shown struggling with verb tense during two sessions one week apart. In the first session, he is working with the mediator on marking tense in the modal phrase “I called other friends who can’t went do the party.”

57. T: Okay what else? …what about the verb and the tense? the verb and the
58. tense …
59. F: Could
60. T: Okay, here.
63. F: To.
64. T: Here [points to the verb phrase], what’s the right form?
65. F: I … go.
66. T: Go. Okay, “could not go to [that’s right] to the party …”

(Aljaafreh & Lantolf 1994: 479)

When the learner’s performance during this session is compared with his responsiveness to mediation a week later when the same problem arises, a very different picture of his abilities emerges.
T: Is there anything wrong here in this sentence? “I took only Ani because I couldn’t took both” … Do you see anything wrong? … Particularly here “because I couldn’t took both”

F: Or Maki?

T: What the verb verb … something wrong with the verb …

F: Ah, yes …

T: That you used. Okay, where? Do you see it?

F: (points to the verb)

T: Took? okay.

F: Take.

T: Alright, take.

(Aljaafreh & Lantolf 1994: 479)

In the latter session the learner is more responsive throughout. At first, of course, his responsiveness is somewhat misdirected as he interprets the tutor’s question as referring to the meaning of the sentence, and so he responds accordingly by clarifying the other person included in “both.” Then, when the mediator targets the verb with a more explicit question, the learner succeeds in providing the correct form. This is markedly different from his ability to handle the same problem only a week earlier. In the first session, the tutor had to point to the specific verb phrase in order to focus the learner’s attention on the source of the problem; in the second session, it is the learner who points to the verb phrase in response to the tutor’s questions. Thus, even though this student required support during both sessions, his level of understanding and control over the grammatical feature in question appears to have changed. Had this activity been carried
out as an assessment, the resultant picture of the learner’s abilities would have certainly variegated depending on whether the procedure was carried out dynamically or statically.

That is, in a traditional static assessment, this change in the learner’s level of ability would have likely gone undetected, and it would have been concluded in both sessions that he was not able to control English verb tense. It is only through cooperating with the individual that his ongoing, maturing understanding can be understood.

Before moving on, an interesting follow-up to this study was conducted by Nassaji and Swain (2000) that is relevant to the issue of tailoring mediation to an individual’s needs. These authors sought to determine whether or not mediation sensitive to the learner’s ZPD was necessary to improve performance or if any kind of mediation would be sufficient to help the learner move beyond what he could do independently; if both types of mediation are indeed helpful, then which one is best suited to promoting development? In a small-scale study, Nassaji and Swain paired a tutor with two ESL learners. With one of the learners, the mediation was dialogic as in the Aljaafreh and Lantolf (1994) approach. The tutor began the corrective interaction at the implicit end of the regulatory scale and moved systematically toward the more explicit end as necessary, depending on the learner’s responsiveness to the mediation. With the other learner, the tutor arbitrarily offered assistance that ranged from implicit to explicit; no attempt was made to adjust the level of explicitness to the learner’s responsiveness but instead the prompts and hints were randomly selected from Aljaafreh and Lantolf’s regulatory scale. In other words, the degree of explicitness or implicitness of the help was not determined by the learner’s responsiveness. The specific grammatical feature under analysis in the study was use of articles in English (a, an, the, and 0). The results of the study showed
that the learner receiving negotiated mediation in the ZPD had actually been less accurate when independently producing the initial composition but nevertheless showed greater improvement as a result of the mediation, outperforming the non-ZPD student on the final composition task. In addition, the authors note that the ZPD learner “exhibited consistent growth over time, a pattern not observed in the non-ZPD student’s performance” (Nassaji & Swain 2000: 48).

3.5 DA and Formative Assessment

The work of Aljaafreh and Lantolf (1994), as already mentioned, was not explicitly framed as DA but nevertheless sought to collaboratively construct ZPDs to promote learner development, and in this regard fits well with interactionist DA principles. Unlike much of the interactionist work reported in the research literature (e.g., Feuerstein et al. 1988; Karpov & Gindis 2000; Peña & Gillam 2000), Aljaafreh and Lantolf did not use a formal test instrument as part of their procedures. Instead, the learners in their study engaged with the tutor in a pedagogical task much like those that are used in L2 classrooms. In this way, much can be learned from the Aljaafreh and Lantolf study about carrying out classroom-based assessments that are sensitive to the ZPD. Because DA in the language classroom is directly relevant to the present study, some attention will be given to current classroom assessment practices, the ways in which they differ from DA, and how they might be reformulated in a dynamic manner.

3.5.1 Types of Formative Assessment

It will be remembered from chapter 1 that one approach to developing a relationship between assessment and instruction is formative assessment (FA). The defining characteristic of FA is that it is intended to provide information about the
effectiveness of instruction and learners’ progress that teachers can use as they make pedagogical decisions. D’Anglejan, Harley, and Shapson (1990) maintain that the benefit of FA is that “it allows teachers to diagnose students’ strengths and weaknesses in relation to specific curricular objectives and thus guides them in organizing and structuring instructional material” (p. 107). Ellis (2003: 312) distinguishes two kinds of formative assessment: “planned” and “incidental.” Planned FA is often modeled after more formal testing practices and usually involves use of a rating scale to document learners’ knowledge and abilities as they perform various tasks. As with formal tests, the rating scale allows for learners’ performances to be compared within and across groups. Unlike more formal tests, though, planned FA is typically carried out by teachers with the expressed goal of gathering information about learners’ abilities that will be useful in making decisions regarding subsequent instruction. Incidental FA, on the other hand, refers to the instructional conversations that teachers and students engage as part of their regular classroom activities (p. 314).

Ellis goes on to suggest that incidental FA can be further divided into “internal” and “external” forms (ibid.). The former involves “teacher questioning and probing” as well as feedback on performance while learners are completing a task. The latter focuses on the teacher and students’ reflection on performance either during completion of the task or after it. Clearly, these ways of doing formative assessment bear similarities to the approaches to DA outlined in the previous chapter. For example, questioning and the provision of feedback during task completion are common methods in both interventionist and interactionist DA. Likewise, reflection on performance seems to resemble to the role of verbalization in the Testing the Limits approach to DA.
It is important to note, however, that incidental formative assessment is not the same as DA. The differences will become clearer when actual protocols are presented below, but a fundamental divergence between incidental FA and DA, particularly in the interactionist tradition, stems from the relative importance placed upon development vis-à-vis task completion. According to Ellis (2003: 315), incidental FA contributes directly to the accomplishment of the task at hand and only indirectly to language development, and this latter contribution occurs as FA “helps learners to construct a notion of the target standards towards which they strive and enables them to compare their actual performance with the desired performance.” This is a markedly different view of the purpose of assessment from that espoused by Feuerstein who, as described in the previous chapter, argued that the primary concern of his interventions is learner development. For Feuerstein, the primary goal of DA procedures is not the completion of a given task but the promotion of learners’ abilities through engagement in the task (Feuerstein et al. 1988: 65). The central role given to development in interactionist DA is also what underlies the inclusion of the MLE attribute, *transcendence* – recalling the discussion in chapter 1 of the future, interactionist DA is less concerned with how quickly learners can be moved to a pre-determined end-point as with helping them to construct a new future.

### 3.5.2 Problematizing FA

In addition to the goal-related differences that exist between DA and current FA practices, the two also diverge along other lines, namely their systematicity and theoretical grounding. Poehner and Lantolf (2005), in their critical review of the L2 FA literature, conclude that formative assessments tend to be “hit-and-miss” with regard to
the promotion of learners’ development. That is, the interactions between teachers and learners sometimes create opportunities for development to occur, but not always. Torrance and Pryor (1998: 91) conducted a series of classroom observations and similarly found that while teachers create “good openings” for learners to develop, these are generally not fully explored. Instead, teachers tend to rely on intuition and their “commitment to child-centered ‘gentleness,’” to guide their interactions with learners. Torrance and Pryor acknowledge that this type of behavior may still have an impact on learning, but note that the impact may be unintended and may not even be recognized by the teacher (ibid.). According to these authors, this is due to the teacher’s lack of a theoretical understanding of development and of how one can effectively intervene in developmental processes. The result is that teachers often shift their attention to managing their interactions with learners instead of helping learners develop.

Torrance and Pryor (1998: 89-90) provide the following as an illustration of a typical classroom FA interaction. This example is taken from a grade 2 classroom in the UK where the teacher (T) provides feedback to one of the students, Timmy (Tim), on a recent spelling test.

78. T: here we are – Timmy Patner
79. Tim: I knew I’d got nine or eight – or something like that =
80. T: = six
81. T looks directly at Timmy, who does not meet his gaze.
82. T: -did you find it a bit of trouble then?
83. Tim: yeah
84. T: which bits did you find did you find the four extra words a bit difficult
84. did you?

_Timmy nods._

85. T: OK shall we look at those then – difficult – you nearly got right – there

86. should be an ell there

_T writes in book._

87. Tim: cut

88. T: yes you’ve got difficult with an ell it goes cult you see –

_T looks up at Timmy again, who still does not look at him._

Following Torrance and Pryor, it is worth pointing out the opportunity to explore the extent of Timmy’s understanding that is lost here. Rather than beginning the interaction by working with Timmy to identify problematic words, the teacher tells Timmy which words – the last four – will be the topic of their discussion. The teacher then begins with the word difficult, but instead of including Timmy in the process of identifying and correcting the error, he simply produces the correct form while Timmy remains uninvolved, at least overtly. Importantly, the teacher makes no effort to ascertain whether Timmy recognizes the corrected spelling or understands why it is correct. Instead, the teacher moves on to the next word in the list:

89. T: OK – and s\ night was fine – f\family you had one go and crossed it out

90. – tried again and gave up – yes

91. Tim: no it’s just I didn’t get enough time to do it =

_As he speaks Timmy makes a circular motion with his right hand which he then withdraws again behind his back._

92. T: = oh dear never mind yes – we were a bit rushed yesterday weren’t we -
T writes as he is saying this.

Tim: yeah I was going to do that but I couldn’t ->(**)<

Timmy points to where the T is writing as he says this. He then withdraws his hand again.

T: >oh< were you – oh well never mind because –

T looks up at Timmy who this time meets his gaze.

T: it was possibly my fault – for not giving you as much time as we had last week – but – and surprise –

T writes in book again.

In this instance, the teacher once again creates an opening for development to occur but does not follow through. When Timmy indicates in line 91 that his trouble with the word *family* was actually the result of insufficient time to complete the test, the teacher could have allowed him to re-attempt the word. Timmy’s degree of success would have indicated the true reason he had not spelled the word correctly, and his interactions with the teacher may have revealed the source of any trouble he was having. Unfortunately, these insights do not emerge from the exchange as the teacher chooses instead to address the time constraints of the test, accepting some of the responsibility for Timmy’s performance. While such a move on the teacher’s part may make Timmy feel better about his grade, it does not help him to improve. The pair then considers the final two words:

T: we need to just – that was one of the hardest wasn’t it surprise – OK and *friends* – a little aye – do you think – do you have a good practice of
100. these words – did you?
101. Tim: yes
102. T: good – all right so you tried your hardest – that’s all I want you to do –
103. try your hard\)

Once again, Timmy is not encouraged to participate in correcting the mistakes, and the teacher concludes the interaction with words of encouragement and affective support.

Torrance and Pryor observe that, despite the teacher’s good intentions, there is no indication that Timmy has learned anything from this exchange. In fact, the teacher has not gained any insights into the reasons behind Timmy’s performance on the test, nor is he better positioned to offer Timmy appropriate instruction in the future. The authors suggest that the teacher fails to fully appreciate “the relationship of assessment to learning” and therefore views the assessments as distinct from true learning activities (p. 91).

Rea-Dickins and Gardner (2000), arguing on the basis of their research into FA practices among ESL instructors in the UK, agree that teachers generally do not have a strong theoretical understanding of the processes of development. They observe that this yields assessments whose procedures are unsystematic and whose results are questionable (p. 238). These authors carried out interviews with teachers and found that FA is generally recognized as a valuable part of instruction. Specifically, four ways in which FA impacts classroom instruction were identified in the teachers’ responses: it helps teachers plan and manage their instruction; it provides evidence of student learning; it indicates the extent to which curricular objectives have been met; and it provides evidence for evaluating teacher effectiveness (pp. 229-230). Moreover, Rea-Dickins and
Gardner argue against the traditional view that high-stakes testing refers to large-scale, externally imposed tests and that classroom assessments are relatively low-stakes. Instead, they note that high-stakes decisions are often predicated on learners’ in-class performance (p. 237). Owing to the unsystematic nature of the assessments, learners’ abilities may be under or over estimated, with the result that the learner does not receive appropriate instruction (p. 238).

3.5.3 Dynamic Formative Assessment

Gibbons (2003) provides an excellent example of how FA might be carried out dynamically. Her work is not discussed in terms of either formative assessment or dynamic assessment, but rather as students’ learning in the ZPD. However, because it involves a teacher mediating students’ performance during a classroom activity, it fits well with the principles of both DA and incidental FA described above. Importantly, Gibbons’ study also breaks with the tradition in ZPD research of considering only expert-novice dyads and explores the possibility of constructing a ZPD with a group of learners. Gibbons correctly points out that this idea was mentioned by Vygotsky himself (Vygotsky 1998: 204), and operates in much the same way as one-on-one ZPD interactions, with a mediator constantly fine-tuning assistance to the responsiveness of learners. The difference is that in this case multiple learners are engaged with the mediator in collaboratively completing an activity.

Gibbons (2003) observed teachers’ interactions with eight- and nine-year-old students during group discussions in which the learners attempted to use scientific terminology to report the results of physics experiments. In the excerpt that follows, the learners are discussing an experiment on magnetism. As Gibbons (p. 247) points out,
they tend to use everyday language, including terms such as “stick” “hold” and “push,”
but through the mediation provided by the teacher, “students’ contributions to the
discourse are progressively transformed across a mode continuum into the specialist
discourse of the school curriculum.”

104. Teacher: Tell us what happened
105. Beatrice: Em we put three magnets together / it still wouldn’t hold the
106. gold nail.
107. Teacher: Can you explain that again?
108. Beatrice: We / we tried to put three magnets together .. to hold the gold
109. nail .. even though we had three magnets .. it wouldn’t stick.

(Gibbons 2003: 264)

The teacher begins the group discussion with a simple prompt that the students should
describe what occurred during the experiment. Beatrice responds but does not make use
of scientific terms, and so the teacher indicates that Beatrice’s answer was not entirely
appropriate by asking her to try again. This form of mediation is clearly quite implicit, as
no feedback was given concerning what Beatrice should do to improve her response. As
Gibbons points out, Beatrice’s use of the expression “even though” suggests a causal
relationship, and so it appears that Beatrice has some understanding of the principles at
work but is struggling to use the appropriate scientific discourse to express herself.

The teacher then brings another student into the interaction, Michelle:

110. Teacher: Tell us what you found out.
111. Michelle: We found out that the south and the south don’t like to stick
together.
Teacher: Now let’s / let’s start using our scientific language Michelle.

Michelle: The north and the south repelled each other and the south and the south also .. repelled each other but when we put the / when we put the two magnets in a different way they / they attracted each other.

(ibid.)

The teacher begins once again with the same prompt, and Michelle’s answer reveals an attempt to use terms appropriate to the context (e.g., the “south” end of a magnet) but like Beatrice, she also relies on everyday terms such as “stick.” The teacher then moves to a more explicit prompt in line 113, identifying that the problem with Michelle’s answer was that she had not couched her description in scientific terms. The learner responds successfully, using the terms attract and repel to describe the behavior of the magnets.

Poehner and Lantolf (2005), in their analysis of this same episode, argue that the learners’ actual level of development was rooted in a concrete understanding of the experiment, which they described using everyday language. A more generalized description that relied on the use of scientific terminology lay within their ZPD because they were able to perform appropriately when offered reminders from the teacher. That is, the students in this interaction were not able to use the terms independently, but they also did not need the teacher to provide the appropriate language. Poehner and Lantolf point out that from the perspective of DA, the students’ ability in this case only manifested itself during the group’s interaction with the teacher; assessments of the students’ knowledge without this kind of mediation would have likely underestimated their knowledge.
3.5.4 Scaffolding versus Transcendence

A final point worth considering if formative assessments are to be carried out dynamically is the relationship of the assessment task to learner development. As discussed above, the general assumption is that FA impacts learning because, by definition, it is intended to feed back into instruction. However, as should be clear from Torrance and Pryor’s (1998) findings, current FA practices only bring about development in a “hit-and-miss” fashion. In comparison with the work of Gibbons (2003) on group learning in the ZPD, the underlying issue in FA is that teachers’ feedback is not calibrated to be appropriate to learners’ ZPDs. Of course, a teacher’s moves may bring about development by simple chance. The goal of DA is to maximize the possibility that interactions will result in development by calling for the teacher to fine-tune instruction to the learner’s ZPD. Aljaafreh and Lantolf (1994: 468) describe this process as “one of continuous assessment of the novice’s needs and abilities and the tailoring of help to those conditions” [italics in original].

Of course, claims regarding learner development must take account of not only changes in performance on the assessment task but also during other activities. The previous chapter highlighted that one of the defining components of both Brown’s Graduated Prompt Approach to DA and Feuerstein’s Mediated Learning Experience is the argument that development – as distinct from training – goes beyond the initial assessment and manifests itself in various ways. This is the reasoning behind Brown’s inclusion of transfer assessments and Feuerstein’s creation of assessment tasks of increasing difficulty and complexity. It was also pointed out in the previous chapter that this view of learning as transcending the assessment means that the mediator’s goal is not
simply to get the learner through the task at hand, but rather to use their interaction as an opportunity to understand and promote the learner’s abilities. Within the domain of formative assessment, this means that arguments concerning the procedures’ impact on learning must show not only that learners are taking on more responsibility for completion of the assessment task but that there was some form of transfer or follow up to the assessment. Thus, Leung and Mohan’s (2004) claim that in some FA interactions teachers successfully scaffold learners’ performance may be accurate, but this still does not mean that development occurred. Instead, changes in performance may be the result of training, as in Budoff’s *Learning Potential Measurement* described in the preceding chapter.

Newman, Griffin and Cole (1989) make a similar distinction between assessment by teaching and assessment while teaching. Working from a Vygotskyan perspective, these authors conducted an extensive study of learner development in classroom settings. They recognize that in traditional classroom instruction assessment plays an important role, with period evaluations of learner performance carried out to determine individuals’ current level of independent ability (p. 77). These researchers argue that underlying this model is a strict “learning hierarchy” whereby learners pass through “a sequence of increasingly difficult tasks” (ibid.). In this approach, instruction is focused on moving students from one level to the next as quickly as possible, and assessments are used to gauge how successfully this is done. Assessment-by-teaching, on the other hand, assumes no such “sequence of levels to be mastered in an invariant sequence with a single correct route to mastery” (p. 78). Instead, in assessment-by-teaching, which they see as DA, there is recognition of the creative and unpredictable nature of development.
This means that signs of development will show up in various ways (e.g., changes in the kind of mediation needed and responsiveness to it) and under different circumstances (i.e., a repetition of the same task but also during engagement in other tasks). It also means that, while teachers will no doubt organize material according to their own beliefs about their difficulty and complexity, they must also be aware that development can occur in unanticipated directions and at unanticipated rates. As Newman, Griffin & Cole (1989) explain, the role of the teacher is to be present to provide appropriate mediation that will maximally promote learner development while at the same time being prepared to withdraw that mediation as learners take on increasing responsibility for the task (p. 87).

### 3.6 Criticisms of DA

So far this chapter has reviewed the theoretical premises of DA and has discussed the dominant research strands that have emerged over the last quarter century. Despite the ongoing efforts of proponents of interventionist and interactionist DA to present evidence of the legitimacy of their work, and the increasing interest in DA among researchers in psychology and general education, a good deal of criticism has been leveled against DA. These concerns have emerged primarily – although not exclusively, as explained below – from those working in more mainstream approaches to assessment. Criticisms of DA can be grouped into two interrelated categories: theoretical and methodological. On the theoretical side, some researchers have expressed concern about the nature of the underlying constructs that dynamic procedures purport to assess: If abilities are modifiable rather than stable, to what degree can any assessment claim to accurately measure them? This then relates to the methodological criticisms of DA, which have
generally focused on DA researchers’ lack of adherence to conventional forms of standardizing testing procedures and scoring. These concerns are addressed in the following subsections, where it is argued that both the theoretical and methodological criticisms stem from a lack of understanding and/or acceptance of Vygotsky’s view of mental abilities that was described earlier in this chapter. It should be noted that the following discussion pertains primarily to interactionist approaches to DA such as Feuerstein’s. There are two reasons for this. First, the lion’s share of criticisms of DA have targeted Feuerstein because he and his colleagues diverge the most from traditional concerns of standardization; indeed, many interventionist researchers, most notably Guthke, have gone to great lengths to employ psychometric methods in the development of their test instruments, their administration procedures (including, of course, standardization of the mediation they offer), and their scoring and interpretation of assessment results. Moreover, discussion of the criticisms leveled at Feuerstein is relevant here since the DA approach used in the present study closely followed Feuerstein’s proposals regarding flexible interaction between mediator and learner.

3.6.1 The purpose of assessing: Measurement or interpretation?

Snow’s (1990) review of Lidz’s (1987) edited volume on DA makes several revealing comments about the place of DA research alongside more traditional approaches to assessment. With regard to Minick’s critical study of DA approaches and their interpretations and applications of Vygotsky’s proposals (see discussion earlier in this chapter), Snow asserts that the theoretical links to Vygotsky “may only matter to purists” (p. 1135). This reluctance to engage with the cornerstone of DA leads Snow to mistakenly assume that dynamic and static procedures share the same understanding of
abilities. As should be clear at this point, DA has a radically different view of mental abilities, arguing that their defining characteristic is their modifiability rather than their stability. Indeed, the very terms DA researchers have suggested to distinguish their work from more mainstream assessment procedures, dynamic and static, are indicative of these different views of human abilities. Glutting and McDermott (1990: 300), in their critique of DA, also hit upon this same issue. For these authors, the proposed dynamic nature of human abilities undermines the use of traditional psychometric methods of analysis and interpretation. For instance, they respond to Feuerstein’s insistence that the purpose of DA procedures is to promote learning within the assessment by arguing that this jeopardizes the test’s internal-consistency reliability. That is, the possibility of an individual learning during an assessment is a threat to the procedure’s reliability because the object (i.e., ability) the test is supposed to measure is changing. Consider the example of an examinee who does less well on earlier test items than on later ones. In a DA framework, this means the procedure is successful because the individual is learning, and an analysis of the mediation that brought about this change in performance is crucial for subsequent instruction. According to Glutting and McDermott, however, such an individual poses a problem to traditional psychometric methods of performance analysis because the ‘amount’ of ability that the individual ‘possesses’ is not constant over time, with the result that the test must try to capture a moving target. Consequently, assumptions regarding the difficulty level and discriminating power of test items have to be called into question, since these are predicated upon a static view of abilities. Referred to as instrument decay in the testing literature, this phenomenon is said to undermine “the validity of performance interpretations” (ibid.).
The point that underlies these criticisms is the lack of congruence between traditional psychometric methods to testing and the theoretical framework of DA. In this respect, I agree with these authors but I part ways with them when they conclude that DA’s lack of adherence to traditional methodologies means that it is an invalid way of assessing. Instead, the implication of this incompatibility is that because DA understands its object of study differently from static approaches, it must necessarily adopt different methods of analysis. This means that the evaluation of work by DA researchers such as Feuerstein, who embrace Vygotsky’s (1998) call to understand individuals rather than to measure them, should be done according to criteria appropriate to their goals rather than the traditional understandings of validity and reliability. This is because DA privileges development of the individual over the psychometric properties of the test and its administration. The following subsections consider these issues in more detail.

3.6.2 Standardization, reliability, and the problem of learning

The preceding discussion of the divergent theoretical understandings of human mental abilities represented in SA and DA – stable traits possessed by learners or modifiable qualities that emerge from social interaction, respectively – have given rise to very different assessment practices. Static assessments are concerned with issues of standardization and reliability. On this view, all aspects of test administration must remain the same for every examinee so as to avoid contamination of the measure by other factors; in this way, one maximizes the extent to which the resultant score is a ‘pure’ indicator of the individual’s abilities. Consequently, any deviation from the outlined procedure, especially the provision of cultural artifacts or interaction with another person, is usually considered cheating and a threat to test-retest reliability. In other words, just as
Glutting and McDermott (1993) argued above that learning during an assessment is a problem for a test’s internal-consistency reliability, interacting with an examinee jeopardizes test-retest reliability because an individual may receive more or less (or different) help at two points in time. According to these authors, without a highly reliable assessment procedure – that is, one which produces very similar results for the same individual, again and again – one cannot confidently draw conclusions about an individual’s abilities.

Büchel and Scharnhorst (1993) make a similar claim in their attack on Feuerstein’s MLE. While they admit that measurement may be “too ambitious a term in the context of psychological assessment,” they go on to argue, “If we accept predictions made on the basis of unreliable observation, we cannot reasonably refuse predictions that are not based on observation at all” (p. 103). Thus, for Büchel and Scharnhorst, the fact that an individual might perform differently at two points in time makes the “observation” of that person’s abilities unreliable and therefore of little or no value. Moreover, their use of the word observation is not accidental, since it denotes detachment and lack of participation, which as Sternberg and Grigorenko (2000: 29) point out, are the hallmark of traditional examiner-examinee interactions. Indeed, Büchel and Scharnhorst maintain that a confounding variable in Feuerstein’s research is that it is difficult to distinguish the mediator’s contributions to the performance from the learner’s.

Of course, Feuerstein’s response to these criticisms is not only to acknowledge that the MLE lacks internal-consistency and test-retest reliability but also to insist that in DA all possible steps must be taken “in order to undo the predictive value of the initial assessment by modifying functioning through the mediational process” (Feuerstein,
Rand, and Rynders 1988: 199). This is because Feuerstein, like Vygotsky, is interested in understanding the processes that bring about development, and this necessarily entails learners developing as part of the assessment. While reliability may be a desirable characteristic of a test, it is a highly undesirable outcome of a DA procedure, which seeks to bring about change. In this way, a highly reliable assessment is problematic because it suggests that the procedure failed to promote development. As Lidz (1991) cogently puts it, “the word ‘dynamic’ implies change and not stability. Items on traditional measures are deliberately selected to maximize stability, not necessarily to provide an accurate reflection of stability or change in the ‘real’ world” (p. 18, italics in original).

### 3.6.3 Validity and development-referenced assessment

The issue of change is central not only to questions of reliability but also validity. For instance, both concurrent validity and predictive validity establish an assessment’s legitimacy by correlating its results with those of some other assessment, given either at the same time (concurrent) or later (predictive). The higher the correlation between the two assessments, the more valid the assessment is said to be. Of course, establishing an assessment’s validity on the basis of its correlation with another assessment that itself may or may not be valid poses certain logical difficulties. For example, Ratner (1997: 48) argues strongly against this sort of “mechanical correlation.” He points out that a lack of correlation between two measures does not necessarily indicate that either of the measures is invalid, nor does a strong correlation suggest that they are valid. In the case of the former, it may be that the same phenomenon expresses itself differently under various circumstances; in the event of high correlations, one may be simply observing similar behavior that has very different underlying causes. Ratner concludes that
establishing validity through correlations means that one can never truly know if results are valid.

In the context of DA, traditional approaches to establishing validity are once again complicated by the assessment’s goal of helping learner’s to develop, which clearly runs counter to efforts to establish correlations. The question of predictive validity is especially interesting. Returning to Snow’s (1990) criticisms of DA, he argues that the terms “static” and “dynamic” are a mere “propaganda device” (p. 1134) because all assessments are interested in making predictions or generalizations beyond the immediate testing context. What Snow fails to appreciate is the qualitative difference in the kind of prediction that static and dynamic assessments make. To recall the discussion from chapter 1 of Valsiner’s (2001) models of the future in psychological research, static assessments assume the future to be a smooth continuation of the present. This view of the future ignores the possibility of an intervention that might set development on a different course, which is the goal of dynamic assessment. For DA the future is always emergent and can only be understood in the context of interaction between a mediator and a learner, whereby collaboration allows one to see where the learner might go and how she can be helped along her way. Thus the validity of a DA procedure is best understood as the extent to which it promotes development.

The central role of development in DA is not adequately conveyed using traditional assessment terminology. For example, criterion-referenced assessment describes the success or failure of examinees to meet some predetermined level of knowledge or ability. Norm-referenced assessment, on the other hand, defines a person’s performance in relation to how well other examinees do. In both cases, standardization
and lack of interaction are assumed. An interactionist approach to DA, such as that followed in the present study, can more appropriately be thought of as development-referenced. In other words, its effectiveness can be evaluated with regard to the development that occurs.

Interestingly, this notion is implicitly present in the criticisms of DA. For example, Feuerstein, Rand and Rynders (1988: 205) state that in DA, “very little attention is given to product or to the absolute magnitude of a result. More importance is attached to learning about the process that has brought about a particular product.” In response, Büchel and Scharnhorst (1993: 100) retreat to the traditional, hard and fast bifurcation between learning situations and testing situations, suggesting that Feuerstein’s approach to DA belongs to the former category and not the latter. The authors go on to cite the work of Burns (1984), who did a comparative study of the effectiveness of a static assessment, Brown’s Graduated Prompt Approach, and Feuerstein’s MLE on bringing about development. Burns concluded that Feuerstein’s flexible interaction with the participants was most the successful of the three, as evidenced by learners’ post-test performances. This finding is taken by Büchel and Scharnhorst as evidence of the validity of Feuerstein’s methodology as a pedagogical tool, but not as an assessment procedure. They argue that “if assessment is to be a scientific enterprise, i.e., if measures are to reflect more than arbitrary results, then we must accept a compromise between the educational and the diagnostic function [of a dynamic assessment].” Even Snow (1990), amidst similar criticisms of DA for not making measurement its primary objective, admits that dynamic assessments give “richer descriptions of human cognitive performance and its responsiveness to intervention than do conventional assessments” (p.
The issue is that these authors see DA’s insights and potential for helping individuals develop as coming at too great a cost to the procedure’s psychometric properties, but this is because they continue to understand assessment as criterion-referenced or norm-referenced, rather than development-referenced.

3.6.4 Criticism from within: Learner reciprocity

In addition to being the subject of criticism from those in more mainstream approaches to testing, dynamic assessment has also been critiqued by researchers who themselves work in a DA framework. As described in chapter 2, some DA researchers, such as Budoff (1987), have been critical of the analyses in the DA literature of the learner’s contributions during a dynamic session. In particular, these concerns have to do with how much of a learner’s performance during a dynamic assessment can be attributed to the learner and how much is the result of mediation provided by the assessor. This concern is intensified by the very real pressure DA researchers sometimes face to report their findings in ways that adhere to traditional measurement methodologies. As described above, interventionist DA researchers have relied primarily on two innovations to respond to these concerns and to produce results that adhere to traditional psychometric understandings of reliability: standardized training stages between pre- and post-tests (e.g., Budoff’s learning potential assessment) and adherence to hierarchies of standardized prompts during the dynamic administration of a test (e.g., Campione and Brown’s graduated prompt approach).

To be sure, DA researchers working in an interactionist framework have been critical of these solutions, pointing out, for instance, that “the input or training phase is often not as standardized as it looks” precisely because “children differ in the ways they
respond to the adult’s input, and therefore elicit different quantities and methods of help from that adult” (Van Der Aalsvoort and Lidz 2002: 115). Van Der Aalsvoort and Lidz (2002), following a Feuersteinian approach to DA, agree with Budoff that performance in DA is the result of contributions from both the mediator and the learner, but they differ from Budoff in that they see this as a strength rather than a weakness. Their goal is not to control for the effects of the mediator but to understand an individual’s responsiveness to the specific forms of mediation that are offered and, in some instances, requested, accepted, or refused by the learner. They explain this as follows:

The relationship between the teacher’s, or trainer’s, and the child’s contributions to the interaction during assessment need to become much more clear. Only then it is possible to keep track of the input and the results of this input as the expression of the learning potential assessment of the child (pp. 115-116).

This is an important point that Van Der Aalsvoort and Lidz make. The strength of DA research, particularly from an interactionist perspective, is that it links the mediation provided during the assessment to a follow-up mediation program so that assessment and instruction are fully integrated since both are concerned with co-constructing a ZPD to promote learner development. Nevertheless, Van Der Aalsvoort and Lidz argue that this integration can only be accomplished if the learner’s involvement in the assessment is clearly understood. According to these authors, the learner is all too often overlooked, even in the clinical work of Feuerstein and his colleagues, where descriptions of the learner’s moves during the interaction are often limited to simply indicating that the mediation was or was not adequate to lead the learner to the correct solution. This can result in a somewhat lopsided account of the cooperation that occurs in the ZPD.

It should be remembered that the heart of SCT is that cognitive changes result from “the productive intrusion of other people and cultural tools in the [developmental]
process” (Newman, Griffin & Cole, 1989: 68). This means that the unit of analysis for the study of development should not be the individual acting alone, but the interpersonal functional system formed by people and cultural artifacts acting jointly to bring about development. Contrary to the dominant models of psychology and education, the individual alone is not the appropriate unit of analysis for the study of development. Vygotsky argued that models that attempt to understand development separate from the environment misunderstand the nature of development:

One of the major impediments to the theoretical and practical study of child development is the incorrect solution of the problem of the environment and its role in the dynamics of age, when the environment is considered as something outside with respect to the child, as a circumstance of development, as an aggregate of object conditions existing without reference to the child and affecting him by the very fact of their existence. The understanding of the environment that developed in biology as applied to evolution of animal species must not be transferred to the teaching on child development (Vygotsky, 1998: 198).

The social environment does much more than simply provide the resources necessary to bring about change; instead, the individual and the environment exist dialectically, and the one cannot be understood apart from the other. From this perspective, understanding development means understanding the continual negotiation that occurs among individuals and artifacts in the environment as mediational means are transformed and internalized, re-appearing on the intramental plane of cognition. Thus, Van Der Aalsvoort and Lidz’s (2002) argue that the primary concern in DA is not the quantification of how much assistance a learner requires but an in-depth analysis of the interaction between the learner and the assessor and other mediational artifacts that leads to improved performance and development. Following Wertsch’s (1984) portrayal of the ZPD as not something elicited by mediational means but rather created through the bi-directional interaction between the adult and the child, Van Der Aalsvoort and Lidz call
for a re-examination of DA sessions that would highlight the learner’s activity. In particular, they urge DA researchers to pay more attention to what Lidz (1991: 110) terms learner reciprocity.

According to Lidz, learner reciprocity can be understood as “the level of receptivity of the child to the mediational intentions of the adult. How open is the child to input from the mediator? How able or willing to ‘receive’ or cooperate?” (ibid.). In her own work, which closely follows Feuerstein’s approach, Lidz has targeted the MLE intentionality as particularly needing to be reconsidered, and more recent descriptions of the MLE have expanded this attribute to include what Feuerstein and colleagues term reciprocity (Feuerstein et al, 1988; see also discussion in chapter 2). Van Der Aalsvoort and Lidz (2002), however, suggest that a learner’s response to mediation is not unidimensional (p. 122), and through grounded analysis of DA protocols they have developed the following scale:

- Responsiveness of interaction with mediator
- Self-regulation of attention and impulses
- Affective quality of interaction with mediator
- Communication related to shared activity
- Comprehension of activity demands
- Use of mediator as resource
- Reaction to challenge
- Modifiability in response to interaction

Figure 3.2: Response to Mediation Rating Scale
(Van Der Aalsvoort & Lidz, 2002: 122)

It should be kept in mind that the authors have focused on pre-school aged children in their research and have not attempted to apply it to other populations. Thus, while Van Der Aalsvoort and Lidz’s methodology of analyzing interactions to identify the types of
responsive moves on the part of the learner was important for the present study, the specific categories of responsiveness differed from the above in significant ways. The responsiveness to mediation of learners in the present study is discussed in detail in the next chapter.

3.7 Conclusion

This chapter attempted to both outline the relevance of DA procedures to Applied Linguistics, particularly with regard to rethinking current classroom formative assessment practices, as well as address some of the major criticisms that have been made by those in the testing community. Although DA is new to Applied Linguistics, there have been some studies that have explored applications of these procedures to L2 instructional contexts. Some of these have fallen short of the mark by losing sight of what makes a procedure dynamic – the provision of mediation during the assessment procedure itself in order to promote learner development. This was the case with the research reported by Grigorenko, Sternberg, and Ehrman (2000) on the CANALF-T. Other studies have been more successful. For example, Kozulin and Garb (2002) developed an interventionist approach to DA that they are currently using with adult immigrants in Israel studying ESL. These authors have devised a single score, the LPS, that captures the learner’s change in performance after mediation and takes into account the amount of mediation required. This manner of reporting the results of a DA procedure is not without its problems, as discussed in the next chapter, but it is in keeping with the general tendency in interventionist DA to adhere to traditional methods of psychometric analysis. That is, both the procedure for scoring a learner’s performance and the mediation that is provided to the learner are standardized so that results can be quantified and more easily analyzed.
using accepted methods within the testing community. Antón (2003), on the other hand, has explored the use of interactionist DA in a L2 setting. Her work demonstrated that use of DA with undergraduate Spanish L2 learners led to different views of their abilities and resulted in placement decisions that were better informed.

The work of Aljaafreh and Lantolf (1994) was not framed as a DA but nevertheless is quite relevant to the present study because it offers a detailed analysis of mediator-learner interactions in the ZPD. The study highlights the fact that learner development can manifest itself not only through improved independent performance but also through changes in the nature of the interaction (e.g., changes in the kind of mediation required and in learners’ responsiveness). Moreover, the quality of the dialogic collaboration between mediator and learner in the study provides a model for rethinking current formative assessment practices. FA, as noted by Rea-Dickins and Gardner (2000) can be considered high-stakes because of the important decisions that are made on the basis of day-to-day informal interactions between teachers and students. DA, particularly in the interactionist format, can make these interactions more systematic by providing a theoretical basis for teachers to understand development, thereby increasing the confidence with which one can make claims about learners’ abilities.

Despite all that DA has to offer, it has not been fully accepted by those familiar with more traditional assessment methods. Interactionist DA in particular has been harshly criticized for its lack of quantification. Proponents of DA, most notably Reuven Feuerstein and his colleagues, insist upon a flexible use of mediation. Because of their general disinterest in comparing the performance of an individual against a pre-established criterion or a norm, interactionist DA researchers have generally not made
efforts to meet traditional standards of reliability and validity. Of course, as Sternberg (2000) observes, most criticisms of this research have been made by those who “are comfortable and familiar with static tests” (p. xiv), and the sacrifice interactionist DA makes in terms of test properties (e.g., standardization, reliability, and validity) is what allows it to be so effective in promoting development. For this reason, an alternative approach to understanding DA procedures was suggested. Considered as “development-referenced assessment,” DA can be considered in terms of its effectiveness at promoting learner development. This includes not simply changes in an individual’s ability to perform a given task but also how well she is able to carry her learning beyond the assessment task, the kind of mediation she requires to do so, and how responsive she is to that mediation. All of these issues are relevant to the next chapter, which describes precisely how the assessments and enrichment program were carried out and how the results were analyzed.
CHAPTER 4 – RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

The present chapter describes the context in which the research was carried out and the methods used to explore the research questions outlined in chapter 1. In particular, this chapter discusses the various assessments that were conducted and their connection to the enrichment program, which was inspired by Feuerstein’s Instrumental Enrichment and based in large part on Negueruela’s (2003) concept-based approach to language instruction. At the outset of the study (time 1), participants underwent a static (SA1) and a dynamic assessment (DA1) in which they watched a brief video clip and then narrated the scene in French. The results of these assessments were then used to structure the enrichment program because they provided insights into: 1) the kinds of problems learners encountered while completing the tasks; 2) the amount and quality of collaboration with the mediator they required in order to overcome these problems. Enrichment was then conducted in the form of one-on-one tutoring sessions, which focused primarily on verbal aspect, a problem area for the learners that was identified during the initial assessments. The goal of enrichment was to help learners develop a conceptual understanding of aspect that would allow them to more appropriately use the passé composé and the imperfect. Following enrichment (time 2), the initial assessments were repeated (referred to as SA2 and DA2, respectively). In addition, two “transfer assessments” (TR1 and TR2) were conducted to understand the extent to which participants could extend their learning beyond the original assessment context – a necessary step to fully assess development. The analyses presented in subsequent
chapters compare learners’ performances during each of these assessments to shed light on their control of verbal aspect and the processes of their development.

This chapter introduces each of the participants and describes the course from which they were recruited. The discussion then turns to the enrichment program and the details of the approach followed to remediating learners’ understanding of and control over the passé composé and the imparfait. Following this, the assessments themselves are considered, including the tasks and materials that were used and the nature of the mediator-learner interactions. The data analysis procedures are then explained.

4.2 Context of the Study

4.2.1 Oral performance of advanced learners of L2 French

The decision to focus the assessments on oral performance was motivated in part by the growing interest among language testing researchers in examining spoken interactions (Swain 2001; McNamara 2001). In fact, Johnson (2001) has even called for re-thinking the ACTFL-OPI from a Vygotskyan perspective, suggesting the potential relevance of concepts from SCT such as mediation and the ZPD. Advanced learners\(^8\) of L2 French were recruited for the study because a review of the SLA research literature reveals that this population is largely underrepresented, with the majority of published studies focusing on intermediate and beginning level language learners. However, practical experience suggests that even at the advanced level language learners are far from a homogeneous group. In fact, this gets at the second reason advanced learners were selected for the present study: as with Vygotsky’s research on IQ among school

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\(^8\) In the present study, a learners’ status as ‘beginning’ or ‘advanced’ refers to the number of semesters they have spent studying French at the university; their status was not determined by an independent measure of ability or knowledge. Thus, the participants are advanced by virtue of their enrollment in a seventh-semester undergraduate university language course.
children, advanced language learners vary with regard to the distance they must traverse to master the course curriculum. In other words, given the diverse background of learners, some students have much farther to go than others in their language development. Moreover, advanced language learners also have the ability to produce longer stretches of discourse than beginning learners and are more likely to have select problems than beginners, whose limited knowledge of the language leads to numerous challenges.

4.2.2 The course: Advanced Oral Communication

Participants were recruited from a seventh-semester undergraduate French course, Advanced Oral Communication. Twenty-one students were enrolled in the course. According to the instructor, the students had a wide range of language backgrounds. One student was highly proficient in French, having learned it as a second language while growing up in a francophone African country; her purpose in taking the class was to not lose contact with the language. Another student was a heritage speaker of French whose oral capabilities were native-like but who struggled to read and write the language. The other students in the class had learned the language primarily through formal schooling. Some of these students had already studied abroad for a semester or a full year while many of the students had not used the language outside of classroom settings. The vast majority of the students were seeking either a minor or a major in French, and all but one of them were undergraduates.

The instructor had an extensive background in literary studies and experience teaching composition, which she drew on to organize her syllabus. The course was organized according to “language functions” including, persuasion, description,
argumentation, informational, and creative or poetic function. In addition, the instructor required students to consistently and appropriately use both a formal and an informal register of French during class activities (directions as to which register to use were given prior to specific activities). Throughout the semester, students gave oral presentations, either individually or in groups, demonstrating the various language functions they studied. Students were also given opportunities to have small group discussions in class, during which they were asked to use the relevant functions and registers. Although formal grammar instruction was not part of the course, the instructor required a reference guide for native speakers of the language, which the students could consult as needed.

4.2.3 Recruiting participants

The instructor allowed the researcher to visit the class at the start of the semester in order to recruit participants. The researcher explained that his dissertation work involved tutoring students in a one-on-one format. He made it clear that student participation in the project was voluntary, that they could abandon the study whenever they wanted, and that their instructor would not be notified who was participating since the tutoring program was in no way connected to their course grade. The students were informed that they would not receive extra credit for participating and they would not be paid for their time. The researcher stated, however, that if the students agreed to participate they would likely learn a good deal about their strengths and weaknesses in French and would receive assistance to improve their speaking ability. Interested students were asked to place their name and email address on a sign-up sheet so that the researcher could contact them, via email, with additional details and to make arrangements for an initial meeting. Eighteen of the twenty-one students provided their
contact information, and each of these received an email from the researcher inviting them individually to take part in the tutoring program. Of these eighteen students, eight responded to these emails and arranged meetings with the researcher, but two students did not show up at the designated time and did not respond to subsequent messages. This left six students who met with the researcher and agreed to participate in the study.

Of these six participants, two informed the researcher that, although they wanted to participate in the program, they feared their class and work schedules would not permit them to attend sessions with any regularity. After discussion with the researcher, they agreed to take part in two sessions at the beginning of the semester and two at the end. This, in fact, worked well within the design of the study, which called for non-enrichment learners who would be assessed statically and dynamically prior to and following the enrichment program. The other four students agreed to participate in all assessment and tutoring sessions, and therefore formed the enrichment group. These students met with the researcher one to two times per week for approximately six weeks, for a total of eight tutoring sessions. In order to preserve their anonymity, all participants were given pseudonyms.

4.2.4 Participants

Amanda was a quiet third-year undergraduate French major. She had taken French in high school and began her university studies with a fourth-semester level course. Amanda planned to study in France as part of her major. She had not studied any other languages but explained that she “loved” French, although she was uncertain how she would use French after college. She was considering applying to law school or possibly pursuing a certification to become a high school French teacher. Amanda hoped
that her time in France would help her decide which path to take. She had not traveled outside the United States and so was quite anxious about the study abroad experience. She was excited about the opportunity for one-on-one tutoring because “I know every bit’s going to help when I’m over there.” When asked to evaluate her current abilities in French, she explained that she lacked confidence in her speaking abilities because she required a good deal of time to plan her speech, and she found that she often was not able to do this in conversation and so made many “careless” mistakes.

Donna was an associate professor of Communications at the university. She had studied French in high school and had participated in an exchange program, spending her junior year at a lycée in France and living with a French host family. During her years as an undergraduate Donna continued her study of the language, taking upper-level literature courses; she had even sat in on a graduate-level French literature course. However, at the time this research was conducted, Donna had not taken a French class in more than twenty years. As a professor, she had organized a number of trips to France for university students and had gone on some of them as a faculty advisor, meeting with Communications faculty and students at French universities. In her words, though, these trips had not required her to use very much French: “Generally I just needed it [French] for things like hello, goodbye, nice to meet you (…) how much is a room?” In addition to taking trips to France, Donna had also visited Quebec and the French-speaking part of Switzerland. Donna’s motivation to start studying French again was that she had applied for a Fulbright to do research in France and Belgium and felt that improving her language abilities would be very important if she received the award. In her self-evaluation, Donna explained that she felt quite comfortable using the language but that she had forgotten so
many of the rules ("knowing when to say which thing") that her spoken and written French were full of errors.

Elaine was an undergraduate French major in her final semester of study. Besides the advanced grammar course, she was also enrolled an advanced French literature course, as required for her major. She did not have study abroad experience and her only visit to a French-speaking country was when she went to France for a week with her high school French class. Nevertheless, she felt that her French was better than that of most of her classmates. When asked about areas of her French that needed improvement she did not immediately have an answer, and only later suggested vocabulary ("you can always learn more vocabulary words"). She had recently decided that after graduating she would apply to a M.Ed program and become certified to teach French at the high school level. She decided to limit her participation in the study to the pre- and post-assessments due to her heavy course load and the fact that she was “burned-out on school.”

Jess was a fourth-year undergraduate student majoring in art. Her father had made a career in the military, and so Jess had been raised on or near military bases in the United States. She had also spent four years living on a military base in Japan. Jess regretted that during this time she had not done more traveling in Japan; most of her trips off the base were to a nearby town and were in the company of her family. She learned a few phrases in Japanese but generally found the language too difficult. French, on the other hand, she had studied throughout high school, and the base where she was living had a particularly good French teacher. Jess greatly enjoyed working with this teacher and dreamed of visiting France. When she began her university studies, an interview with a French department faculty member determined that her control of the language
was adequate for her to immediately enroll in fifth-semester level courses. Jess, however, felt that her French had suffered somewhat while studying at the university. She elaborated that she had expanded her vocabulary by taking literature and history courses but that she found it more difficult to remember “all the rules and all the exceptions” when speaking and writing the language. Jess started college as a French major but switched to art during her first year. She was continuing to study French in order to earn a minor in the language but also because her goal after graduation was to work in the South of France as an artist.

Nancy was in her final year of an undergraduate civil engineering program. Her parents had emigrated to the U.S. from Colombia, and although Nancy was born in the U.S. her family spoke Spanish exclusively at home. She had taken French in high school and continued to study it at the university because she enjoyed it and because she believed that the ability to speak three languages would help her to obtain employment at an international engineering firm after graduation. She had never been to France and had only taken six French courses at the university since she was not seeking a degree in the language but was using the courses as elective credits. Nevertheless, she felt quite comfortable using spoken and written French. She admitted that she relied heavily on Spanish when speaking French, explaining that this meant she usually did not struggle with grammar but sometimes had problems with vocabulary and pronunciation. The demands of her engineering courses prevented her from participating in the entire tutoring program.

Sara was a fourth-year undergraduate student majoring in International Politics. Born and raised in India, she had begun her study of French in high school and
supplemented those basic language classes with courses at the local *Alliance Française*. When she came to the United States for college, she was shocked to find that she had been placed in a second-semester French course. Not wanting to be too ambitious during her first semester at a university in another country, Sara decided to remain in the course but later regretted that decision. She felt that what she had done at the *Alliance Française* in India was well beyond the level of the university course, which for her was “a complete waste of time.” Because she enjoyed French, she continued to enroll in French courses each semester. Unfortunately, Sara’s frustration with the university’s language program continued. She stated that in comparison to the courses she had taken in India, French instruction at the university was very poorly sequenced, with grammar lessons not following a logical progression but instead organized according to “made-up stories and situations.” She found that there was a lack of coherence from course to course and even within courses. For example, she complained that many of her instructors “did not even care about grammar except when it came time for tests.” In fact, Sara’s disappointment with the French program was so great that, while she had initially declared a minor in French, she dropped this upon completing the fourth-semester level courses. She also said that she no longer saw French fitting in with the rest of her career plans. Initially, she had thought being able to speak French would be good for her major but later she concluded that, “Everywhere you go everyone speaks English anyway.” Nevertheless, after a semester without any French classes, Sara decided to register for the advanced oral communication course because she missed contact with the language.
Interestingly, Sara dropped the course approximately a month after the start of the semester. While insisting that she was interested in improving her French, she stated that “studying a language isn’t something you have to do in college. You can do that anytime like at a place like the Alliance.” Nevertheless, she agreed to continue her participation in this project because she thought one-on-one interactions would help her abilities in French. In addition to French, Sara also spoke three Indian languages. She had traveled around the world quite extensively with her family and had visited France on several vacations.

4.3 The Enrichment Program

Following the initial SA and DA sessions, an enrichment program was implemented with four of the six participants. This program was inspired by Feuerstein’s Instrumental Enrichment, and had the express purpose of remediating those areas in the learner’s performance that had been found, through the initial assessments, to be in need of attention. It is important to note the contributions of DA to the design of the enrichment program. First, cooperative dialoguing between the mediator and the learners during DA provided insights into the underlying causes of poor performance as well as the extent of the problems. Moreover, mediator-learner interactions also illuminated how close learners were to independently controlling tense and aspect and the kinds of mediation they required to improve their control. Subsequent chapters discuss in detail the information obtained through DA, but for now what must be kept in mind is that, although SA identified problems in learners’ performances, SA has a difficult time identifying the full extent and precise source of problems, let alone revealing potential ways of helping learners overcome them.
The initial assessments made it clear that some participants had difficulty producing the correct forms and that they all struggled to appropriately use the present perfect and imperfect (i.e., the *passé composé* and the *imparfait*) to narrate the various events of the film. Each of the learners had studied the *passé composé* and the *imparfait* in their language classes. In some cases, learners were keenly aware of their often long struggle to use these forms, admitting that they had difficulty “remembering all the rules for when to use one or the other” (Nancy); other learners appeared confident in their knowledge of the “rules” for using both forms but were still not able to control them during their independent performance. During DA1, it was found that the learners could be helped to use tense and aspect more appropriately, but that they varied in the kinds of mediation they required. The goal of the enrichment program was to help the participants gain better control over the *passé composé* and the *imparfait* by helping them to develop a more coherent, concept-based understanding of aspect that differed from the traditional rules-based explanations found in most texts. The interactions between the mediator and the learners during enrichment were a continuation of the work begun during DA1 because in both assessment and enrichment the mediation provided to learners was sensitive to their ZPD and thus was intended to promote development.

4.3.1 Distinguishing the *passé composé* and the *imparfait*

The students’ struggle with aspect is not surprising when the relevant research literature is considered. For example, Swain (1985) similarly found that even advanced French immersion students continue to struggle with the *passé composé* and *imparfait* during narrative tasks. Harley (1986: 73) conducted a study in a Canadian French immersion program and found that students who had received between 1000 and 3500
hours of instruction still experienced great difficulty encoding verbal aspect. Thogmartin (1984) describes the distinction between the *passé composé* and the *imparfait* as “one of the most frustrating [topics] for the beginning student of French to master or for the pedagogue or grammarian to describe in a way that will be helpful to the student in conceptualizing the problem and correcting his own errors” (p. 344). The present study suggests that the problems posed by the *passé composé* and the *imparfait* are not limited to beginning learners of French but can be a persistent problem among advanced (seventh semester) university students of the language.

In her review of techniques used for teaching the *passé composé* and the *imparfait* in high school and university French textbooks, Dansereau (1987) observes that explanations of these forms are not explicitly linked to the linguistic concepts of perfective and imperfective aspect (p. 33). Instead, she notes that aspect is “always mixed in with and lost among other explanations” which tend to be “vague, incomplete, contradictory, and generally poor” (ibid.). Blythe (1997: 54) points out that most French and Spanish textbooks confuse related but separate grammatical categories, mistakenly referring to the perfect and imperfect as temporal (i.e., tense) differences rather than aspectual. Citing Garrett (1986: 140), he charges that textbook presentations of aspect are “seriously misleading as explanations, sometimes actually wrong” (ibid.). He concludes that, although aspect is a key grammatical concept, it is poorly understood by most learners of L2 French and Spanish because instructors themselves do not have a full conceptual grasp of it (p. 51).

If one follows Dansereau’s (1987) argument, the problem can be traced to failure of textbooks to present grammatical information in a coherent, conceptually organized,
format. She suggests that aspect is not *explained* as much as it is *described* in relation to specific sentence-level examples (pp. 33-34). This allows for the identification of key words that students come to associate with the functions of these forms. In her view, “to fill a student’s head with notions of ‘completion,’ ‘duration,’ ‘number of times,’ ‘state,’ ‘action,’ and so forth is to doom him to confusion, frustration, and incorrect usage” (p. 36). Instead of approaching the distinction between the *passé composé* and the *imparfait* as a series of descriptive rules-of-thumb to be memorized, Dansereau suggests focusing instruction on the linguistic concept of aspect. She reports that her own university-level students have avoided much of the confusion French L2 learners typically face because she introduces aspect conceptually from the outset of her pedagogical program.

4.3.2 A conceptual approach to verbal aspect

Negueruela (2003) included verbal aspect among the topics he addressed in his concept-based approach to language instruction. Drawing on Bolinger’s (1991) formal accounts of aspect and Bull’s (1965) pedagogical recommendations for Spanish L2 teachers, Negueruela developed explanations and supporting visual representations to help his students arrive at a conceptual understanding of the *preterito* and the *imperfecto* in Spanish. As French is also a Romance language, it uses aspect in ways that are very close to Spanish. The enrichment program thus drew on Negueruela’s work and endeavored to help L2 learners of French develop a conceptual understanding of aspect in order that they might better control their use of the *passé composé* and the *imparfait* in their narratives. Supporting instructional materials that explain aspect from a conceptual, linguistic perspective were inspired by Negueruela’s work and adapted for French. Participants were provided with written descriptions of aspect, accompanied by
examples, to illustrate how the *imparfait* and the *passé composé* can be used to create specific effects by emphasizing a particular view of an action, event, or state of being.

Because the students were constructing past tense narratives, it was important that they have an understanding of how to sequence tenses to describe events in the story. In this case, the work of Bull (1965) was once again drawn upon and adapted for French. Learners were presented with a diagram displaying the verb tenses appropriate for different points in the narrative relative to a chosen reference point. This became particularly important as learners attempted to report speech indirectly and needed to make adjustments to verb tenses in order to correctly portray reported speech (e.g., he told his friend that the car had broken down and that he would contact a lawyer). The students were also given an inventory of various verbs they could use to report speech in French (e.g., to say, to suggest, to respond, to demand, etc.). In addition, two of the participants (Donna and Jess) were also supplied with sheets reviewing the formation of the *passé composé* because they had struggled to correctly produce these forms during the initial assessments. These artifacts, or what Kozulin (1998) refers to as symbolic mediators, were presented to the learners during the first of the enrichment sessions. During subsequent sessions, they were available for the learners to consult as they needed while completing the narration tasks. All materials are included as appendices.

Following Negueruela (2003), the design of the enrichment program was inspired by Gal’perin’s pedagogical recommendations. A central tenet of Gal’perin’s application of Vygotsky’s ideas to education is that most forms of instruction fail to lead to a deep understanding of the subject matter but that this can be remedied if the curriculum is arranged in a systematic and theoretical manner. This, according to Gal’perin, would
result in a more powerful form of learning because students would have a well-developed, conceptual understanding of the subject matter structured according to the formal principles that define that domain. Importantly, this approach insists that concepts should be presented to learners in their full form from the outset. In other words, the concepts themselves are not reduced or simplified, as this results in distortion. Instead, the pedagogical tasks in which the students engage vary depending upon their level of ability. Similarly, the expectations of what learners can do, as well as the quality and quantity of mediation they require, will also change over time.

Gindis (2003) has also written on the central role of concepts in Vygotskian pedagogies, and Kozulin (2003) suggests that concept-based instruction is a logical extension of Feuerstein’s IE. According to Kozulin (1998), IE is a supplementary cognitive intervention program because it targets the development of basic psychological functions and is not a part of any school curriculum (p. 88). He goes on to contrast IE with cognitive infusion programs, which seek to promote higher psychological functions through the study of specific content domains such as math and history. He argues that in a pedagogy based on Vygotskian principles,

There is no opposition between cognitive mechanisms and content knowledge for the simple reason that content appears here in a conceptual form that defines not only the content but also the type of reasoning involved. Because sociocultural theory emphasizes the historical character of human cognition, the conceptual structure of disciplinary knowledge appears here as a veritable form of human thinking (Kozulin 2003: 33).

Domains of knowledge, then, all have their own underlying logic, their own unique concepts that serve as “symbolic devices” for representing their object of study, for highlighting specific aspects of that object, and for organizing relationships among the various categories and principles that form the domain (Kozulin 1998: 161).
The enrichment program developed for the present study is an example of a cognitive infusion program. The program differed from traditional pedagogical grammars in that it did not explain the *passé composé* and the *imparfait* according to descriptive rules that learners have to memorize. From a Vygotskyan perspective, such an approach is less conducive to helping students arrive at a conceptual understanding of verbal aspect than one that explicitly teaches the concept in its full form from the outset. Through engaging students at the conceptual level and correcting any misunderstandings of the *passé composé* and the *imparfait*, the program sought to improve learners’ control over these features.

4.3.3 Remediation through concretization

An additional point about the program that is worth noting concerns the use of writing. While the assessments themselves required learners to construct narratives orally, the narratives composed by the learners during enrichment were in written form. That is, the enrichment program sought to improve spontaneous oral performance through writing. The advantage of producing the text in a more concrete, material form was that the mediator and learner could then collaboratively examine the narrative as a whole, noting particular linguistic structures, evaluating them, and revising and extending the narrative as necessary. This notion of materialization of the object of study figures prominently into Gal’perin’s (1989) pedagogical proposals. In addition, Aljaafreh and Lantolf’s (1994) work with tutor-tutee collaborations also demonstrates the advantages of studying language in its written form, although these researchers focused exclusively on written language and did not investigate its impact on oral performance. In fact,
Vygotsky himself argued that improving literacy resulted in improved oral ability rather than the reverse (see Vygotsky 1978).

4.3.4 Human and symbolic mediators

A final point regarding the enrichment program has to do with the mediation that was used. The symbolic mediators – timelines, graphs, examples – used in enrichment did not replace the interaction between the mediator and the learner but rather supplemented it. That is, following Kozulin’s (2003) observation that SCT researchers commonly rely on human mediators while MLE researchers make heavy use of symbolic mediators, the present study incorporated both as integral components of the enrichment program. Typically, enrichment sessions involved the learners watching a brief video clip (as in the assessment sessions) and then composing a written narrative recounting the part of the film they just watched. During this composition phase, learners were free to consult the documents as needed, and frequently made extensive use of them. Then, during the revision phase, they reviewed their written narrative with the mediator. The learner read the text aloud as she and the mediator went through it sentence by sentence, the mediator interrupting to ask questions, give suggestions, and provide feedback. The learners were also encouraged at this time to ask questions. The supporting documents were frequently referred to during these interactions as well. Revisions were made by the learner directly to the text, and these written narratives were collected by the mediator at the end of each session. The mediator then reviewed the documents, noting errors and revisions, in order to prepare himself for the kinds of problems that might arise and the kinds of support he might need to give during the next session.
4.3.5 Enrichment and non-enrichment learners

As stated earlier, two of the six learners, Elaine and Nancy, did not take part in the enrichment program but did participate in the SAs and DAs that preceded and followed the program. They underwent the SAs and DAs at the beginning and end of the enrichment program (approximately six weeks apart) while the other students, Amanda, Donna, Jess, and Sara, participated in all sessions, including the follow-up transfer assessments. In some respects, this arrangement parallels the classical control group-treatment group design in experimental research. That is, analysis of learners’ performance on the post-enrichment assessments was framed within a broader discussion of their interactions with the mediator. In the case of the non-enrichment learners, this meant connecting their assessment performance at time 2 with their initial DA, while with the enrichment learners it was necessary to also consider their collaborations with the mediator during enrichment. Changes in learner performance, including their control over linguistic forms, the kinds of mediation they required and their responsiveness to the mediator were all considered signs of development. In addition, learners’ verbalizations about their choice of linguistic forms during the assessments helped to indicate the extent to which their reasoning was rooted in the conceptual explanations offered by the mediator or the rule-based instruction they had received in their language courses.

Differences in the degree to which enrichment and non-enrichment learners changed their performance were an important part of arguments regarding the effectiveness of the enrichment program to promote development.

It was reasoned that Elaine and Nancy would likely not show the same kinds of improvement over time as the enrichment learners. From a Vygotskian perspective,
changes can occur within a very short period of time, an idea captured by the notion of *microgenesis*. Therefore, it should not be assumed that the non-enrichment learners would show no change in their performance. The fact that they did take part in the initial DA session and received mediation (including explanations of linguistic forms and their impact on meaning) suggests that they may have internalized some of their interaction with the mediator. However, following Feuerstein’s description of the IE program (Feuerstein et al., 1980) it was hypothesized that the enrichment learners would show greater development over time because they received more instruction that was sensitive to their ZPD. If all learners showed the same kinds of changes, it would be concluded that either a) the initial DA session was sufficient to bring about development and the enrichment program was superfluous or b) the learners’ improvements were not the result of their work with the mediator but could be attributed to some other source, such as their French course, although this latter possibility, as already stated, was controlled for by examining learners’ verbalizations.

4.4 The Assessments

The SA and DA tasks consisted of narratives based on short film clips taken from feature-length movies. This choice was motivated by the wide range of linguistic structures required by such a task, including selective use of verb tenses (past tenses but also potentially the present and future tenses), aspect (perfective and imperfective), moods (indicative, conditional, and subjunctive), and reporting speech (directly and indirectly), among others. The range of features allowed the participants to showcase a variety of abilities, any one of which could have required remediation. As already stated,
the *passé composé* and the *imparfait* proved problematic for all participants, and therefore enrichment focused primarily on a conceptual study of verbal aspect.

### 4.4.1 Tasks and materials

The directions the learners received for each of the assessments included the following:

- your narrative should provide as much detail as possible, therefore you may take notes while watching the clip so that you can remember everything that you would like to include [all notes were collected at the end of each session]
- your narrative should describe events as they occurred in the past, and so you should pay careful attention to the appropriate use of verb tenses
- your narrative should be composed in French, and to the extent possible English should not be used

During the sessions in which mediation was provided (i.e., the DAs and the transfer assessments), the following additional directions were also given:

- I [the mediator] will interrupt at various points to ask questions, offer suggestions, and provide help when necessary; sometimes I will interrupt to provide a correction, to question something that was said, or to make general comments;
- these “interruptions” will be done in English in order to avoid any possible misunderstandings; if you do not understand something that I say or if you would like further clarification or assistance, just let me know in either French or English
- in addition to when I interrupt, I also encourage you to ask me for help if you need it; you can do this in either French or English

The video clips that were used as a prompt for the narratives came from the film *Nine Months*, a comedy from the mid-Nineteen-Nineties starring Hugh Grant, Julianne Moore,
and Robin Williams that recounts the misadventures of a couple who unexpectedly find they are going to have a baby. This film was selected because it was hoped that the film’s well-known comedians and light-hearted subject matter would help to ease some of the tension participants might feel about undergoing an assessment. In addition, the film offered several clips that combined sequences of action and dialogue that would provide ample material for the learners’ narratives.

The first clip, which served as the prompt for the SA, follows the young couple as their romantic picnic on the beach is interrupted by a chance encounter with another couple and their obnoxious young children. The DA was based on a clip in which the main characters first realize they are pregnant. Both clips were approximately five minutes in length.

4.4.2 Timing and quality of mediation

The DA procedure used in this study followed the cake format described in chapter 1. The strength of the cake format lies in the timeliness of the mediation. For example, in Antón (2003) the mediator waited until the learners had finished their narration before offering assistance – in the form of reminders – and the opportunity to try again. The multitude of other errors, breakdowns, and struggles for control that may have occurred during the narration were already past, and with them, perhaps, the opportunity to intervene in the process of development. By responding to problems as they occur, the mediator can help the learners to perform the task at a higher level than they are capable of on their own. For this reason, the mediator in the present study offered various forms of assistance throughout the assessment, and the learner was free to request help as needed. Thus, the assessments were evaluated according to the kinds and
numbers of errors that characterized the assessments before and after the enrichment program, as well as the specific moves made by the mediator and the learners during their collaborations. The mediation itself was based on principles of interactionist DA. That is, the mediation emerged out of the cooperative dialoguing between the mediator and the learners; there were no a priori categories of mediation or hierarchies of prompts.

4.4.3 Transfer assessments

Transfer tasks were developed to assess the extent to which learners had internalization and extended the mediation provided. Together with the results of the DAs, this information forms a profile for each learner that tracks the gains made. In the present study two transfer tasks, TR1 and TR2, were used to round out the developmental diagnostic of each participant at the end of the enrichment program. The SAs and DAs were centered on learners’ narratives, which they created after watching brief video clips from a popular comedy. TR1 paralleled the SAs and DAs in that it, too, involved a clip from a film. However, it differed in two very important ways. First, the video clip for TR1 was taken from the film *The Pianist*, which is a very different genre from *Nine Months*. It is a grim depiction of the true story of one man’s survival during the Holocaust. As such, the emotional response and the attention this film demands are very different from the comedy used in the DAs. Second, the specific clip included only one line of dialogue. The scene involves a series of violent images and a sequence of events portraying a Jewish uprising against the German army and the latter’s retaliation.

TR2 differed from the other assessments in an even more important way: the medium of the prompt itself. Instead of a video clip, an excerpt from Voltaire’s *Candide* was used. The prompt was in the same language as the learners’ renarration (i.e.,
French). The excerpt was also written in the past tense, although the literary *passé simple* was used by the author rather than the more common *passé composé*. Thus, while the participants were clearly oriented to renarrate in the past by the text itself, unlike in the film clips, they still had to make decisions on how to mark aspect.

A final point regarding the transfer assessments concerns the enrichment and non-enrichment learners. The transfer tasks were designed to determine how well the enrichment learners could extend, or ‘transfer,’ the abilities they had developed through their interactions with the mediator to novel problems. Nancy and Elaine were not invited to participate in the transfer assessments. In part, this was because their availability was limited, but it was also due to an unfortunate oversight on the part of the researcher. Reasoning that the non-enrichment learners would not show substantial change over time, it did not seem likely that they would have new abilities to ‘transfer.’ Regrettably, this is an oversight can only be addressed in future research.

In summary, there were a total of six assessment sessions for the enrichment learners and four for the non-enrichment learners. All participants underwent a static and a DA at the beginning and at the end of the enrichment program. In addition, the enrichment learners also completed two transfer assessments. Each assessment, along with the type of mediation provided and the specifics of the task, is summarized in table 4.1.
<table>
<thead>
<tr>
<th>Assessment</th>
<th>Task Description</th>
<th>Materials</th>
<th>Mediation Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test (SA1)</td>
<td>Construction of a past-tense narrative in French recounting events from the film excerpt</td>
<td>Scenes 2 &amp; 3 from the film <em>Nine Months</em> (in English)</td>
<td>none</td>
</tr>
<tr>
<td>Pre-test (DA1)</td>
<td>Construction of a past-tense narrative in French recounting events from the film excerpt</td>
<td>Scenes 5 &amp; 6 from the film <em>Nine Months</em> (in English)</td>
<td>flexible interaction with assessor: hints, prompts, questions, suggestions, explanations <em>as needed</em></td>
</tr>
<tr>
<td>Post-test (SA2)</td>
<td>Construction of a past-tense narrative in French recounting events from the film excerpt</td>
<td>Scenes 2 &amp; 3 from the film <em>Nine Months</em> (in English)</td>
<td>none</td>
</tr>
<tr>
<td>Post-test (DA2)</td>
<td>Construction of a past-tense narrative in French recounting events from the film excerpt</td>
<td>Scenes 5 &amp; 6 from the film <em>Nine Months</em> (in English)</td>
<td>flexible interaction with assessor</td>
</tr>
<tr>
<td>Transfer Task 1 (Dynamic)</td>
<td>Construction of a past-tense narrative in French recounting events from the film excerpt</td>
<td>Scene 13 from the film <em>The Pianist</em> (film in English and German but excerpt contained virtually no speaking)</td>
<td>flexible interaction with assessor</td>
</tr>
<tr>
<td>Transfer Task 2 (Dynamic)</td>
<td>Construction of a past-tense narrative in French recounting events from the book excerpt</td>
<td>Voltaire’s <em>Candide</em> Chapter 1 (in French); French-English dictionary</td>
<td>flexible interaction with assessor</td>
</tr>
</tbody>
</table>

Table 4.1 Overview of Assessments
4.5 Analysis

4.5.1 Coding and analyzing the data

In the present study, a clinical analytic approach is used to interpret learner performance and the interactions between the learners and the mediator. This does not mean that quantitative data are not be used, but rather that these data are not analyzed from a psychometric perspective. Evaluations were made of the learners’ performances in the following way. Each assessment session was video recorded, transcribed, and analyzed. Through careful reading of the transcripts certain recurring patterns of interaction between the mediator and the learners emerged. In particular, various types of mediation were noted, as were moves on the part of the learners. The transcripts were formatted for input into a qualitative data analysis software known as Nvivo. Using Nvivo, the data were coded in order to determine the following: the total number of verbs used; the number of instances of specific verb tenses (the present, the future, and the past tenses) and aspect (present perfect and imperfect); whether these verbs were correctly formed and appropriately used; the instances of reported speech (both direct and indirect reporting) and whether this was carried out correctly; and cases of learners self-correcting and whether they were successful. The data were also coded for the different kinds of moves made by the mediator and the learners during the dynamic and transfer sessions. After coding, reports were generated to tabulate the number of each type of code that was used for each session with each individual. In this way, the performances were analyzed on three levels: completion of the task itself, including errors and struggles; the amount and quality of mediation used to help the learners complete the task; and the learners’ moves during their interactions with the mediator.
With the sessions framed in this way, comparisons were carried out across all six assessments for the enrichment learners and for the four sessions with the non-enrichment learners. Specifically, each of the enrichment learners received a three-way comparison. The learners’ performances during SA1 and SA2 were examined for changes in their independent functioning, or Zone of Actual Development. DA1 and DA2 were compared to determine if there were changes in the amounts and kinds of mediation required at these two points in time as well as how learners responded to the mediator’s moves. This indicated their Zone of Proximal Development at times 1 and 2. Finally, their performance in DA2 was compared with TR1 and TR2 in order to assess how well the learners were able to maintain their level of functioning as changes were introduced to the assessment context. Participants in the non-enrichment group were analyzed in the same way but through a two-way comparison since they did not take part in the transfer assessments.

4.5.2 Interactions and verbalizations

In addition to coding the data in this way, the transcripts and video recordings of the enrichment lessons were examined for particularly interesting interactions that demonstrated signs of struggle and development. Often this was found in the form of a particular structure with which learners initially struggled but which became less problematic over time. Other examples include cases where participants worked through a problem partially but requested additional help in order to overcome it, or where they successfully resolved it on their own with little or no prompting from the mediator.

Aside from improved control over the linguistic structures, it was assumed that, based on Negueruela’s (2003) findings, development of conceptual understanding of the
structures would be made manifest in the way the participants talked about the structures. Therefore, a second level of analysis in this study focused on the participants’ explanations for their linguistic choices. Throughout the assessments and the enrichment program learners were routinely asked to verbalize why they had chosen the passé composé over the imparfait or vice-versa, and how the meaning expressed would be different if they had opted for the other form. These explanations, along with their performance during the assessments, were transcribed for analysis. Attention was given to the kinds of statements the students used to explain their reasoning. It was expected that, as learners developed a more conceptual understanding of aspect, a shift would occur in their explanations of their choices between the passé composé and the imparfait. In particular, it was anticipated that over time learners’ explanations would reflect less a concern to ‘get it right’ by applying a descriptive rule and would come instead to represent an understanding of how aspectual choices can be used to create relationships among events in a narrative.

4.5.3 Notes about abbreviations and transcription conventions

The data analysis in the following chapters includes excerpts from the transcriptions of the assessments. Whenever an excerpt is presented, the lines of text are numbered in order to facilitate reference to specific parts of the interactions. Whenever French was used in these sessions, an English translation is provided. The transcription conventions used were adapted from Johnson (1995). They were intended to capture particular aspects of the discourse. Clearly, consideration of other discursive features may have brought to light additional interesting findings. However, the purpose in analyzing the transcriptions of the assessment sessions was to examine the interplay
between mediator and learner, with a primary emphasis on understanding the emergent mediation and performance. The minimal coding conventions that were employed directly relate to this goal. In addition, a variety of abbreviations are used for convenience. All transcription conventions and abbreviations are listed in the appendix.

4.6 Conclusion

One of the unique contributions of the present study is that it places interaction in the ZPD at the center of L2 instruction and assessment. The theoretical implication of Vygtosky’s conceptualization of the ZPD is the unification of instruction and assessment as a single activity in which a learner’s abilities are simultaneously evaluated and promoted. This monistic view of two activities that have been traditionally dualistically opposed in Western pedagogical approaches requires a rethinking of many accepted methodologies. Chief among these is the issue of standardization of assessment procedures. The DA approach that was developed for this study follows Feuerstein’s preference for flexible interaction between the mediator and the learner as the two cooperatively perform the assessment tasks. This clinical approach to DA calls for a qualitative description of the assessment sessions rather than a psychometric one. Thus, learners’ performances are not assigned a score or ranking but are instead considered in terms of the appropriateness of the language they produced while completing the tasks as well as the kinds of mediation they required and how they responded to this mediation. Similarly, the mediation that was used was not determined a priori and then applied to a given assessment but, rather, was dependent on the specific context of mediator-learner interactions.
The results of the initial assessments were used to set up an enrichment program that continued the ZPD interactions begun during DA. Specifically, enrichment was intended to provide ZPD-sensitive instruction that would help learners gain greater control over the *passé composé* and the *imparfait* through developing a conceptual understanding of verbal aspect. It should be kept in mind that the participants had previously studied the *passé composé* and the *imparfait*, but they did not have a full conceptual understanding of these linguistic features and therefore could not appropriately use them. As will be demonstrated in the following chapters, their understanding of the *passé composé* and the *imparfait* tended to be based on ‘rules of thumb,’ decontextualized examples, and their own impressions and intuitions. In this sense, the program was remedial in its attempt to build upon the learners’ incidental grasp of certain language concepts to form an understanding of those concepts that is more theoretical. This approach to enrichment was based on Vygotsky’s writings on the importance of concepts in education and on Negueruela’s (2003) application of Gal’perin’s pedagogical recommendations to L2 instruction.

Changes in learners’ abilities over time were considered through comparisons of their independent performances as well as their interactions with the mediator during various assessments preceding and following the enrichment program. Importantly, their performance on tasks that differed from the original assessment context was also examined for signs of transfer of their new abilities. The results of these analyses are reported in the following chapters.
CHAPTER 5 – DATA ANALYSIS AND DISCUSSION:
TYPOLOGIES OF MEDIATION AND LEARNER RECIPROCITY

5.1 Introduction

Before launching into the analysis of the assessments, it is necessary to develop a lens for systematically studying and describing the mediator-learner interactions, and this forms the topic of the present chapter. Although Van Der Aalsvoort and Lidz (2002) have argued that more attention needs to be given to the interplay between mediational moves and the learners’ reciprocity, to the best of my knowledge this kind of double-sided analysis has not been undertaken in research on DA, and little has been done systematically in studies of the ZPD. To that end, a grounded analysis of every session with each participant was conducted, and from that emerged typologies of both the kinds of mediation that were used as well as the learners’ moves as they interacted with the mediator to complete the assessment tasks.

The analysis in the present chapter is concerned with describing the kinds of moves made by the mediator and the learners during the sessions. In addition, short illustrative excerpts from the assessments accompany each description. It is argued that the mediation typology is organized according to the level of explicitness of each move, and the learner reciprocity typology is based on the extent to which the learners took responsibility for their performance. The mediation and reciprocity typologies are not only useful for understanding the results of the dynamic assessments in comparison to the static assessments but are also essential for uncovering changes in learners’ performances over time as well as their ability to transcend a given task and to generalize learning to

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9 Indeed, (Van Der Aalsvoort & Lidz 2002: 115-116) point out that although DA researchers working in Feuerstein’s MLE Approach recognize the importance of reciprocity, which is one of the MLE attributes (see chapter 2), their analyses of DA sessions typically focus on moves made by the mediator.
new contexts. These mediation and reciprocity categories, along with the coding system described in the previous chapter for identifying the correctness and appropriateness of verb tenses (as well as other relevant features), serve as the basis for the analysis of the assessments that is presented in the next chapter.

5.2 Mediation Typology

Unlike in interventionist approaches to DA (e.g., Brown’s *Graduated Prompt Approach*), where hierarchies of assistance are worked out in advance of the assessments, the mediation typology described below was not generated *a priori* and then applied during the DA sessions but is instead the result of close analysis of the mediator’s cooperative dialogues with each of the learners in every session. In this way, the typology was developed in a manner parallel to the Regulatory Scale reported in Aljaafreh and Lantolf (1994) and discussed in chapter 3. Like the work of Aljaafreh and Lantolf, the inventory presented here is not meant to be exhaustive but rather representative of the major kinds of mediation offered in response to learners’ difficulties. The inventory is also not meant to be prescriptive; that is, these mediational moves characterized the mediator-learner interactions in the present study but should not be viewed as ‘rules’ or ‘norms’ for ZPD interactions that can be adopted wholesale and deployed by other mediators working with other learners in other contexts. Indeed, this would be antithetical to the interactionist approach to DA which argues on both theoretical (Vygotsky 1998, Luria 1961) and empirical (Feuerstein, Rand & Rynders 1988) grounds that learner development can best be promoted through *flexible* mediation that emerges from the ongoing interplay of move and response as the learner, through cooperative dialoguing with the mediator, engages in learning/assessment activities.
Indeed, even critics of interactionist DA, such as Büchel and Scharnhorst (1993: 100-101) have conceded that this form of mediation is more effective in bringing about learning than standardized mediation. Had the mediator approached the interactions with a predetermined set of prompts or hints his ability to respond flexibly and appropriately to problems would have been constrained in unacceptable ways. Adherence to a clinical methodology circumvented this problem but also meant that categories of mediation had to be drawn out from the interactions through a grounded analysis of each of the sessions. Of course, as with Aljaafreh and Lantolf’s Regulatory Scale, a general principle is discernible for organizing the kinds of mediation used, namely movement from the abstract/symbolic to the concrete. That is, the mediation typology, summarized in figure 5.1, begins with relatively implicit forms of mediation and culminates with very explicit intervention. This allows for an analysis of learners’ interaction that considers both the quality and frequency of mediation. The present chapter is concerned primarily with the former while the following chapter addresses the latter.
An important point regarding this inventory of mediational moves is that, although it is not meant to be prescriptive, the general principle of moving from implicit to explicit mediation is useful in several respects. As noted in chapter 4, a major shortcoming of much DA research is the lack of description of precisely what occurs during the assessments. This mediation typology is a step toward redressing that problem, since it presents a systematic and principled way of characterizing mediator-learner interactions in each of the sessions along with the changes that occurred over time. In addition, it provides a point of departure for future L2 DA work, both interactionist and interventionist, by illustrating some of the kinds of mediation that promote development. However, before considering each of these forms of mediation, more needs to be said about the principles behind the organization of the typology.
5.2.1 Mediation purpose, technique, and explicitness

Although the mediation typology in figure 5.1 posits a hierarchy of moves from implicit to explicit, this ranking is theoretically distinct from the kinds of menus generated by interventionist researchers such as Brown and her colleagues. This difference is a natural consequence of divergent interpretations of Vygotsky’s writings on the ZPD as discussed in chapter 2. In particular, interventionist approaches to DA use the same mediation with every learner and move through their scales of assistance in precisely the same order so as to preserve the standardization of the procedure, which enables use of inferential statistical analysis. The interactionist approach to DA used in this study, which follows Vygotsky’s discussions of working in the ZPD to promote development, parallels many of the arguments made by Aljaafreh and Lantolf (1994). For instance, the precise nature of the mediation was determined by the dialogue between the mediator and the learner during each session. This means that not every form of mediation was used in every session, and interventions did not necessarily begin with the first form of mediation listed (helping move the narration along); rather, they were selected according to what the mediator believed was most appropriate. Thus, the mediator intervened sometimes with a reminder of the directions and sometimes with a choice between two forms. In addition, when several prompts were given, the mediator did not always strictly adhere to the order presented in figure 5.1 but instead was free to ‘skip around’ based on the learner’s reciprocity, with the result that a prompt such as indicating the location of an error might be followed by a translation of the utterance.

Kozulin (2003) proposes another way of considering the quality of mediation offered during DA. In his view, various techniques can be used for the same purpose just
as the same technique can be used with more than one purpose in mind. Kozulin argues therefore that one must distinguish mediation *purpose* from mediation *technique*. That is, it is important to understand not simply what the mediator did but also how specific moves contributed to the performance (i.e., the function of mediational moves in the context of an interaction). With this in mind, the mediation typology in figure 5.1 can be further grouped according to five major functions: managing the interaction, reconsideration of performance, identification of a problem, overcoming the problem, and probing for understanding. In keeping with Kozulin’s line of reasoning, any one type of mediation could serve various functions, such as the provision of a translation used to help a learner identify a problem and possibly to overcome it. Nevertheless, certain trends in the provision of mediation are very clear. Specifically, helping to move the narration along and accepting a learner’s response refer primarily to managing the interactions. These are included as interventions because, as described below, they did have mediational qualities, but they were not focused on addressing specific problems. Requesting repetition, seeking verification, reminding the learner of the directions, and requesting a renarration were techniques for prompting learners to reflect on and to reattempt their narratives. Indicating the location of an error and specifying the nature of the error were techniques generally used for the purpose of helping learners identify a problem; once the problem was identified, they may or may not have required further assistance to overcome it. Providing metalinguistic clues, offering a translation, providing an example or illustration, and presenting learners with a choice were all techniques meant to encourage them to attempt to resolve the problem and to support them in doing so. Providing the correct response and providing an explanation were the
most explicit techniques and were used as a last resort when other forms of mediation had failed. Finally, asking a learner for an explanation was an important form of mediation for understanding a learner’s reasoning; it is included in the mediation typology but is primarily discussed within the analysis of the verbalization data considered in chapter 8.

Understanding the various types of mediation in terms of their purpose in the interaction becomes especially important when identifying changes in the interactions over time. For example, rather than simply focusing on whether type 8 mediation was used more frequently than type 9 mediation, analysis of the dynamic sessions also addresses questions such as the following: Were the mediator’s contributions primarily concentrating on stimulating learners to reconsider their performance or on helping them to overcome a problem? How often did the mediator have to provide a correct response and an explanation and how often was he simply accepting a learner’s response? This matter is returned to in the next chapter.

Of course, the question of mediation purpose is highly contextualized and can only be understood within a specific interaction. One issue that the analysis had to address is the potential lack of congruence between the mediator’s intended purpose and the learner’s interpretation of the move. This generally was not a problem with more explicit forms of mediation, where the learners’ moves indicated that the intent was clear and was shared by both participants. However, implicit forms of mediation could be ambiguous. For example, a request for repetition might have been made because the mediator had not understood an utterance but was interpreted by the learner as a correction; that is, a communicative move on the part of the mediator was understood by the learner as pedagogically focused. These were relatively rare occurrences, but it
should be noted that during the coding of the sessions, the dialogic nature of the interactions between the mediator and the learners made it clear when there was confusion. Specifically, careful attention was given to both learners’ reciprocity and their verbalizations in order to determine how they interpreted the mediator’s intention. The few cases where it appeared that a learner misunderstood the purpose behind the mediator’s intervention were not coded for inclusion in the analysis of the frequency of mediation types reported in the next chapter.

5.2.2 Helping move narration along

Turning now to the specific mediational moves represented in figure 5.1, the first and most implicit type of mediation involves the mediator’s comments that were focused on the narration itself and not on the learner’s use of French. This type of mediation was perhaps closest to what one would find in an everyday, non-pedagogical interaction, typically involving some form of back channeling or acknowledgement of an utterance in order to indicate that the mediator was indeed paying attention to and comprehending the narrative. In some instances this was accomplished with a single word (e.g., *d’accord, oui, okay*), and unlike the other forms of mediation, this was often done in French rather than English. The choice of language was not a conscious decision that was made prior to the sessions but is reflective of the more conversational quality of this kind of mediation. The importance of this kind of mediation for the learner’s performance should not be underestimated, as it encouraged learners to continue their narratives even when they were uncertain, and it gave them confidence that their narration was comprehensible. It also provided an alternative form of interaction that contrasted sharply with the more structure-focused interventions described below.
The following excerpt, taken from Donna’s initial DA session, is illustrative of the mediator helping to move the narration along:

1. D: n’aurait plus besoin de Sean et uh il serait démascu uh, il perdrait son masculinity and uh
   Would no longer need Sean and he would be demascu uh he would lose his masculinity and uh
2. M: il avait peur?
   He was afraid?
   He was afraid?

M’s question in line 3 is focused on the meaning Donna expressed in lines 1 and 2, and can be seen as an attempt to clarify that meaning by recasting it. Rather than suggesting an error or confusion has occurred, this form of mediation was instead less pedagogical and more like that of everyday communication. Nevertheless, this type of comment was often accompanied by confirmation and expansion on the part of the learner.

5.2.3 Accepting response

M also provided encouragement when he indicated the correctness or appropriateness of a particular language feature about which the learner was uncertain. Generally these interactions proceeded as follows:

4. N: okay that’s what I did (laughs). Aahh! I need to work on that (laughs).

5. Alright okay so I would say then il il n’a il n’a pas il n’a pas pu croire?
   He he he didn’t he couldn’t believe?
   He he he didn’t he couldn’t believe?

6. M: il n’a pas pu croire
   He couldn’t believe
   He couldn’t believe

In this excerpt taken from Nancy’s initial DA, the learner is uncertain about her construction involving the PP of the verb pouvoir (to be able) in a negative construction. In line 5, she questions M as to the acceptability of her response. M indicates its appropriateness by repeating her construction and then Nancy continues the narration
from that point. In other cases M accepted responses through a variety of acknowledgements and evaluations (e.g., oui, correct, good, bien).

While on the surface this form of mediation appears similar to the kind described in the previous section, the two can be distinguished by examining the context in which they occur and their function in the dialogue. The key difference between helping move the narration along and accepting a response is that the latter form of mediation focuses on the language itself. It was used after a learner had struggled to produce an utterance and was often elicited by the learner, who looked to the mediator for approval. Although this form of mediation did not intentionally entail helping the learner arrive at a response or correct a mistake, this is of course a possible outcome, depending upon the learner’s uptake of the move. In addition, acceptance of a response provided immediate feedback on performance, which was especially important as learners experimented with linguistic forms they had not yet mastered.

5.2.4 Request for repetition

This form of mediation typically involved M interrupting in English to ask learners to repeat what they had just said. The value of such a request was that it often was sufficient for learners to reconsider what they were trying to say and the linguistic forms they were using. In other words, this mediational move, while not pointing out the location of an error or the nature of a problem, prompted learners to clarify their meanings and to search for any potential mistakes that required their attention. In the excerpt below, taken from Donna’s first DA session, M’s request for repetition helps the learner resolve a verb tense dilemma:

7. D: oh yeah done Samuel Sean disait oh (...) (to self) Samuel dit (...) 
   So Samuel Sean was saying     Samuel says
8. M: I'm sorry I kind of missed it I didn't quite follow exactly what you were saying Samuel -

9. D: Samuel pensait oh j'ai un problème
   Samuel was thinking oh I have a problem

In line 7 Donna pauses after using the verb dire (to say) in the past and reflects for a moment on the possibility of using the present tense. M waits for her to continue, and when she does not he interrupts to request that she repeat her utterance. She does so in line 10, switching from the verb dire to penser (to think) and returning to her initial choice of tense.

5.2.5 Request for verification

Another technique that was also aimed at prompting learners to reconsider their performance was requesting verification of a particular lexical item or grammatical structure they had produced. Often this kind of request was made when learners had produced a form M did not immediately recognize, and the demand for verification was intended to clarify this ambiguity. Consider the following:

11. S: …Rebecca elle a sait* que Samuel ne veut pas le bébé
    Rebecca she knew that Samuel doesn’t want the baby
12. M: so Rebecca, I didn't I didn't quite follow what you said, she?

13. S: she knew, elle a sait* que Samuel-
    She knew that Samuel-
14. M: using the passé composé?

15. S: yeah she knew, uh elle savait
    She knew
16. M: she knew
17. S: elle savait it's better to use imparfait, elle savait que Samuel…
She knew she knew that Samuel

In line 11 Sara produces the erroneous form *elle a sait* (she knew) which appears to be the PP although Sara has failed to produce the correct past participle *su* and has instead substituted a present tense form. In this particular instance, the imperfect would be more appropriate, and so the mediator decides to intervene. However, before attempting to prompt Sara to rethink her choice of aspect, M asks her to repeat the form to be sure that he understood. Sara complies, repeating the mistake and providing an English translation. It is now clear to M that her use of the present form *sait* is a mistake in forming the past participle, but he requests verification of the tense in line 14. Interestingly, Sara responds in the affirmative, but in the same line she provides an English translation of the idea she is trying to express and uses the imperfect. She then goes back to French and uses the appropriate imperfect form *savait*. In this particular instance, M’s verification request was all that Sara required to recognize her error and correct it. In responding to M, her switch to English allowed her to refine the meaning she was constructing and in this way mediate herself as she reconsidered her choice of aspect.

5.2.6 Reminder of directions

This form of mediation was generally used after learners had begun to produce structures that were not in accord with the directions they had been given at the outset of the session. For example, there were many instances of learners forgetting their narrative was supposed to be in the past; they would begin their stories using the French past tenses and then slip into the present. Of course, switching to the historical present while narrating a story is a natural occurrence among expert users of the language but the
‘slips’ that are in question here are indeed inappropriate. Consider the following excerpt from Donna’s initial DA session:

18. D: …et ils sont tous les deux parlaient mais pas l'un l'autre ils parlent
And they both of them were speaking but not the one the other they speak
19. indépendent uh et la femme elle elle compte elle [dit
independent uh the woman she she counts she [says
20. M: remember this is in the past right?

21. D: uh yeah elle uh disait quatorze quinze seize quelque chose comme ça
She uh was saying fourteen fifteen sixteen something like that

Donna’s initial use of the verb parler (to speak) in line 18 is rendered correctly in the imperfect, but then she switches to the present in line 19. M’s reminder of the task’s directions prompts her to use the past again, at least in the short term. This type of mediation directed the learner to think about her use of verb tenses in general rather than targeting a specific verb in a specific part of the utterance. Donna’s reciprocating move suggests that controlling verbal tense is within her ZPD, and the fact that she needed only implicit mediation to improve indicates that she is close to being able to maintain this ability during independent performance.

5.2.7 Request for renarration

Similar to requests for repetition and verification, renarration requests were more explicit in that they identified an aspect of the learner’s performance that required attention. However, as with a reminder of the directions, this form of mediation was not focused on a specific instance of a linguistic structure but with the learner’s performance in general. Usually, requests for renarration involved giving learners a second chance to perform the task and also provided clues as to the aspects of their performance that were
problematic. A representative example of this form of mediation is given below taken from Amanda’s performance:

22. M: I’m just going to kind of interrupt you there for a minute and ask you to go
23. back and renarrate it again and this time keeping in mind for example the
24. difference between the two major past tenses in French the passé composé and
25. the imparfait
26. A: okay
27. M: okay

During Amanda’s initial DA session, she had difficulty sustaining the past tense on her own. Thus, while she did not have control over tense during independent performance, the question of whether this function lay within her ZPD could only be answered through cooperative dialoguing. After observing her slip into the present a few times, M interrupted, explicitly reminded her of the two past tenses in French, and then gave her the opportunity to reattempt the task. At times this form of mediation was sufficient for learners to overcome the problem, indicating that the function in question was what Vygotsky would describe as in the process of maturing but not yet fully matured. However, in some cases reminders had to be given again and more explicit forms of mediation had to be used, such as those discussed below.

5.2.8 Identifying the specific site of an error

One mediation technique used frequently was to direct the learners’ attention to the part of their utterance that contained an error. This provided valuable information to the mediator regarding the underlying source of the problem. For example, if learners
could identify and correct an error when an utterance was repeated aloud by the mediator, it indicated greater control over the feature than if they either failed to detect the problem or were able to recognize it but were unable to correct it. The following excerpt, from Nancy’s first DA session, illustrates this form of mediation. In lines 28 to 30 M repeats the part of Nancy’s narration where she had begun to use the present tense instead of the past.

28. M: just one thing I noticed you said with the uh in terms of that last part

29. ils sont allés dans la voiture et uh ils ont parlé or something like they went in the car and uh they spoke

30. that et Samuel a dit que and then there’s il ne peut pas croire and Samuel said that he cannot believe

31. N: oh okay

32. M: qu’il y a des gens right? do you see what I’m talking about? that there are people right?

33. N: uh huh the switch in tense

Importantly, it is Nancy who identifies the error in line 33. That is, in this example M did not need to become more explicit in order for the error to be apparent to the learner. Instead, he alerted her that there was a problem and then repeated the part of her utterance that contained the error but left it to the learner to figure out the nature of the problem. The goal of this kind of move was to be more explicit than simply saying that there was a problem but less explicit than overtly telling the learner what the problem was. Such a move was not always successful, and when the learner was not able to identify the source of the problem more explicit mediation was provided, as illustrated
below. As with all these forms of mediation, learners’ reciprocity reveals important information about their ZPD. In the case of identifying an error’s location, learners who are able to determine the nature of the error and perhaps even correct it are closer to independently controlling the forms than are learners who require more explicit mediation. That is, learners who benefit from this form of mediation have less of their ZPD to traverse (relative to the problem at hand).

5.2.9 Specifying the error

In Nancy’s second DA there is an example of M explicitly stating the kind of error she had produced. The goal of this form of mediation was to determine if she could correct a problem once it was pointed out to her. Here we have a lexical problem in which Nancy uses the verb *créer* (to create) while referring to a car accident:

34. N: okay so c'était une surprise pour Sam et après après ça il il a créé une
   It was a surprise for Sam and after after that he he created an
   accident avec un autre voiture uh camion?
   Accident with another car uh truck?

35. M: un camion
   A truck

36. N: camion et (…) okay so-
   Truck and

37. M: yeah instead of using the verb créer there's another verb you could use

38. N: what's that?

39. M: faire
   To do, make

40. N: faire (laughs) yeah il a fait un accident
   To do, make he had an accident

41. M: il a fait un accident
   He had an accident
In line 38 M tells Nancy that the problem is that she selected the wrong verb and that another verb more appropriately expresses her intended meaning. Unfortunately, in this example knowing the nature of the error did not help Nancy overcome it, and M decided to supply the necessary lexical item in line 40, which Nancy then incorporated into her narrative. Thus, while this interaction suggests that Nancy either had not learned or simply did not remember the expression *faire un accident*, she nevertheless knew the verb *faire* and was able to use it in the past tense.

5.2.10 Metalinguistic clues

This form of mediation was intended to help learners correct a mistake by providing recommendations that made use of more formal terminology such as auxiliary verb, pronominal verb, relative pronoun, etc. For example, informing learners that they needed to insert a relative pronoun into a construction was less explicit than simply supplying the correct answer. It also offered the advantage of determining an individual’s familiarity with metalinguistic terms and their usefulness in making revisions. Consider the following exchange in which M questions Donna’s use of the imperfect with the verb *se présenter* (to introduce oneself). Donna realizes that the *passé composé* is more appropriate but has some difficulty forming it:

43. D: a présenté ont présenté
   Presented presented

44. M: and it's se as well right?

45. D: sont présentés ils sont présentés?
   Presented they presented?

46. M: but you still have to keep the se in there remember? it's reflexive right?

47. D: yeah ils s-apostrophe-o-n-t?
48. M: oh right I see what you're saying remember with reflexive verbs they
49. always use the other auxiliary right (...) because you're using a form of avoir
50. D: uh huh
51. M: ont
52. D: ont
53. M: but they're always going to be using the other one because it's reflexive
54. D: oh oh it's être
55. M: être
56. D: so it's ils se sont présenté
      They presented/introduced themselves
57. M: voilà ils se sont présenté
      That’s it they presented/introduced themselves

M actually provides two metalinguistic clues in this interaction. First, he reminds Donna
that she is using a reflexive verb, and while he does not define this for her he does tell her
that she must take account of se. Then, in line 48, M realizes that Donna has tried to
incorporate this form into her construction but that there is another problem, namely the
selection of the auxiliary verb. Rather than correcting her, M reminds Donna that all
pronominal verbs in French are conjugated with a specific auxiliary verb (être). This,
too, fails to produce a response, and so beginning in line 49 M provides increasingly
explicit hints until Donna realizes the verb she needs and produces the correct structure.

5.2.11 Translation

Providing a translation in English of what the learner intended to say was useful
in a number of ways. In cases when learners produced an error but were unable to
identify or correct it with a less explicit form of mediation, providing an English
translation often made clear the meaning conveyed by a particular construction. Usually this was sufficient for learners to at least identify, if not correct, the mistake:

58. A: okay le semaine avant parce que à cause de Sean parce qu'il ne voulait pas  
   The week before because because Sean because he didn’t want

59. d'avoir des bébés avec elle  
   to have babies with her

60. M: right and now the part about she left him a week earlier la semaine  
   précédente could you just go over that again? There was something with the verb

61. A: elle est partie la semaine avant  
   She left the week before

62. M: okay so she had left him right?

63. A: okay so elle était partie?  
   She had left?

64. M: uh huh

During her second DA session, Amanda was more comfortable using the *imparfait* and the *passé composé*, and so M interpreted her reference in lines 58 and 59 to an event that preceded other past events in the story as an opportunity to probe her understanding of the *plus-que-parfait* or pluperfect. In line 60 M provides an English translation of the structure she had produced, ‘she left him a week earlier.’ This does not produce any change and so in line 64 M switches to ‘she had left him,’ which prompts Amanda to realize what needed to be changed. M does not provide the correct response but by making the change in English he provides a model for Amanda to follow as she thinks through her reformulation.
A second way in which translation was a helpful mediation technique was that it could be used to address lexical problems. For example, if a learner had trouble producing a specific item, considering ways in which it might be said in English often led to production of the appropriate French expression. Consider the following search for a lexical item to describe individuals who work on cars:

67. A: et uh aussi les gens qui (...) qui ont travaillé avec les voitures
   And uh also the people who (...) who worked with the cars

68. M: oh kind of like the guys who work on the car?

69. A: oui

70. M: in English I’d say the mechanics I guess right? Do you know the French word for that?

71. A: mécanice*?

72. M: mécanicien

In this excerpt from Amanda’s first DA session she had failed to produce the appropriate French term in line 67 and so circumlocuted with a definition. In line 68 M translates this definition into English, seeking confirmation from the learner, and then offers an appropriate English term. This sets Amanda on the right path, and her reciprocating move in line 72 suggests she has some familiarity with the French term mécanicien, although it is M who ultimately produces the word.

5.2.12 Providing example or illustration

Another technique that helped learners to reformulate utterances containing errors was to offer an example that illustrated the principle or pattern in question. This generally occurred after other forms of mediation had focused attention on the error but had not led to its solution. Examples proved to be especially useful as a follow-up to a
metalinguistic clue. For instance, the earlier illustration of a metalinguistic clue dealt with selection of the correct auxiliary verb. The following interaction, which took place during Donna’s first DA, also concerned auxiliary verbs, but this time more explanation was needed:

74. D: elle ne peux (...) est-ce qu’il y a un autre mot pour auxiliary (laughing)?
   She could not (...) is there another work for auxiliary

75. M: yeah like you use avoir and etre [when you’re using the past tense

76. D: je ne comprends pas ce mot]
   I don’t understand this word]

77. M: you have avoir or être and then for example je suis allé okay suis is the

78. auxiliary verb

79. D: oh okay

In line 74 Donna admits that she does not understand the word auxiliary, and so M responds by citing *avoir* and *être* as examples, and in lines 77 and 78 illustrates this with the phrase *je suis allé* (I went).

5.2.13 Offering a choice

This technique is described by Antón (2003) as a useful means of differentiating learners who have some understanding of the target structure from those who do not. In her use of DA with L2 Spanish students, she demonstrates that this form of mediation helped with the identification of learners who were able to recognize appropriate linguistic forms even when they were unable to produce it. Antón argues convincingly that while such learners are far from independently controlling the forms, it is important to recognize the level of knowledge/ability that they do have, since these learners are at a higher level of development than individuals who cannot identify correct forms. In the
present study, offering a choice was generally used after other forms of mediation had failed to lead the learner to the correct structure. In such instances, providing a choice between two alternatives could reveal whether there was any understanding at all of the concepts and structures involved. In many cases, this form of mediation was used when a learner had produced an erroneous form that had already been explicitly focused upon.

In the following excerpt from Sara’s second transfer session, M offers Sara a choice between the PP and imperfect of the verb dire (to say):

80. S: il a regardé la leçon que Cunégonde a donné Candide, il ne la aimait pas
   He watched the lesson that Cunégonde gave Candide and he didn’t like it

81. beaucoup alors…what are the words? [consulting book] il a disait* à Candide
   a lot so                                               he told/was telling to Candide

82. pour quitter la maison
   to leave the house

83. M: il a dit ou il disait?
   He told or he was telling?

84. S: il disait
   He was telling

85. M: il disait?
   He was telling?

86. S: et um…uh…[looking in book]

Sara incorrectly settles on the imperfect, and although the rest of the interaction is not given here (see chapter 7 for a more detailed discussion) M continued to work with her to overcome the problem.

5.2.14 Providing correct response

When other forms of mediation were not adequate to help learners or when M chose to focus on another error, the correct response was simply supplied. The following
was taken from Nancy’s first DA session in which she struggled to use the verb *avoir* (to have) in the PP:

87. N: …il a perdu le contrôle de la voiture et ils ont avoir une accident et elle a
He lost control of the car and they have to have an accident and she

88. pensé que-
thought that-

89. M: il a perdu contrôle de la voiture ils ont?
He lost control of the car they have?

90. N: ils ont ils ont av ils ont avoir (laughs) ils ont avoir wait ils ont avoir (…)
They have they have ha they have to have they have to have to have

91. M: something about accident?

92. N: what's the past tense the past participle of avoir?

93. M: eu
had

94. N: eu ils ont eu ils ont eu un accident
Had they had they had an accident

In line 93 the mediator supplies the missing form, *eu*, and Nancy is able to incorporate it into her narrative in line 94. In some cases, participants were able to repeat the form provided by the mediator but were unable to appropriately use it in a structure the way Nancy did; in other cases, the form provided did not make sense to the learner and still more mediation was required. Thus, it would be incorrect to assume that supplying the correct form always suggests a similar level of learner development because learners’ reciprocating moves were not uniform. For instance, Nancy’s ability to incorporate the form into her narrative suggests that she has the requisite knowledge and ability to understand how the form should be used in the construction she is trying to produce.
Developmentally, this is distinct from the learner who does not understand the correct form or cannot use it.

5.2.15 Providing explanation

The most explicit form of mediation used in the DA sessions occurred when a correct form was given by M but did not appear to be understood by the learner. In such cases, the correct answer was accompanied by an explanation. In the following exchange, taken from Jess’s second DA session, M helps the learner express the idea that Sean’s former girlfriend left him:

95. J: son ancienne petite amie lui est parti*
   His former girlfriend left him

96. M: You can actually use the verb quitter

97. J: Lui est quitté*? lui a quitté*? A lui quitté*?
   Left him? Left him? Left him?

98. M: yeah um

99. J: Quitté a quitté Sean?
   Left left Sean?

100. M: yeah elle a quitté Sean elle l'a quitté Sean is the direct object there
     She left Sean she left him

101. J: oh elle l'a quitté
     She left him

After M suggests a lexical switch from *partir* to *quitter*, Jess attempts to insert an object pronoun to state that she left him. She selects the indirect object pronoun *lui* rather than the correct direct object pronoun *le*; she is also uncertain where the pronoun should be placed. In line 100 M provides the correct structure and explains that the pronoun was selected because of its syntactic function.
5.2.16 Asking the learner to explain her reasoning or choice of structure

A final form of mediation that, to some extent, stands apart from the other forms in the typology and that is discussed in detail in chapters 7 and 8, involved asking learners to explain their reasons for selecting a given structure. This turned out to be a powerful form of mediation, often leading learners to notice errors and to realize the possibilities of using alternative constructions. In addition, it provided valuable information to the mediator regarding the learners’ level of awareness and control over given structures as well as their development of these abilities. This form of mediation is similar to the verbalization technique developed by Carlson and Weidl in their *Testing the Limits* approach to DA (Carlson & Weidl 1992). In the following interaction with Elaine, M is able to determine, on the basis of the reasoning she offers, that her selection of aspect is problematic:

102. E: Et finalement ils ont arrivé* ils arrivaient chez Sean et il s'inquiète il
And eventually they arrived they were arriving at Sean’s and he worries he

103. s'inquiétait
was worrying

104. M: And the verb arriver there you said ils sont arrivés and then arrivaient.

105. Why the switch there?

106. E: ils ont arrivé*
They arrived

107. M: Were you switching on purpose?

108. E: I switched back to ils ont arrivé*

109. M: ils ont arrivé*? so um passé composé right?

110. E: (nods)

111. M: Because uh?
Special attention is given to this form of interaction in chapter 8 because of the role it played in helping M to understand how learners were orienting to the assessment tasks and how they dealt with problems that arose. This was particularly important in understanding changes that occurred over time.

5.3 Learner Reciprocity Typology

As discussed in chapter 4, an area in DA research that has often been overlooked is the responsiveness of learners to mediation. As Lidz (1991) argued in the context of Feuerstein’s MLE, the dialogic nature of the interaction between mediator and learner requires careful consideration of the moves made by both participants. In particular, she proposed the term learner reciprocity to capture the contributions of the learners to the performance (p. 110). With this in mind, a grounded analysis of every session was carried out in order to determine the kinds of moves made by the learners. Importantly, the term reciprocity, as it is used in this study, includes not only how learners responded to mediation but also their efforts to actively seek it and even to refuse it. Thus, in much the same way that the mediation typology already described captures the mediator’s contributions to the assessment sessions, the learner reciprocity typology, represented in figure 5.2, highlights the various moves made by learners that are helpful in understanding their developmental level.
Just as the mediation typology was organized according to the principle of abstract to concrete, capturing the degree of explicitness of each mediational move, the reciprocity typology is arranged according to extent to which each move represents the learners’ ability to take on responsibility for their performance. For example, repeating a statement made by the mediator is a higher level of reciprocity than not responding at all because the former reveals that the learners have at the very least understood the mediation even if they are not able to use it independently to correct an error. This is not to say that learners who do not make any overt response to mediation could not have still benefited from it. However, without a subsequent verbalization or attempt to identify or overcome an error, any immediate effect of the mediator’s move cannot be known.\footnote{The effect of mediation over time is, of course, another matter. Indeed, this is an advantage to examining the same learner’s performance at different points in time. Such an analysis can bring to light development that has resulted from in some cases a single instance of mediation and in others the accumulation of mediational moves during one or several sessions.} Similarly, responding incorrectly is at a higher level than repetition because it indicates that the learner has made some attempt to incorporate the mediator’s hint or feedback into producing a revised utterance. Requesting additional assistance shows even greater reciprocity because such a move implies not only that the learners have understood the

\begin{itemize}
  \item Unresponsive
  \item Repeats Mediator
  \item Responds Incorrectly
  \item Requests Additional Assistance
  \item Incorporates Feedback
  \item Overcomes Problem
  \item Offers Explanation
  \item Uses Mediator as a Resource
  \item Rejects Mediator’s Assistance
\end{itemize}
mediation but also that they are aware that the assistance was not sufficient for them to correct their errors, and so they turn to the mediator and ask for additional forms of help. In this way, the learners take on even more responsibility for the performance because, rather than responding to mediation by producing an incorrect form, they ask for additional assistance that will better position them to overcome the problem. Thus, the range of moves represented in figure 5.2 continues to the highest levels, where learners have taken over responsibility for the performance and direct, to a great degree, their interaction with the mediator, at times rejecting his offers to help.

Taking into consideration learners’ interactions with the mediator and how these change over time is an important part of tracking development. For example, much can be learned about a given learner’s level of development by the quantity and quality of mediation that they require. A learner who needs extensive mediation, such as providing correct responses and explanations, is relatively far from controlling a given structure while a learner who needs only implicit mediation, such as a repetition request, is much closer to independently controlling the structure. Examining a learner’s reciprocating moves to the same form of mediation at two different points in time can also provide information about developmental changes. For instance, a learner may at one point be only able to repeat a mediator’s question or prompt but later is able to overcome the problem when given the same mediation. Such a learner has a different ZPD and is now much closer to independent control.

5.3.1 Unresponsive

The learners’ lack of response suggests simply that they did not engage in a dialogue with the mediator to address the issue that was pointed out. It may or may not
be the case that the learner failed to understand a mediational move or that they chose to ignore it; as explained above this cannot be known for certain. In the following excerpt from Sara’s first DA session, M encourages Sara to rephrase her utterance using a different preposition, but Sara does not comply:

113. S: Sean! Oui elle a continué à la maison de Sean
    Yes she continued to the house of Sean

114. M: yeah actually there's another thing that you can say in French for that,
115. they continued right to say that they're going to the house of someone
116. there's another way of saying that in French that's a little bit better because
117. it's more precise
118. S: okay which is?
119. M: it's a specific preposition they have that we don't have in English (...)
120. S: (shakes her head)
121. M: chez
122. S: oh chez le! Chez le Sean!
       oh to the home of the! to the Sean’s home
123. M: chez Sean
       to Sean’s home

In lines 114 to 117 the mediator begins implicitly by asking Sara to rephrase her utterance, although he translates it first into English. Sara does not attempt to revise her construction but instead relies on M in line 118 to provide her with the correct response. M responds in line 119 by offering a more explicit form of mediation, this time stating that there is a preposition she could use, but once again this does not prompt Sara to reply. She does not offer any prepositions she knows, neither does she ask M what a preposition is, nor does she attempt to structure the utterance in a different way to
circumvent the problem. In this case, M supplies the preposition *chez* (at or to the place of residence or business of) and the session continues. This exchange did not result in the learner arriving at the correct response; instead, M sensed that even with explicit forms of mediation Sara would not have been able to produce the appropriate construction. Importantly, this was not because the form in question was completely new or unknown – indeed, she clearly recognized the preposition when it was provided – but because she was not responding to the forms of mediation that were offered.

5.3.2 Repeats mediator

In some cases a learner responded to mediation by simply repeating what the mediator said, not making any structural or lexical changes even when such changes were necessary to fit the forms appropriately into the narrative. The lack of transformation places this kind of reciprocating move on the low end of the hierarchy in figure 5.2, although this is an important first step that often forms a part of a longer, more in-depth interaction between mediator and learner. Consider the following example.

During her first transfer task, Amanda attempted to narrate the *Pianist’s* narrow escape from the German army and she realized there was a good deal of very specific vocabulary that she had not previously encountered but that was important for narrating scenes of war and violence:

124. A: …les Nazis sur le toît côte sur le côte d'autre appartement l'ont vu
    …the Nazis on the roof across on the across of the other apartment saw it
125. (…) et um le Pianiste a est tombé-
    and um the Pianist fell
126. M: there's the verb tirer to fire
127. A: ils ont attiré et uh à
    They attracted and uh at
In lines 124 and 125 Amanda attempts to say that the German soldiers saw the Pianist and fired at him, causing him to fall from the space where he was hiding. She pauses halfway through the utterance, and M senses that she needs assistance with the specific lexical items required to narrate the scene. He interrupts and supplies the verb tirer which he translates for her as ‘to fire.’ In the next line, Amanda attempts to use this verb in her narrative but has confused it with another verb, attirer (to attract), producing the past participle attiré. M corrects her and in line 130 supplies the correct past participle, which she repeats but does not incorporate into her narrative. M then provides the past participle in its proper context, providing the relevant subject pronoun and auxiliary verb,
but this still does not prompt Amanda to insert the phrase into her narration; instead, she simply repeats M’s words. Finally, M supplies additional words she could use to complete the utterance in lines 134 and 136, and Amanda continues to repeat these one word at a time until the narrative moves beyond the problematic section, at which point she resumes her narrative. The fact that Amanda required extensive mediation suggests that the formation of the required structure – the need for a new lexical item, the decisions regarding tense and aspect, and the selection of an appropriate preposition – was sufficiently complex that it lay outside her current level of ability.

5.3.3 Responds incorrectly

In some cases, a form of mediation was provided that the learners then attempted to use in their narrative, but it led to additional errors. In some cases, this involved the mediator suggesting that the learner renarrate a passage while in others the mediation was more explicit, such as provision of a metalinguistic clue or offering a choice. This type of learner reciprocity was coded when such mediational moves failed to produce a correct response. When this happened, M turned to a more explicit level of mediation. The following is an illustration of mediation failing to bring about an appropriate response:

138. S: nous allons bombarder le bâtiment
   We are going to bomb the building
139. M: right now that would be the present tense and if you were going to
140. switch that from we're going to bombarder to we were going to we were
141. going to bomb it
142. S: nous uh um (…)
143. M: you can actually just use the imparfait right? they were going to
144. S: … nous avons bombardé?
…we bombed?

In this episode from Sara’s first transfer task, the learner initially produces a structure using the present tense of the verb aller indicating that the soldiers are going to bomb a target. In lines 139 to 141 M points out her use of the present tense and suggests switching to the past, providing an English translation of the present and past structures. Sara does not respond to this initial prompt, and so M becomes somewhat more explicit by naming the aspect she should use, the imperfect. Sara complies but does so unsuccessfully, using the PP instead. In fact, she also switches the meaning of her utterance from “they were going to bomb” to “we bombed.” While this is grammatical, it is coded as an incorrect response because Sara was not sensitive to the change in meaning but was in fact trying to produce the imperfect, as became clear later in the interaction.

5.3.4 Requests additional assistance

An especially important move was when learners recognized the need for further assistance from the mediator. Thus, there were interactions in which M offered help but the learners realized that it was not sufficient and so, rather than guessing, they asked for additional clues or feedback. The following example is from Donna’s first DA session:

145. D: …elle ne ja elle ne (...) elle ne pouv pouvrait* jamais faire un- …she not she not (...) she couldn’t wouldn’t ever be able to do

146. M: oh conditionnel?

147. D: conditional past

148. M: right

149. D: elle elle ne peux jamais faire
   She she can’t ever do

150. M: actually you would form the conditional in that case with the auxiliary
Initially Donna struggles to use the conditional of the verb *pouvoir* (to be able) whereupon M interrupts, in line 146, to make sure he has understood correctly. When Donna responds that she is trying to form the past conditional rather than the present, M hesitates before deciding to launch into a discussion of a structure the learner may not have encountered yet in her studies. In line 149 Donna switches from the conditional to the present indicative, and M decides to determine to what extent Donna understood the conditional structures. He begins with a metalinguistic clue in line 150. It should be kept in mind that at this point in the session mediator and learner had already discussed auxiliary verbs in the context of the PP, and so M assumes some familiarity with the terminology on the learner’s part. However, it becomes clear that this assumption is off the mark when Donna requests clarification of the word auxiliary in line 152. Thus, she recognizes that M is attempting to help her form the necessary construction but she is also aware that the assistance he is offering is not explicit enough for her to be successful. She identifies the problem and requests a specific form of information. When M
responds using the examples of *avoir* and *être* to illustrate the concept, she immediately recognizes them and, with some further mediation, ultimately produces the correct form of the past conditional.

5.3.5 *Incorporates feedback*

A very common form of learner reciprocity involved learners making use of the mediator’s assistance to arrive at constructions that were more appropriate or correct. Importantly, this does not mean that the resultant expression was entirely correct but it was more precise than it had been prior to mediation. The key feature of this kind of reciprocating move was that learners made use of M’s comments to transform and improve their narratives. The following illustration was taken from Amanda’s first transfer assessment:

158. A: …et aussi ils ont ils ont fait des explosions
    …and also they they made some explosions

159. M: uh une bombe une bombe [(?)
    A bomb a bomb

160. A: oui bombe uh l'édifice Nazi
    Yes bomb uh the Nazi structure

161. M: um le verbe c'est bombarder
    The verb is to bomb

162. A: bombarder ils ont bombardé une bombe l'édifice Nazi
    To bomb they bombed a bomb the Nazi structure

In line 159 M completes Amanda’s utterance with bombe *faire exploser des bombes* (to set off bombs) but Amanda uses the word *bombe* in line 160 as a verb rather than a noun. M corrects her by pointing out that the verb is actually *bombarder* (to bomb), and Amanda reformulates her utterance using both the verb *bombarder* and the noun *bombe*. 
This is not completely correct, but it does show that Amanda is benefiting from the mediation and improving upon her initial construction.

5.3.6 Overcomes problem

This category of reciprocating move was reserved for those instances when mediation led learners to correctly identify a problem and overcome it. Consider the following excerpt from Sara’s first transfer task where M helps her to restructure part of her narrative:

163. S: …ils a* évacué l'appartement maintenant? Parce que … they evacuated the apartment now? Because
164. M: well that they had to right?
165. S: oui il est nécessaire pour pour Yes it is necessary for for
166. M: the past though
167. S: il est necessaire it was necessary il est necessaire il était nécessaire pour it is necessary it was necessary to évacuer evacuate

In line 164 M interrupts not to address the form Sara had selected (although there is an error in her use of the auxiliary verb with évacuer in line 163) but to comment on the meaning, suggesting that the event in the film was not simply that the inhabitants left the building but that they needed to flee due to an impending attack. Sara responds with the construction “it is necessary” and when M points out that she is using the present tense, Sara repeats the structure and uses English to arrive at an appropriate past tense construction in line 167.

Of course, a single instance of a correct response should not be taken as evidence that the individual has fully acquired/gained control over a particular construction or
Indeed, the analysis of performance on tasks preceding and following the intervention program, as well as on transfer tasks, is more appropriately used to determine development. However, this interaction must surely have contributed to Sara’s development.

5.3.7 Offers explanation

Besides reformulating an utterance in response to mediation, learners also sometimes reasoned aloud as they made their revisions. Interestingly, this occurred not at the request of the mediator but was something learners did on their own and was most often observed in the assessment sessions following the enrichment program. This kind of verbalization was a significant form of self-mediation (a point discussed in detail in the chapters 7 and 8) since it allowed learners to simultaneously work out hypotheses and propose solutions with feedback from the mediator while also providing the mediator with insights into how the learners oriented themselves to a particular problem. The following was taken from Donna’s second DA session:

169. D: …Samuel et Rebecca continuaient leur discussion au sujet de cette…Samuel and Rebecca were continuing their discussion about this

170. nouvelle cette nouvelle qu'elle lui* a partagé
news this news that she shared to him

171. M: qu'elle sorry?

172. D: qu'elle a lui qu'elle lui* a partagé?
That she to him that she shared to him?

173. M: okay

174. D: partager à donc j'ai utilisé le mot lui
To share to therefore I used the word him

175. M: okay
176. D: partager veut dire to share?  
Partager means to share?  

177. M: uh to share  

178. D: okay um et uh Samuel l'accusait  
And uh Samuel was accusing her  

Donna’s use of the indirect object pronoun lui in line 170 catches M’s attention because the verb partager (to share) is correctly used in such instances with the prepositional phrase avec lui (with him). Donna is quite confident in her response to M’s initial request for repetition and explains further in line 174 that the verb partager is followed by the preposition à and so takes an indirect object, thus leading her to select the pronoun lui. M decides at this point not to correct her, preferring to move on with the narrative. Donna seems to detect that the mediator has noticed a problem and so she verifies in line 176 that she has selected the appropriate verb.

5.3.8 Uses mediator as resource

As mentioned earlier, learners sometimes responded to the mediator’s attempts to help them overcome a problem by requesting additional assistance. In such instances, the learners had already attempted a construction, produced an error, and been given some form of assistance. However, they recognized that the mediation offered was insufficient for solving the problem and so, instead of giving up or asking the mediator for the correct word or construction, they asked for some additional form of help. A related move involved using the mediator’s knowledge as a reference while formulating an idea. In this case, learners are not eliciting feedback on their performance but instead are requesting assistance prior to initiating their performance. The significance of this kind of interaction is that it indicates a major shift in the learners’ orientation to the assessment
procedure. The learners no longer view this sort of dialogue as “cheating;” instead, they understand that it is an important way of letting the mediator know how they are approaching the task and where they are encountering difficulty, which in turn can facilitate their own development. In some cases, learners’ use of the mediator paralleled the way they might use a dictionary or grammar reference; that is, they requested a specific lexical item or linguistic form. In other cases, learners elicited hints and clues to help them arrive at an appropriate construction in much the same way that the mediator regularly intervened to offer this kind of information.

Consider the following taken from Amanda’s second DA session:

179. A: …la contrôle de naissance n'est pas absolument effective et Samuel ne …birth control is not completely effective and Samuel

180. n'a pas croit cru?*
   Didn’t believes believe

181. M: uh which tense?

182. A: passé composé

183. M: oh croire has cru for a past participle

184. A: uh

185. M: so what was it il?

186. A: il ne lui ne lui a pas cru?*
   He didn’t believe it

187. M: except lui is an indirect object right?

188. A: yeah so it would be il ne l'a pas cru? et Rebecca
   He didn’t believe it? And Rebecca

In this example, Amanda turns to M for assistance through her use of a questioning intonation in line 180, where she selects the PP and produces two past participles, croit (a
present tense form) and the correct *cru*. Rather than providing feedback regarding the past participle, M responds by shifting the focus to the choice of aspect, as the imperfect seemed appropriate given the context. However, Amanda is convinced that the PP matches the meaning she wishes to express and so she responds to M’s question with confidence. In line 183 M confirms that one of the past participles she had produced (*cru*) was correct. However, Amanda realizes that this is not sufficient for her to continue her narration, and her hesitation in line 184 prompts M to try to start her off. The source of Amanda’s hesitation becomes clear in line 191: she is no longer concerned with the past participle but has instead shifted her focus to the selection and placement of an object pronoun. Amanda has several particles to contend with, and so she casts her utterance as a question eliciting further help from M, who accepts her word order but points out the problem in the kind of object pronoun she selected. M’s observation that *lui* is an indirect object pronoun prompts Amanda to re-think the utterance and to produce the correct form in line 188.

What is noteworthy about this interaction is that the locus of control resides, to a great extent, with Amanda. To be sure, M’s contributions continue to play an important role in helping the learner arrive at the correct structure. However, it is Amanda who initiates the exchange by turning to M for help with the selection of a past participle. She then incorporates the feedback she receives on this issue but, realizing that the construction she is forming requires an object pronoun, she elicits further assistance from M. The distinctive characteristic of this form of reciprocating move, then, is that it is largely learner-directed. It does not involve the mediator intervening to help a learner identify or correct an error. Rather, the learners themselves demonstrate an awareness of
the ideas they wish to express and the specific kinds of assistance they need from the
mediator. In the final level of reciprocity that was identified, learners take this one step
further mediating themselves and refusing offers of assistance from M.

5.3.9 Rejects mediator’s assistance

There were some instances in which learners were confident that they could arrive
at an appropriate construction to express a given idea without interacting from the
mediator, and so they opted to either disregard M’s assistance or ask that he refrain from
helping them. This finding is similar to that reported in Aljaafreh and Lantolf (1994),
where participants demonstrated their level of development by declining the tutor’s offers
to help because they knew they could succeed on their own. The following example
concerns Amanda’s lexical search during her first transfer task.

189.  A: so ont été détruits
       So were destroyed

190.  M: right right

191.  A: par des Nazis et il a échappé par le tri
       By some Nazis and he escaped by the ‘tri’

192.  M: oui le trou le trou [the hole
       Yes the hole the hole

193.  A: le cercle] dans le mûr et il parti
       The circle] in the wall and he leaves

The mediator hears Amanda say “tri” in line 191 and understands that she is attempting
to say trou (hole) since the character had escaped the apartment through a hole in the
wall. He interrupts to provide this word but Amanda disregards the offer and instead uses
the word cercle (circle) since the hole was in a circular form. Of course, this choice is
not appropriate in this context and the learner would have done better to accept M’s
suggestion. Nevertheless, it demonstrates that Amanda felt she was able to get through this portion of the narrative independently and that she preferred to search for a way to circumlocute rather than accept help from the mediator.

As in the above example, refusing the mediator’s assistance did not always result in appropriate performance. However, it clearly indicated the learners’ confidence that they were able to use the language autonomously. In some cases, the learners were successful, and any intervention on the part of the mediator would have been superfluous and would have underestimated their abilities since they were, in fact, capable of mediating themselves. As Newman, Griffin and Cole (1989: 87) point out in their discussion of the ZPD, it is important for the mediator to be present as learners endeavor to perform on their own so that he can catch them “when they do slip over the edge of their competence.”

5.4 Conclusion

This chapter presents a systematic way of analyzing the mediator’s cooperative dialogues with the learners in order to track developmental changes that may have occurred over time or even within a given session, a point returned to in chapters 7 and 8. Inventories of the kinds of moves made by the mediator and the learners during these interactions were described and illustrated with protocols from the assessments. The various mediational moves carried out by M were categorized according to their function – whether they served to manage the interaction, encourage learners to reconsider their performance, help the learners to identify an error, assist them in overcoming a problem, or probe for understanding. The moves are organized in an implicit-to-explicit hierarchy reflecting the extent of the mediator’s assistance during the sessions. In a parallel
fashion, the reciprocity typology brought to light the learners’ moves during the interactions, addressing what Lidz (1991) has identified as an area that is often overlooked in DA research. Just as the mediation typology was arranged according to explicitness, reciprocity was described in terms of lowest to highest, referring to the extent to which the learners took responsibility for their performance.

In this way, changes in the mediation required and in the learners’ reciprocity can be tracked over time. This allows for claims to be made regarding the learners’ developmental level, understood in terms of their ability to control the linguistic forms in question. For example, as Aljaafreh and Lantolf (1994) argued, it would be a mistake to assume that learners have not developed simply because they are still unable to independently control a given structure after instruction. The same mistake may have a different psychological status, and this can only be determined through interaction with the learners. In the context of the present study, the learners who require a translation at one point but a reminder of the directions at another, or who are unresponsive at one point but overcome the problem at another, these learners have developed, even if it does not manifest itself in their independent performance. Of course, in addition to considering the kinds of moves made by the mediator and the learners during the assessments it is also important to examine their frequency, and this is the subject of the next chapter.
CHAPTER 6 – DATA ANALYSIS AND DISCUSSION:
INDEPENDENT PERFORMANCE AND INTERACTION WITH THE MEDIATOR

6.1 Introduction

The previous chapter described and illustrated the kinds of interactional moves made by the mediator and the learners during the assessment sessions. It was argued that some types of mediation were more explicit than others, and that the degree of explicitness required is indicative of how close the learners are to independently controlling the relevant linguistic features of the L2. In this way, learners who need only implicit mediation, such as a request for repetition, in order to improve are closer to controlling the forms on their own than learners who require more extensive mediation, such as a ‘translation’ or a ‘choice’ between two forms. Similarly, learners’ reciprocating moves during the assessments also provide information regarding their development. For example, a low level of reciprocity, such as simply ‘repeating the mediator,’ suggests that learners are further from taking control of their performance than if they reciprocate by ‘incorporating feedback’ to produce an appropriate form.

This dual approach to examining the interactions between the mediator and the learner forms the basis of the analysis of the assessment sessions in the following three chapters. The present chapter examines each participant’s performance during the assessments and presents frequencies of the various kinds of mediational and reciprocating moves produced. More specifically, comparisons of interactions during the dynamic session at time 1 (prior to the enrichment program) and at time 2 (following the enrichment program) provide evidence regarding the extent to which learners are taking on responsibility for their performance and are approaching a point where they are able to
independently control the linguistic features in question, namely verbal tense and aspect. In order to ascertain the quality of the observed changes, the interactions during the second dynamic assessment were then compared to the transfer assessments. As argued earlier, development from a Vygotskyan perspective involves changes that go well beyond training for performance on a given task. How much support learners require to sustain their abilities as they encounter different and more complex problems indicates their degree of control over the forms.

In addition to changes in the mediator’s collaborations with the learners, attention is also given in this chapter to the learners’ independent performance both before and following the enrichment program. Analysis of these static assessments focuses on the learners’ control over verbal tense and aspect, both in terms of producing the correct forms as well as using them with an appropriate aspectual function.

Two final points regarding the cooperative dialoguing between the mediator and the learners include: 1) extension of discussions of tense and aspect in narratives to the conditional and the pluperfect – features not explicitly focused on in the DA sessions; and 2) learners’ attempts to self-correct as they used tense and aspect. Importantly, attempts at self-correction and inclusion of the conditional and pluperfect were initiated not by the mediator but by the learners themselves. Use of the conditional and pluperfect is noteworthy because these forms are related to the discussions of the PP and imperfect that occurred during the assessments and the enrichment program but they themselves were not the focus of intervention. Instead, they represent evidence of learners “stretching” their understanding of tense and aspect and exploring the use of other linguistic form-function mappings as they construct their narratives. Self-corrections are
interesting because they provide insight into learners’ ability to control their own performance. Although not always successful, self-corrections indicate that the learners were monitoring their performance, a sign of enhanced awareness of and ultimate control over the feature.

The matter of awareness evokes a crucial source of information for understanding learners’ performance: their verbalization of why they selected certain forms and what meanings they were trying to construct. As Carlson and Weidl’s Testing the Limits Approach to DA has illustrated, learners’ verbalizations can reveal where performance is breaking down (e.g., inappropriate perception of the problem, incorrect orientation to the problem, insufficient knowledge for solution, etc.) and also has the potential to encourage further reflection by the learner – reflection that may lead to improved performance. Chapter 8 addresses learners’ verbalizations in detail, but these data are alluded to in the present chapter because they are helpful in interpreting some of the surprising findings discussed below. References to verbalization in the present chapter are made only when necessary to substantiate interpretations of the data. Analysis of the verbalization data itself is fleshed out in chapter 8.

6.2 Independent Performance Before and After Enrichment

Comparing learners’ performances in the two SA sessions yielded several interesting findings that support claims regarding development through cooperative dialoguing with the mediator. For each learner, all the verbs used in both sessions were first coded to indicate tense and aspect; they were then coded to indicate whether this choice was appropriate and whether the form was produced correctly. For example, in a construction such as “après la conversation, ils avaient un accident” (after the conversation they were
having an accident), the verb *avai*ent* was coded as past tense, imperfect aspect, correct formation, inappropriate usage. In terms of verb tense, all verbs produced during these sessions were either in the past or present. Learners were directed at the outset that their narratives should be in the past, but occurrences of the present were found with all participants in both sessions. In some cases, the present was appropriate, as when learners used this tense to directly report speech (e.g., Sean said, “I do not want children.”) or to distance themselves from the story to provide some commentary (e.g., “One *can see* that the character Sean did not want to have children.”). However, the majority of present tense usage did not fall into either of these categories but represented inappropriate deviations from the past. With this in mind, percentages were calculated of the number of verbs in the past tense as well as the number of cases in which the passé composé and the imparfait were appropriately used. Tables 6.1 and 6.2 summarize these counts and percentages for both enrichment and non-enrichment learners during the two SAs.
Table 6.1 Comparison of Independent Performance at Time 1 and Time 2

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AMANDA</th>
<th>DONNA</th>
<th>JESS</th>
<th>SARAH</th>
<th>ELAINE</th>
<th>NANCY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA1</td>
<td>SA2</td>
<td>SA1</td>
<td>SA2</td>
<td>SA1</td>
<td>SA2</td>
</tr>
<tr>
<td>All Verbs</td>
<td>31</td>
<td>34</td>
<td>61</td>
<td>52</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Passé Composé</td>
<td>10</td>
<td>23</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Correct formation</td>
<td>9</td>
<td>18</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Incorrect formation</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Appropriate use</td>
<td>6</td>
<td>20</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Inappropriate use</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Imparfait</td>
<td>8</td>
<td>7</td>
<td>14</td>
<td>25</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Correct formation</td>
<td>8</td>
<td>7</td>
<td>13</td>
<td>25</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Incorrect formation</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate use</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>20</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Inappropriate use</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Présent</td>
<td>12</td>
<td>4</td>
<td>42</td>
<td>21</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Correct formation</td>
<td>12</td>
<td>3</td>
<td>40</td>
<td>20</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Incorrect formation</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate use</td>
<td>1</td>
<td>0</td>
<td>22</td>
<td>16</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Inappropriate use</td>
<td>11</td>
<td>4</td>
<td>20</td>
<td>5</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Note that the total number of verbs reported for Amanda in SA1 is greater than the sum of her uses of the present, the passé composé and the imparfait. This is due to one instance in which she used the pluperfect. Her use of this form was correct and appropriate and is included in the percentages concerning past tense use given in the table. Its use is discussed later in this chapter.
Table 6.2 Learners’ Use of *Passé Composé* and *Imparfait* During SA1 and SA2

<table>
<thead>
<tr>
<th>Category</th>
<th>Amanda</th>
<th>Donna</th>
<th>Jess</th>
<th>Sara</th>
<th>Elaine</th>
<th>Nancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Verbs in Past Tense</td>
<td>61%</td>
<td>31%</td>
<td>64%</td>
<td>40%</td>
<td>75%</td>
<td>29%</td>
</tr>
<tr>
<td>Total Cases Requiring <em>Passé Composé</em></td>
<td>22</td>
<td>30</td>
<td>11</td>
<td>7</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>% of Appropriate Use of <em>Passé Composé</em></td>
<td>27%</td>
<td>45%</td>
<td>43%</td>
<td>43%</td>
<td>78%</td>
<td>50%</td>
</tr>
<tr>
<td>Total Cases Requiring <em>Imparfait</em></td>
<td>13</td>
<td>17</td>
<td>13</td>
<td>31</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>% of Appropriate Use of <em>Imparfait</em></td>
<td>15%</td>
<td>38%</td>
<td>39%</td>
<td>29%</td>
<td>29%</td>
<td>0%</td>
</tr>
</tbody>
</table>

6.2.1 Enrichment participants’ independent performance

One important sign of improvement over time was the greater use of the past tense by the enrichment learners (ELs) during SA2. For each of these learners, the percentage of the verbs that were in the past tense rose dramatically in the second session as compared to the first. In the case of Amanda, the past tense rose from 61% of the total verbs in SA1 to 88% in SA2. The most dramatic increase was with Sara, who used the past only 40% of the time during the first assessment but increased to 82% in the second. In addition to relying less on the present tense, some of the EL also used this tense more appropriately from SA1 to SA2. For example, Donna produced only half as many present tense verbs in SA2 as in SA1 and, unlike in SA1, more of these were appropriately used (22/42 in SA1 and 15/21 in SA2). Similarly, Jess’ use of the present
tense was less frequent in SA2 and was also more appropriate (8 uses of 9 were inappropriate in SA1 but only 1 of 3 was in SA2).

As for aspect, the ELs also showed marked improvement during SA2. This became patently clear when a percentage was calculated of the appropriate use of the passé composé and the imparfait. The appropriate use of aspect increased for all ELs, in some cases dramatically. With regard to the PP, Jess’s appropriate use of these forms doubled between times 1 and 2 (45% in SA1, 90% in SA2), and with Amanda the level of appropriateness more than tripled (27% in SA1, 95% in SA2). In fact, only Donna continued to struggle with the PP during SA2 (17% appropriateness in SA1 and 43% in SA2). While the instances when she used the PP were appropriate, she persisted in relying on the present tense in cases that called for the PP. Nevertheless, it is important to keep in mind that, relative to her initial performance, her improvement was substantial.

All the ELs also showed marked improvement in their use of the imperfect. With Jess, the appropriate use of the imparfait rose from 38% in SA1 to 86% in SA2, and with Sara it increased from 39% to 73%. Amanda did not reach the same level of control as the other ELs, although she also made important gains (15% in SA1, 54% in SA2). Analysis of her performance reveals that while her uses of the imperfect were appropriate, there were many instances in which she incorrectly selected the PP or the present instead of the imperfect. As with Donna’s greater control over the PP, Amanda’s improved use of the imperfect should not be overlooked, since they gained considerably over their initial performances.
6.2.2 Non-enrichment participants’ independent performance

The results for the non-enrichment learners (NL) were mixed. Nancy showed similar patterns to the other ELs, dramatically improving her performance over time, while Elaine’s performance was actually stronger in the earlier session than the later one. Specifically, the percentage of verbs Nancy used in the past tense rose from 29% in SA1 to 73% in SA2, and her control over aspect also increased. In fact, in SA1 she failed to use the imperfect appropriately even once, while in SA2 the level of appropriateness rose to 29%. Her use of the PP similarly increased from 50% appropriateness to 91% in SA2. Elaine, on the other hand, used the past tense less during the second session than in the first (75% in SA1, 56% in SA2). It is also noteworthy that at time 1 Elaine had the highest percentage of appropriate use of PP among all the learners (78%) but at time 2 she had the second lowest percentage (62%).

These findings were not expected. It was hypothesized that the EL, because they had engaged in collaborative dialogues with the mediator during the DA sessions as well as the enrichment program, would show substantial improvement in their control of tense and aspect but that the NL, who only received mediation during the dynamic assessments, would make more modest gains. A single DA may not lead to any permanent developmental changes, although this is certainly possible. Feuerstein and his colleagues (Feuerstein et al. 1988), while acknowledging the possibility of what Vygotskian researchers refer to as microgenetic development, warn against hopes of substantial improvement as a result of a single exposure to MLE, arguing that developmental work must be ongoing. Indeed, as noted in chapter 3, Feuerstein’s IE program typically involves around 300 hours of instruction.
Neither Elaine nor Nancy made modest gains between times 1 and 2. Surprisingly, Elaine’s performance actually declined. She relied more on the present tense during SA2 and also used the imperfect and the PP less appropriately than she had in SA1. Her lack of improvement may be attributable to her resistance to engaging in a dialogue with the mediator during DA1. This point is considered in chapter 8, but for now it is interesting to note that Elaine interacted very little with the mediator during DA1. However, while this might explain her lack of development, it does not explain why her performance deteriorated over time. The only insight into this phenomenon comes from Elaine herself – she commented that she did not have any opportunities to orally recount past events in French between times 1 and 2 (such an activity was apparently not a part of her advanced oral expression course). Additional discussion with the learner may have further illuminated the reasons for her decline in performance.

Nancy, on the other hand, exceeded expectations, making gains comparable to those of the EL. While her improvement may have resulted from external factors (e.g., an activity in class, an interaction with a peer, etc.), her verbalization data, as will be discussed in chapter 8, suggest that dialoguing with the mediator during DA1 helped her to understand the use of tense and aspect differently, and that she was continuing to incorporate this new understanding into her existing base of knowledge at time 2. Nancy, then, would appear to be an example of an individual who developed after a single DA session. Of course, this argument can only be supported by a careful analysis of her verbalizations but these will not be considered in detail until chapter 8.
6.3 Movement in the ZPD

As explained above, analysis of the learners’ performance during the mediated sessions is based on Aljaafreh and Lantolf’s (1994) argument that development can manifest itself not only in improved independent performance but also through changes in the amount and kind of mediation learners require. With this in mind, all of the sessions that involved mediator-learner interactions (DA1, DA2, TR1, TR2) were coded for the presence of the various mediational and reciprocating moves that comprise the typologies. Comparisons of learners’ performances at different points in time and while performing various tasks allow for greater sensitivity to development than is the case if we only consider actual learner production. The present section focuses on the dynamic assessments; the transfer assessments are discussed in the following section.

Comparisons of the two DA sessions seek to establish the learners’ ZPDs at these two points in time. For example, a learner who requires fewer interventions or less explicit mediation at time 2 than at time 1 can be said to have developed, even if independent performance (as indicated by SA2) does not indicate full control over the relevant feature. By examining the precise kinds of mediation needed by an individual as well as their reciprocating moves, it is possible to track development over time. The comparisons of mediator-learner interactions during DA1 and DA2 are summarized in tables 6.3 and 6.4. The former captures the mediational moves\(^\text{12}\) from the two sessions for each of the learners while the latter presents the reciprocating moves.

\(^{12}\) Note that the last category, ‘Asking for Explanation,’ was not included in the total count of moves reported. This form of mediation was intended to elicit verbalizations and was not aimed at pointing out errors or helping learners overcome problems.
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AMANDA</th>
<th>DONNA</th>
<th>JESS</th>
<th>SARA</th>
<th>ELAINE</th>
<th>NANCY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DA1</td>
<td>DA2</td>
<td>DA1</td>
<td>DA2</td>
<td>DA1</td>
<td>DA2</td>
</tr>
<tr>
<td>Mediation</td>
<td>34</td>
<td>24</td>
<td>22</td>
<td>10</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Helping move narration along</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accepting response</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Request for repetition</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Request for verification</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Reminder of directions</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Request for renarration</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Telling location of error</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Telling nature of error</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Metalinguistic clues</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Translation</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Providing example or illustration</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Offering a choice</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Providing correct response</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Providing explanation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 6.3 Mediational Moves During Dynamic Assessments
6.3.1 Mediation with enrichment participants

For the EL, the overall trends that emerged are as follows: a) they required less mediation during DA2; b) the mediation offered in DA2 was less explicit (i.e., focusing on managing the interaction and prompting learners to reevaluate an utterance); and c) in DA2 the learners’ reciprocating moves were generally at a higher level (i.e., ‘incorporating feedback,’ ‘overcoming problems,’ ‘offering explanations’). In addition to
these trends, several interesting differences also exist within this group regarding both the number of mediational and reciprocating moves and their quality.

Sara and Amanda did not show the same dramatic decrease as the other two EL in the number of interventions they required. Instead, to appreciate the development these learners made, one must consider the quality of the mediation offered. For example, the mediator’s total number of moves during Sara’s two DA sessions changed very little, and in both cases implicit as well as explicit forms of mediation were used. However, 5 of the 9 mediational moves during DA2 were focused on ‘helping the narration along’ and ‘requesting verification’ or ‘repetition’ of Sara’s utterances. Moreover, while there were 4 occasions in DA1 when Sara did not respond to less implicit forms of mediation and needed the mediator to give her the correct response, this did not occur at all during DA2.

These changes in the quality of mediation are even more striking in the case of Amanda. In DA1 the mediator provided a predominance of ‘metalinguistic clues’ and ‘translations’ (7 and 4, respectively) while in DA2 the mediator’s moves included 5 instances each of ‘requesting repetition’ and ‘asking for verification of a response.’ Considered in terms of the mediation purposes described in the previous chapter, the shift in mediation can be understood as moving from helping Amanda overcome errors at time 1 to encouraging her to reflect on her performance and to identify and self-correct at time 2. For Sara and Amanda, then, simply considering the total number of moves required from the mediator would obscure the fact that they were closer to appropriate independent performance during DA2. In other words, both learners had developed.

Shifts in the mediator-learner interactions were even clearer with Donna and Jess. Like Amanda and Sara, Donna also required less explicit mediation at time 2 and actually
needed fewer interventions overall. In fact, the total number of moves made by the mediator was reduced by more than half (22 in DA1 and 10 in DA2). In addition, she needed six ‘metalinguistic clues’ in DA1, and 4 times the mediator had to supply the correct response; in DA2, both forms of mediation were used only once. This suggests that after enrichment there were still times when Donna needed explicit forms of mediation but, importantly, these occurrences were less frequent than they had been prior to enrichment. Thus, she was more often able to work through difficulties on her own.

Following enrichment, Jess was actually the closest to independently controlling tense and aspect. The number of mediational moves were reduced by more than half and all the moves in DA2 were implicit. In fact, Jess only required 5 interventions during DA2: 4 ‘requests for repetition’ and 1 ‘verification request.’ While the mediator’s presence was no doubt helpful during this later DA session, it is clear that Jess had taken over control of her performance.

6.3.2 Enrichment participants’ reciprocity

Further evidence that the ELs were closer to independent performance during DA2 comes from analysis of their reciprocating moves. As stated earlier, all four learners generally reciprocated at a higher level during DA2. For example, in Sara’s initial DA, her 6 reciprocating moves included simple ‘repetitions of the mediator’ (1), ‘incorrect responses’ (1), and ‘lack of responsiveness’ (3). In contrast, during DA2 half of her 8 moves involved actually ‘overcoming the problem,’ and an additional 2 were instances where she ‘used the mediator as a resource.’ Jess showed a similar pattern. While she only made 6 reciprocating moves during the second DA session, 5 of these were ‘overcoming the problem.’ Amanda differed from this pattern slightly in that her
total number of reciprocating moves declined from 20 in DA1 to 10 in DA2, although she showed the same change with regard to the breakdown of these moves: in DA1, nearly half (9/20) were ‘incorrect responses’ while in DA2 half (5/10) were ‘overcoming the problem.’

Thus, all the ELs interacted differently with the mediator during DA2. Their independent performance, as captured during SA2, had improved, and as a result they required less assistance from the mediator. To be sure, the mediator’s presence was still important, whether to provide reminders when learners did make mistakes, to give them a chance to renarrate a difficult sequence, or to provide confirmation of the forms they produced. However, they relied less on the mediator during DA2 to help them identify and correct errors; they were better positioned to do this on their own.

6.3.3 Mediation and reciprocity among non-enrichment learners

Quite different patterns were found among the non-enrichment learners (NLs). Both Nancy and Elaine showed very little change in the amount and kind of mediation they required during the two sessions. With Elaine there were 12 mediational moves in all during DA1 and 7 in DA2, while with Nancy there were 10 and 12, respectively. With both learners, implicit as well as explicit forms of mediation were used during the two sessions. For instance, many of the mediator’s moves during Nancy’s first DA involved ‘repetition’ and ‘verification requests,’ but there were also 4 cases in which the ‘correct response’ was provided to her. During DA2, she only needed ‘the correct response’ 2 times, but there were also 2 cases in which ‘translations’ were given and 1 in which a ‘metalinguistic clue’ was provided.
More interesting differences between the two NLs appear when one considers their reciprocating moves. Nancy showed very little change in her reciprocity during the assessments; her moves ranged from ‘repeating the mediator’ to ‘incorporating feedback’ to ‘using the mediator as a resource.’ She did, however, produce fewer moves during the second session, with the total number falling from 14 to 9. Elaine, on the other hand, exhibited approximately the same number of reciprocating moves for both sessions (7 and 8, respectively) but displayed a much higher level of reciprocity during DA. In fact, in the second DA 5 of her 8 moves were ‘overcoming the problem’ and one was ‘using the mediator as a resource.’ In other words, although Elaine was being given the same kind mediation during both sessions, her level of reciprocity showed marked improvement.

What is interesting, then, about the NL’s performance at time 2 is that both of them showed signs of development but their relative performance varied widely. Considering Nancy’s static assessments at time 1 and time 2, it is clear that her later performance was substantially improved; indeed, she showed gains similar to those of the ELs. However, she differed from these learners in that her performance during the dynamic assessments changed very little. In both DA1 and 2, Nancy needed substantial interaction with the mediator to overcome problems. The ELs, on the other hand, were much better at addressing problems on their own. Of course, this is not to say that they gained full control over verbal aspect and Nancy did not. The point is that while Nancy improved, she did not make the same gains as did the ELs. The fact that her independent performance improved provides evidence that she had benefited from cooperatively dialoguing with the mediator during DA1, and her verbalizations (discussed in chapter 8)
support the view that she had begun to develop a different understanding of tense and aspect. As will be discussed in chapter 8, this new understanding affected her choice of forms and resulted in improved performance. Her interactions with the mediator during DA2, however, revealed that her new conceptual understanding of aspect continued to coexist with her earlier, rule-based, understanding.

Elaine’s performance at time 2 is also noteworthy. As with Nancy, she showed some signs of improvement but these manifested themselves differently. Her performance during SA2 was actually weaker than in SA1. Nevertheless, comparison of the two DA sessions reveals a change in her interactions with the mediator. Her level of reciprocity at time 2 was somewhat higher than at time 1, and this suggests that she moved closer to being able to control the linguistic features on her own. In Vygotskian terms, control of tense and aspect may now lie within her ZPD. This finding is an important illustration of the insights DA can provide – Elaine’s independent performance suggested a decline in ability, but her interactions with the mediator indicate that development did occur.

6.4 Development: Transcendence of Learning beyond the Assessment Context

Feuerstein (Feuerstein et al. 1988: 65) argues that the kind of development his MLE seeks to promote is qualitatively different from other pedagogical approaches, where terms such as “training” and “coaching” are used to capture the task-specific nature of instruction. Indeed, as the discussion in chapter 2 suggested, the training approach to education has made its way into DA research, most notably in Budoff’s Learning Potential Assessment, where learners are trained to do better on the assessment tasks in between a pre- and post-test. In such approaches, if development occurs, it is a byproduct
of the intensive efforts to promote better test performance. In Feuerstein’s approach, this
relationship is reversed and the learner’s development is foregrounded; improved test
performance is simply an anticipated outcome of that development. However, as
Feuerstein (Feuestein et al. 1988: 65) insists, important information concerning the extent
of development can be obtained by working with learners not only as they complete
familiar tasks but also as they encounter new and more complex problems. In his list of
MLE attributes, described in chapter 2, Feuerstein employs the concept of *transcendence*
to emphasize the point that development extends well beyond any given task.

In the present study, the EL completed two additional tasks after DA2. These two
transfer assessments paralleled the DA sessions in that learners were asked to compose
oral narratives based on a prompt and in collaboration with the mediator; they differed
from the other assessments only in the type of prompt that was used. In the first transfer
task (TR1), a clip from the film *The Pianist* was used, and for the second task (TR2) an
excerpt from Voltaire’s *Candide* was given to the learners. Both of these tasks are
considered to be more difficult than the initial narration. In the case of *The Pianist*, the
light-hearted content of *Nine Months* was replaced with depictions of war and violence.
The scene chosen for the assessment, in which the central character narrowly escapes
capture by German soldiers, portrays a good deal of action but contains almost no
dialogue. The chapter from *Candide* was humorous in nature and contained both
dialogue and action.

Interestingly, as the data below suggest, TR1 was more challenging than TR2 for
all participants. This was not an intentional part of the research design, but all four
learners stated afterwards that it was the most difficult session of all, and one (Sara)
lamented that her focus on vocabulary led her to be careless with her grammatical choices, including her use of the passé composé and the imparfait. This comment is revealing because it suggests that Sara was aware of her use of tense and aspect, but it also indicates that she was unable to simultaneously control more than one type of linguistic form (i.e., vocabulary and verbal aspect). It is possible that a similar explanation accounts for the difficulty the other learners experienced with TR1 relative to TR2. They, too, struggled with items such as ‘tank,’ ‘machine gun,’ ‘bomb,’ ‘explosion,’ and ‘shoot.’ Thus, the task may have been challenging because learners had to maintain their level of functioning while simultaneously focusing their attention on new problems; as discussed below, some of them were able to do this more successfully than others.

The following discussion compares the mediation learners required and their reciprocity during DA2 and both the transfer assessments. Only those interactions concerning tense and aspect are included in the counts given; the mediational and reciprocating moves that dealt with lexical problems have been omitted, since it was control of tense and aspect that learners were ‘transferring’ and not vocabulary. DA2 thus serves as a baseline, as it establishes what the learners were able to do with mediation at time 2. The transfer assessments explore the extent to which they were able to maintain their control of verbal tense and aspect while completing new, more challenging tasks. The mediational and reciprocating moves for all learners are summarized in tables 6.5 and 6.6.
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AMANDA</th>
<th>DONNA</th>
<th>JESS</th>
<th>SARA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DA2</td>
<td>TR1</td>
<td>TR2</td>
<td>DA2</td>
</tr>
<tr>
<td>Mediation</td>
<td>24</td>
<td>11</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Helping move narration along</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accepting response</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Request for repetition</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Request for verification</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Reminder of directions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Request for renarration</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Telling location of error</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Telling nature of error</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Metalinguistic clues</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Translation</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Providing example or illustration</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Offering a choice</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Providing correct response</td>
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<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Providing explanation</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

Table 6.5 Mediational Moves During Second DA and Transfer Assessments
### Table 6.6 Learner Reciprocity During DA2 and Transfer Assessments

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>AMANDA</th>
<th>DONNA</th>
<th>JESS</th>
<th>SARA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DA2</td>
<td>TR1</td>
<td>TR2</td>
<td>DA2</td>
</tr>
<tr>
<td>Reciprocity</td>
<td>10</td>
<td>4</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Unresponsive</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Responds incorrectly</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Requests additional help</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Incorporates feedback</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Overcomes problem</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Offers explanation</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Uses mediator as resource</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Rejects mediator’s assistance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 6.4.1 Improving performance with each assessment

With the exception of Sara (discussed below), the participants showed steady improvement across the three mediated assessments at time 2 with regard to the amount of mediation they required and their level of reciprocity. Jess’s performance is an excellent illustration of this trend. The mediator’s moves, which had numbered 12 in her initial DA session, fell to 5 during DA2, decreased even more during TR1 (3), and during
TR2 no mediation was offered at all. Moreover, with only one exception, all of her reciprocating moves after enrichment were high-level. Of the 6 moves she made during DA2, 5 were ‘overcoming the problem,’ and the 3 moves she made during TR1 included 2 instances of ‘overcoming the problem’ and 1 of ‘using the mediator as a resource;’ no moves were coded for her at all during TR2. Clearly, Jess continued to gain greater control of her performance until, during TR2, she was able to function without intervention from the mediator.

Amanda and Donna displayed similar patterns, although they required some mediation during all the assessments. For example, while Amanda required a good deal of explicit mediation during DA2 (3 ‘metalinguistic clues,’ 3 ‘translations,’ and 2 ‘correct responses’), the number of explicit interventions declined in TR1 (only 1 occurrence of each of the three types mentioned above), and in TR2 she needed only implicit forms of mediation (‘repetition requests’ and ‘verifications’). Her reciprocating moves fell from 10 in DA2 to 4 in each of the transfer assessments, and by TR2 these were mostly high-level (2 instances of ‘overcoming a problem’ and 1 of ‘offering an explanation’). With Donna, the amount and quality of mediational and reciprocating moves changed very little during DA2 and TR1. However, the number of both her moves and the mediator’s decreased in TR2, with mediation becoming more implicit and Donna reciprocating at a higher level. During the final assessment, Donna only required 2 ‘requests for renarration’ and 1 ‘reminder of directions.’ Similarly, there were 3 cases in which she ‘overcame a problem’ and 1 in which she ‘used the mediator as a resource.’

The changes in mediation and reciprocity observed with Amanda, Jess, and Donna suggests that they were continuing to develop over the course of these three
sessions. Amanda demonstrates this pattern clearly. With each assessment she required less mediation than she had during the preceding session, and these became increasingly implicit in nature, while at the same time her reciprocating moves became more high-level. Even Jess, who required very little interaction with the mediator during DA2, became increasingly independent, and completed TR2 without any intervention. It is important to note that this progress was not interrupted by the challenges that the learners reported in TR1. That is, even though they found this task to be the most difficult of all, they did not require more mediation (or more explicit mediation) in order to complete it. In fact, only Donna needed the same amount and quality of mediation during TR1 as she did in DA2. This is a key insight into the learners’ development. They succeeded in maintaining – and even improving – their level of functioning despite the task’s increased demands.

6.4.2 Development through Transcendence

Improvement during the transfer tasks is also evident with Sara, albeit in a slightly different manner. As with the other learners, Sara’s performance on the final assessment, TR2, was largely independent: she needed only three interventions, two of which were implicit (a ‘request for repetition’ and a ‘request for verification’). However, she differed from the other learners in that her performance actually declined somewhat during TR1. Specifically, she required slightly more mediation during TR1 than DA2, and the mediation also became more explicit. In addition, she made the same number of reciprocating moves in both DA2 and TR1, but a higher proportion of these moves (4/8) were at a lower level during TR1 (‘unresponsive,’ ‘incorrect responses,’ and ‘repeating mediator’). As Sara herself commented, she was preoccupied with the lexical challenges
of TR1 and was unable to focus on tense and aspect. This indicates that Sara was not as close to independent performance as the other learners; she was not able to smoothly transfer her abilities to a different context but instead needed increased support to complete TR1. This parallels Brown and Ferrara’s (1985) finding, whose research with children of varying ability levels revealed that in some cases all learners perform equally well on repetitions of the initial assessment task but that differences re-emerge during transfer. Nevertheless, Sara’s performance during TR2 was markedly improved over both DA2 and TR1, and was comparable to the other learners.

A possible explanation for Sara’s improvement at this late stage is that she developed as a result of her struggles during TR1. On this view, TR1 was a critical step in moving control of tense and aspect from Sara’s zone of proximal development to her zone of actual development. The significance of this is that it highlights the instructional potential of mediated assessments. Learners’ opportunities to develop through interaction with the mediator were not limited to the enrichment program but were also an integral part of the assessments. This means that the so-called ‘transfer’ assessments, because they are mediated, are necessarily much more than occasions to show the products of previous learning; they also continue to promote development.

6.5 “Stretching”: Moving Beyond the Target of Intervention

Up to this point, the analysis of the learners’ performance during the assessments has focused on their ability to independently complete the tasks (SA1 and SA2) and on the ways in which they interacted with the mediator (DA1, DA2, TR1, TR2), including the kinds of support they needed and their reciprocity. The discussions have explored changes between time 1 and time 2 in terms of learners’ actual level of development, as
evidenced by their independent performance, as well as their potential future development, which emerged through cooperative dialoguing with the mediator. Learners’ development through the enrichment program can also be argued on the grounds of their own initiatives to extend their learning beyond the specific linguistic features that had been the focus of intervention. Thus, while the mediator’s interactions with the learners focused largely on the présent, the imparfait, and the passé composé, there were cases where learners applied their understanding of the use of verbal tense and aspect in narratives to other, related forms, namely the conditional and the pluperfect. In every case, these forms were introduced into the narrative by the learners, not the mediator. Furthermore, each time the conditional or the pluperfect was used, the mediator intervened to seek an explanation, and the learners’ verbalizations revealed that they were extending to these other forms the ideas that had emerged from their dialogues with the mediator (e.g., the impact of aspect on meaning, creating a timeline to relate events to one another in a narrative, the way tense can be used to establish relationships among these events, etc.).

Interestingly, extending learning beyond the interventions only occurred with the EL. Neither Nancy nor Elaine made use of forms other than the présent, the imparfait, and the passé composé during their static or dynamic sessions at times 1 and 2. A possible explanation for this is that their interactions with the mediator were limited to only two dynamic sessions. As we have already discussed, the two DA sessions were sufficient to produce some development, but the EL’s extension of what they had gained from their interactions with the mediator may represent a different facet of development. Indeed, this may be considered a form of transcendence, not from one task to another but
from the specific issue of selecting the *passé composé* and the *imparfait* to the more
general issue of using verbal forms – tense, aspect, and mood – to create relationships
among events in a narrative. With this in mind, table 6.7 summarizes several interesting
findings regarding the EL’s attempts to “stretch” their learning.

<table>
<thead>
<tr>
<th>Participant</th>
<th>AMANDA</th>
<th>DONNA</th>
<th>JESS</th>
<th>SARA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session</strong></td>
<td>SA2</td>
<td>DA2</td>
<td>DA1</td>
<td>DA2</td>
</tr>
<tr>
<td>Pluperfect</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Correct formation</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Incorrect formation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate use</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inappropriate use</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td>SA2</td>
<td>DA1</td>
<td>TR2</td>
<td>SA2</td>
</tr>
<tr>
<td>Conditional</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Correct formation</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Incorrect formation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Appropriate use</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Inappropriate use</td>
<td>1</td>
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<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 6.7 Learners’ Use of the Pluperfect and the Conditional
It should first be noted that the majority of cases where the conditional and the pluperfect were used occurred during mediated rather than non-mediated sessions. In fact, there were no cases of these forms from any of the learners during SA1, and comparatively few during SA2. This is perhaps reflective of the instructional component of the dynamic sessions. In other words, the dynamic assessments and the enrichment program sought to undo the traditional view of assessment, which recognizes only solo performance. The mediator’s cooperative dialoguing with the learners sought to establish a new orientation to assessment, one that no longer sees collaboration as cheating but which argues that real cheating is withholding mediation, because it deprives learners of an opportunity to develop. The participants were thus encouraged to ask questions and seek help as they worked with the mediator to complete tasks they could not perform on their own. A logical outcome of these interactions is that learners would no longer be as inhibited about taking risks and trying out new forms. The fact that these instances of “stretching” occurred predominantly during the mediated sessions suggests that the learners were more willing to experiment with the language when they knew the mediator was present to catch them if they stumbled.\footnote{It should be noted that these assessments carried no real consequences for the learners, and so to truly understand if their orientation towards assessment had changed one would need to observe them in a test-for-grade context.}

As summarized in the table above, all the ELs used the plus-que-parfait at least once during DA2, and in every case their attempts were appropriate and the forms they produced were correct. Jess is an interesting case because she actually used the pluperfect twice during DA1, prior to the enrichment program. In both instances, the forms were produced correctly but were used in inappropriate functions. Following the
enrichment program, Jess uses the pluperfect 2 additional times, once during DA2 and once during TR1; both times the forms were produced correctly and used appropriately.

With regard to the conditional, this was a surprising finding because it had only been mentioned briefly during the enrichment program. This occurred in the broader context of reporting speech, where the mediator pointed out that the conditional is used to describe a future relative to past events and states (e.g., he said that he would sell the car). The mediator did not provide any further explanation or examples during enrichment, and while the learners had no doubt studied the conditional in their courses, there were no instances of its use prior to or during enrichment. Nevertheless, as can be seen in table 6.7, the conditional was used several times by Amanda and Donna following enrichment. Generally, the learners produced these forms correctly but their use was not always appropriate. For example, Donna used the conditional 5 times in DA2 and 3 times in TR1, but during both assessments 1 occurrence of this form was inappropriate. Amanda correctly produced the conditional once during DA2 and TR1; in the former assessment its use was appropriate but in the latter it was not. At any rate, the importance of learners’ use of the conditional and the pluperfect, regardless of whether they were able to fully control these forms, is that they were stepping back from the narratives and considering the various ways in which they could bring events into discourse, using the linguistic forms that they had discussed explicitly with the mediator (e.g., the passé composé and the imparfait) as well as those that had only been mentioned in passing (e.g., the conditionnel and the plus-que-parfait).
6.6 Learner Self-initiated Revisions

A final point of interest concerns learners’ ability to detect and correct their own mistakes during the assessments. In these instances, the mediator’s contributions were limited to providing feedback after the learner had self-corrected. When coding self-correction it was found that in some cases the learners’ revisions resulted in structures that were more appropriate and correct while at other times they did not. The results of the learners’ attempts to self-correct for verbal tense and aspect during each session are summarized in the following table.

<table>
<thead>
<tr>
<th></th>
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<td>Donna</td>
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<td>2</td>
<td>10</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
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<td>5</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
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<td>0</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
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<td>Elaine</td>
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<td>2</td>
<td>4</td>
<td>2</td>
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<td>8</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>1</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6.8 Learner Self-initiated Revisions

All learners, regardless of whether or not they participated in the enrichment program, made more attempts to self-correct during the dynamic sessions than the static ones. This was true at both times 1 and 2. In some cases, these increases were dramatic, as with Donna who went from 5 attempts in SA1 to 18 in DA1. The increased frequency of self-corrections during the dynamic sessions could be the result of the learners’
shifting orientation to the task. That is, the static assessments required solo performance, and were therefore more like the testing situations familiar to students; the dynamic sessions, with their emphasis on interaction and revision, had a necessarily instructional flavor and encouraged the learners to be more aware of their performance as well as more inclined to make changes *in situ*. In this way, the mediator’s role of helping them detect and correct errors related to tense and aspect was at times appropriated and performed by the learners themselves. Of course, the learners were not always successful at revising their performance, and in some cases their attempts resulted in the production of more errors. This, however, should not be seen as a negative but as an important part of their development. Their self-corrections indicate an increased awareness of, and a willingness to take responsibility for, their performance. Mistakes while self-correcting provide information about the learners’ current abilities and serve as an opportunity for more finely tuned mediation to be offered.

Another interesting finding in these data is that all the learners made more attempts to self-correct during their independent performance at time 2 than they did at time 1. Sara, for example, had three times as many cases of self-initiated revision in her second static assessment (6 in SA2 and 2 in SA1). Jess similarly displayed nearly four times as many cases of self-initiated revision in SA2 (11 v. 3 in SA1). One explanation for this increase over time is that the learners had no doubt become more aware of their use of verbal tense and aspect as a result of their experiences during the mediated assessments and enrichment program. Interestingly, this pattern was found even with the NL, who had only taken part in a single mediated session (DA1). Of course, these two learners made fewer attempts than the EL to self-correct during SA2.
A final surprising finding concerns the transfer assessments. During both transfer assessments, the EL made surprisingly few attempts to self-correct. Indeed, while the number of attempts increased from the static to the dynamic sessions, they dropped off again during the transfer assessments. For example, Jess made 9 attempts during DA2 but only 3 in each of the transfer sessions and Sara’s 7 attempts in DA2 were reduced to 3 in TR1 and only 1 in TR2. Only Donna was relatively consistent in her attempts to self-correct, with 12 occurrences in DA2 and 11 in TR1, although she, too, showed a sharp decline with only 7 self-initiated revisions in TR2. The reason for the decline in self-corrections during the transfer assessments is not clear, although it may be a result of the learners’ increasing control over tense and aspect. As discussed above, the mediator also intervened less frequently during the later assessments, and it was argued that the learners appropriated increased responsibility for their performance during the assessments at time 2. In fact, during TR2 the learners were largely able to perform without mediation. Thus, they may have made fewer attempts to self-correct because verbal tense and aspect no longer posed the same problems as earlier. Additional evidence in support of learner development is presented in the next chapter.

6.7 Conclusion

The analysis presented in this chapter was organized along three lines, each of which examined the extent to which learners were in control of their performance as well as changes in their degree of control over time. Learners’ independent performances were considered in terms of their ability to correctly and appropriately use verbal tense and aspect in their narratives, as this had been the focus of intervention during the dynamic sessions and the enrichment program. Their performances at time 1 (prior to enrichment)
and time 2 (following enrichment) revealed their actual level of development at these two points, that is, what they were able to do without assistance from the mediator. Changes over time in their level of independent functioning indicated development.

It was found that the ELs relied less on the present tense during the second assessment, using instead the more appropriate past tense. In addition, they made substantial gains in how appropriately they used aspect, in many cases doubling and even tripling the percentage of appropriate use. Donna continued to struggle with the PP during SA2, and Amanda had similar problems with the imperfect, but both learners improved dramatically over their initial performances.

The NLs were less uniform in their performance. It had been anticipated that they, too, would improve over time as a result of their interaction with the mediator during DA1 but that their gains would be more modest than those of the ELs. Interestingly, Elaine’s performance on SA2 was weaker than on SA1, a finding possibly attributable to her lack of interaction with the mediator during DA1. However, Nancy’s performance at time 2 was striking because the improvement she showed was similar to that of the ELs. Her verbalizations and dialoguing with the mediator during the DA2 suggest that she had internalized some of the mediator assistance from DA1. This new way of thinking about tense and aspect coexisted with her earlier understanding that was grounded in descriptive rules. As a result, she showed improvement in her ability to control these forms but still relied heavily on support from the mediator to think through her choices, as indicated by her interactions during DA2.

Learners’ collaborations with the mediator during the dynamic sessions provided additional information about their abilities. Here, the analysis rested upon the frequency
of various mediational and reciprocating moves. These moves were arranged so as to highlight the level of explicitness of the mediator’s contributions and the degree to which the learners were taking responsibility for their performance. The mediator-learner interactions were essential to interpreting their zone of proximal development, understood here as how close the learners were to independently controlling tense and aspect in their narratives. Changes in the learners’ interactions with the mediator between times 1 and 2 indicated shifts in their ZPD.

Comparison of the EL’s performances during DA1 and DA2 suggests that in the second assessment they were all better able to control tense and aspect on their own. With Sara and Amanda it was found that these learners required less explicit forms of mediation at time 2 but that the overall number of mediational moves was relatively constant. Donna and Jess, on the other hand, needed both fewer prompts and less explicit mediation. In the case of Jess, her performance during DA2 was largely independent. Furthermore, the EL’s reciprocating moves were at a higher level during DA2, with far more instances of the mediator’s feedback being incorporated and problems overcome.

The NL’s performance during DA2 both showed interesting signs that they, too, had moved in their ZPDs. As already mentioned, Nancy’s independent performance was improved after her initial interaction with the mediator but, unlike the ELs, her interactions – her level of reciprocity and the amount and kind of mediation she elicited – changed very little between times 1 and 2. Elaine, on the other hand, did not show improvement in her independent performance, but comparison of her mediated assessments reveals that she was much more willing to reciprocate at time 2. In other
words, her interactions with the mediator suggest that she had developed even though this was not revealed by her independent performance.

The learners’ interactions during the transfer assessments were analyzed in the same way. These sessions brought to light the degree to which learners were able to maintain their level of functioning when asked to perform different tasks of varying complexity. All the participants found TR1 to be especially challenging, due in part to the task’s specific lexical demands. Nevertheless, three of the ELs were able to complete the task without enhanced mediation than they had required during DA2. Only Sara’s performance declined somewhat during TR1: she required a good deal of support from the mediator in order to successfully ‘transfer’ her abilities to this task. However, all four learners performed relatively independently during TR2. They required very little interaction with the mediator and they demonstrated a high level of reciprocity. In fact one learner, Jess, did not need any assistance at all with tense and aspect during that session. Taken together, the transfer assessments reveal the extent of the learners’ development while also continuing to promote their abilities.

A final point discussed in this chapter that relates to the learners’ development is their initiative to self-correct and to incorporate other linguistic forms into their narratives. The learners were more likely to make self-initiated revisions during the dynamic than the static sessions, which was interpreted as a logical consequence of the instruction-oriented interaction that characterized the mediated assessments. What is interesting is that the learners made more attempts to correct their own errors following the enrichment program and the first DA sessions. This suggests that they were now taking over more responsibility for error identification and correction, which had
previously been handled by the mediator. The next two chapters consider this shift in responsibility, as well as other features of the mediator-learner interactions, through a close reading of the assessment transcripts.
CHAPTER 7– DATA ANALYSIS AND DISCUSSION:
MEDIATING LEARNERS’ PERFORMANCE IN THE ZPD

7.1 Introduction

The present chapter focuses on the mediator’s efforts to co-construct a zone of proximal development with each of the learners during the dynamic and transfer assessments. The analysis maintains the major strands of evidence of development that have already been discussed – change in control over the relevant linguistic structures, change in the mediation provided and in learners’ reciprocating moves, and transcendence of learning beyond the assessment context – and adds a fourth source of information: changes in learners’ conceptual understanding of aspect. The first three types of evidence are discussed in this chapter through presentation of specific instances from the assessments that provide a clear picture of the learners’ contributions to the performance. The issue of conceptual understanding comes from Negueruela’s (2003) research on concept-based language instruction. As explained in chapter 4, this work posits a pedagogical approach that foregoes traditional rule-based instruction in favor of explanations that are theoretically derived and systematically presented to learners. Following Negueruela, the primary source of information regarding how learners understand a given concept is their verbalization. The chapter concludes with a discussion of some of the developments that occurred within the mediator-learner interactions, including instances of learners using concretization of linguistic forms as a technique to selfmediate as well as examples of mediation that were not sensitive to the learner’s ZPD.
7.2 Tracking Learner Development in the ZPD

As described in detail in chapters 2 and 3, working in the ZPD involves offering specific interactions and artifacts to individuals in ways that take account of their maturing abilities. The present discussion examines specific interactions with individual learners and traces how these interactions changed over time. The first set of excerpts deals with cases in which individuals’ abilities did not develop to the point where they no longer needed mediation, but rather reciprocated at a higher level when mediation was offered. Building on Aljaafreh and Lantolf’s (1994) argument that changes over time in the kind of mediation learners require is a sign of development, the present analysis considers the case of one learner, Sara, and suggests that her increased level of reciprocity at time 2 indicates that she is closer to independent performance. The second subsection concerns conceptual changes that occurred in learners’ understanding of verbal aspect through interacting with the mediator, and the effects this has on performance. The final set of excerpts addresses the issue of transcendence, not as transfer from one task to another, but from the linguistic structures under study to other similar structures, highlighting how learners’ new conceptual understandings position them to encounter new material. We begin with a discussion of change over time as documented in the performance of Sara.

7.2.1 Change in learner responsiveness over time

Sara wrestled with aspect and with the formation of the PP and imperfect during the assessments at both times 1 and 2. During both dynamic sessions, her independent performance contained many errors and she required mediator intervention. However, if her abilities at these two points in time are to be understood, it is important to keep in mind the kind of mediation Sara needed as well as her reciprocity. Simply judging her on
the basis of the product of her performance would miss the development that occurred, because although she commits errors in both instances, these errors do not have the same psychological status. In the following excerpt, Sara is struggling to use the verb savoir (to know) during DA1:

1. S: oui et uh il avait l'accident avec Julianne Moore comme ça et Julianne  
   yes and uh he had the accident with Julianne Moore like that and Julianne

2. Moore elle elle sait que il ne elle a sait* que il ne veut pas le bébé  
   Moore she she knows that he she knew that he doesn’t want the baby

3. M: elle a sait, right um there’s something with that verb there

4. S: oui uh, (whispering) I don’t remember any of the formal French right now

5. but um (…)

6. M: well I mean which verb tense would you use there? For elle a sait* que?

7. S: It’s imparfait

8. M: it would be imparfait oh okay

9. S: yeah because it’s an emotion and I know that elle sa saisit would elle a sait*

10. (...) uh um (...) I’ve forgotten

11. M: right well it’s the verb savoir

12. S: savoir right

13. M: so it’s the imperfect of savoir that’s what you’re looking for?

14. S: yes

15. M: savait

16. S: savait

17. M: savait

18. S: c’est s-a-v
In line 2 Sarah first uses savoir in the present tense but then, realizing that she is referencing the past, attempts to self-correct and changes to the passé composé. While she correctly selects and forms the auxiliary a from avoir, she produces the incorrect past participle sait. At this point, M intervenes by first repeating her utterance and then stating that there is a problem with the verb. In fact, there were two problems – Sara had opted for the present perfect (PP) aspect when the imperfect would have been more appropriate, and she incorrectly formed the past participle – but M merely points out the location of the problem. When Sara is unable to respond, M provides a more explicit prompt asking her which aspect she is using, and then asks her to explain her reasoning. Surprisingly, Sara states that she is using the imparfait and not the passé composé and explains that the former is the appropriate aspect because she is describing how the character was feeling. Thus it appears that despite her difficulty in producing the form, Sara has some understanding of the ways in which the two aspects are often used, even if this understanding is based on lists of rules rather than a conceptual grasp of aspect.

Despite M’s original appraisal of the problem, Sara was in fact trying to use the appropriate aspect. When this becomes clear to M in line 8, he shifts his focus to the correct formation of the imparfait of savoir. First in line 11, he names the infinitive, which contains the appropriate imperfect stem. Sara is still unable to respond and so M makes another request for clarification, evoking both the infinitive (savoir) and the aspect
(imparfait) in line 13. When this also fails to move Sara any closer to the correct form, M provides it. Interestingly, Sara not only repeats the appropriate form, savait, but also spells both the stem and the correct third person singular ending. The fact that she spelled the form is noteworthy for two reasons. First, it indicates that she was at least able to recognize the imperfect form even if she was not yet able to produce it independently. In other words, she does have some knowledge of how the imperfect is formed in French. Moreover, her desire to spell the verb is striking because the task is oral, not written; the spelling should not matter. This would seem to be an example of the impact of written language on speaking. This point is returned to below in the discussion of concretization of linguistic forms as a means of self-mediation.

In the same turn where Sara incorporates savait into her narrative, she also produces “veut,” a present tense form of the verb vouloir (to want). M intervenes again prompting her to render the verb in the past as an imperfect rather than the present:

22. S: … elle savait que Hugh Grant il ne veut pas elle ne il ne veut pas un
   …she knew that Hugh Grant he doesn’t want she he doesn’t want a

23. enfant
   baby

24. M: just to interrupt one more time—

25. S: that’s fine

26. M: I know I’m focusing a lot on verbs but you said that Hugh Grant ne veut

27. pas? Um

28. S: (to self) he did not want (aloud) yeah he did not want is passé that’s true

29. M: okay

30. S: I know (laughs) I know when I’m wrong [if I just think about it (laughing)
31. M: that’s good that’s good]

32. S: Julianne Moore um elle savait que il n’a veut* pas
    Julianne Moore um she knew that he didn’t want

33. M: actually it’s the same kind of ending except that it’s the verb vouloir

34. right?

35. S: voulait il ne voulait pas mais uh elle était très um elle était très um sad (…)
    wanted he didn’t want but uh she was very um she was very um sad (…)

This time, M simply repeats the inappropriate structure in lines 26 and 27, and Sara responds by explaining what she is trying to say in English. This response helps her to realize that she should be using the past rather than the present tense. She enters the narrative again and attempts to self-correct, repeating her last utterance with savait, but this time changing veut from the present to the past. The result is the erroneous form a veut in line 32, which clearly resembles her earlier formation a sait (line 9), and which she stated was supposed to be the imperfect. The rule Sara seems to be following for the formation of the imperfect is to pre-pose the auxiliary in combination with the third person singular present tense form of the verb rather than the past participle. In other words, Sara has at least some understanding of how to use aspect to express certain meanings (i.e., she did not try to use the PP for either savoir or vouloir) but she is unable to produce the correct forms of the verbs in the imperfect.

Attempting to draw a connection to their negotiation of the verb savoir only a moment earlier, M (line 33) provides her with a fairly explicit clue regarding how she should form the imperfect of vouloir – he names the infinitive and states that it takes the same regular imperfect ending. Sara then produces the correct voulait and continues her narrative. In the same line (35) she also uses the imperfect of être (to be). This episode
demonstrates that prior to the enrichment program, Sara’s knowledge of imperfect aspect was just beginning to ripen but she was very far from fully controlling it. Specifically, M noted that Sara remembered that the imperfect is often linked to descriptions of emotion and that she was able to recognize the correct form when it was provided but she continued to either avoid the option or to form it incorrectly throughout the remainder of the session. This information guided M’s interactions with Sara throughout the enrichment program, and unlike the other participants, much time was devoted to reviewing the formation of the *imparfait*.

Upon repeating the task six weeks later during DA2, Sara once again attempted to produce the imperfect of *savoir*. This time, she actually begins by using another verb, *comprendre* (to understand), in the present tense. When M asks her to repeat what she said she switches to *savoir* but, as before, uses the present tense:

36. S: enceinte! Enceinté, uh Samuel Rebecca a dit qu’elle ne comprend pas pregnant! Pregnant, uh Samuel Rebecca said that she doesn’t understand

37. pourquoi il était enceinte mais la why he was pregnant but the

38. M: Rebecca a dit? Sorry

39. S: Rebecca a dit que elle ne sss (...) sa, elle ne sait pas she did not know elle Rebecca said that she doesn’t know she

40. ne sait pas pourquoi does not know why

41. M: Well actually elle ne sait pas is present tense

42. S: it’s present tense which is wrong

43. M: because you said she did not know so that would be past tense

44. S: the past tense elle ne su pas* that’s wrong (...)

*
45. M: were you looking for imparfait or passé composé?

46. S: (...) it’s imparfait

47. M: okay so you would use the form of savoir—

48. S: elle ne savait pas
    she didn’t know

49. M: voilà

50. S: I forgot it’s savoir, elle ne savait pas pourquoi il il était dans sa situation
    she didn’t know why he he was in his situation

51. aussi mais elle était…
    also but she was…

In response to M’s request that she repeat her utterance, Sara switches from the present of comprendre to the present of savoir, and uses English to think through how she wants to portray the scene, ultimately arriving at the form “elle ne sait pas pourquoi” in lines 39 and 40. Of course, using the English “she did not know” is only partially successful, as it helps her to select the verb savoir, the subject elle, and the negative particles, but she slips from the past tense (in English) into the present tense (in French). This time, M points out that she is using one tense in English and another in French, and Sara’s remark in line 42 indicates that she is aware of the switch and that she also knows that her use of the present tense in French is incorrect. This awareness already says a good deal about Sara’s level of development – she understands which forms she should use even if she is not able to produce them on her own, a finding similar to that observed by Antòn (2003) in her work with advanced learners of Spanish.

In line 44, Sara tries to render savoir in the past tense but instantly recognizes that the form she produced, su, is not correct. In this case, her recognition of the error is prompted by her externalization of the form rather than by the mediator. That is, her own
output signals the mistake to her. As in the earlier session, M decides to move to a much more explicit prompt, and so he asks which aspect she wants to use and then reminds her that the infinitive is *savoir*. Unlike before however, this is sufficient for Sara to produce the correct form, *savait* in line 48. In fact, Sara produces the entire utterance, including the subject pronoun and the negative particles. The simple clue of reminding her of the infinitive form of the verb was sufficient, as she admits in line 50 that she forgot it was *savoir*.

In neither the DA1 nor DA2 did Sara exhibit mastery of French aspect. However, comparing the difference in her performance narrating the same video clip and struggling with the same structures suggests that she was much closer to independent control in the second session than in the first. Indeed, in DA1 M had to provide and repeat the correct form while Sara checked to make sure she understood the spelling of the stem and the ending. In DA2 she knew which aspect she wanted to use but needed to be reminded of the infinitive form of the verb; she was capable of forming the imperfect herself. In Vygotskian terms, Sara’s control of aspect had not yet fully matured but had qualitatively changed – or ripened – through the enrichment program, and this development should not be discounted. In a static assessment this type of insight into development would be much less likely to emerge.

A similar example also comes from Sara and involves the verb *croire* (to believe). In the following excerpt from DA1, she is struggling with both the selection and formation of an appropriate verb form.

52. S: elle est enceinte elle est oh d’accord, Julianne Moore elle est enceinte de la she is pregnant she is oh okay, Julianne Moore she is pregnant with the

53. bébé (laughs) de la bébé de Hugh Grant mais Hugh Grant ne croit pas pour—
baby (laughs) with Hugh Grant’s baby but Hugh Grant does not believe for

54. M: but in the past

55. S: n’a croit pas*, n’a croyé pas*
didn’t believe, didn’t believe

56. M: yeah um (...)

57. S: uh j’oublie
uh I forget

58. M: right because it was more a description [of him right?]

59. S: oui] alors il est imparfait
yes so it is imperfect

60. M: voilà voilà so you would say?

61. S: je sais je sais mais je n’ai pas le used imparfait pour beaucoup de fois alors (?)
I know I know but I haven’t used the imperfect for a long time so

62. (...)

63. M: il ne croyait pas
he didn’t believe

64. S: il ne croyait pas et uh um il fait l’accident de son voiture
he didn’t believe and uh um he has a car accident

In line 53 Sara initially uses the verb *croire* in the present tense, and thus M begins the intervention by reminding her that her narrative should be in the past in line 54. In response, Sara tries to change the verb *croire* to the *passé composé* but is unable to form the correct past participle (*cru*) and also fails to mark negation appropriately (with the particle *pas* immediately following the auxiliary *a*). In line 58, rather than addressing the errors with the PP, M offers a hint to indicate that the imperfect would be more appropriate. Given that this interaction occurred prior to the enrichment program, M opted to point out that the use of *croire* in this instance can be thought of as a description
of what Samuel’s character was feeling, and Sara recognizes this as a case in which the
imparfait is often used. Nevertheless, in line 61, she admits that she does not know how
to form the imperfect of croire, and M eventually supplies her with the correct form.

Approximately six weeks later, during DA2, the verb croire appears once again:

65. S: enceinte, elle était enceinte avec le bébé de Samuel et Samuel n’a pas
pregnant, she was pregnant with Samuel’s baby and Samuel didn’t

66. croyé* et pose pour le moment il a um (...)  
believe and asks for the moment he um

67. M: oui, le verbe there’s something there with the verb, you just used the

68. S: imparfait (?)

69. M: what was it?

70. S: croyé*

71. M: n’a pas croyé* using the

72. S: n’a pas la croyé* did not believe at that time

73. M: using passé composé?

74. S: yes

75. M: right so then it’s not n’a pas croyé but n’a pas (...) do you remember? it’s

76. irregular

77. S: croit?

78. M: uh

79. S: it’s cru

80. M: cru

81. S: see I remember that

82. M: exactly n’a pas cru
83. S: yeah ne l’a pas cru did not believe it ne l’a pas cru,

In comparison with DA1, Sara’s performance here is markedly different, although still not fully accurate. First, she uses the verb in the past, but as in the earlier session, she has difficulty forming the past participle of *croire*. This time, however, the rest of the structure is correct. When M draws her attention to the verb, she mistakenly concludes that the problem lies in her choice of aspect and initially switches to the imperfect. At this point, in line 71, M repeats her utterance, which is sufficient for Sara to recognize that she had used the PP. In line 72 she states in English “did not believe at that time,” affirming that her selection of the PP was motivated by the meaning she wished to express. M actually had the imperfect in mind, but upon hearing Sara’s thoughts in English decided to accept her choice of the *passé composé*. In lines 75 and 76 M repeats Sara’s utterance again, drawing her attention to the past participle and reminding her that it is irregular. Unlike in DA1, Sara recalls the irregular form *cru*, and in fact even correctly inserts the direct object pronoun *l’* (it) into her revised utterance.

7.2.2 A conceptual shift in understanding over time

As mentioned earlier, Negueruela’s (2003) work on concept-based language instruction with L2 learners of Spanish suggests that development can manifest itself not only in learners’ control over linguistic forms in spontaneous performance but also in their verbalizations about the forms. Therefore, in addition to tracking changes in the appropriateness of learners’ use of tense and aspect, attention was also given to the learners’ understanding of the semantic consequences of choosing one form over the other. These insights were gained in some cases through the comments the participants spontaneously made as they thought through what they wanted to say, and in other cases
they emerged when the mediator interrupted to seek clarification of the learner’s intended
meaning. An excellent illustration of this kind of change over time is found in Jess’s
remarks as she wrestled with aspect during DA1 and 2. In the following excerpt from
DA1, Jess oscillates between using the passé composé, which in this case would be more
appropriate, and the imparfait, and she settles on the latter:

84. J: okay, et Hugh Grant il a il a (...) Oh et son ami il a dit que qu’elle était
and Hugh Grant he he oh and his friend he said that she was

85. comme une, une insecte une insecte qui mangeait le mate après après le
like a, an insect an insect that ate the mate after after

86. sexe? Et uh et Hugh Grant, ils parlaient plus sur ce sujet et puis Hugh Grant
sex? And uh and Hugh Grant, they were speaking more about this and then
Hugh Grant

87. a vu a à son petite amie*
saw his girlfriend

88. M: il a vu son petite amie?
he saw his girlfriend?

89. J: oui

90. M: oh right um but it’s feminine

91. J: (…) sa?
his?

92. M: sa petite amie
his girlfriend

93. J: sa petite amie (laughs) oui il a vu sa petite amie et il a, elle a elle a changé
his girlfriend yes he saw his girlfriend and he she she changed

94. elle changeait en un en une en cette insecte
she was changing into an insect

95. M: ah right okay okay

96. J: c’est tout (laughs)
that’s all

This occurred at the very end of the session, and M chose not to intervene again to discuss Jess’s use of the verb *changer* (to change).

In contrast, Jess’s narration of the same scene following the enrichment program proceeded quite differently. In DA2, she appropriately used the *imparfait* and the *passé composé* to portray different aspects of the same notion (a woman being like a Praying Mantis), and, importantly, she was able to offer a reasoned explanation for her choices that reveal signs of a more conceptual understanding. She first produces the following:

97. J: …et Sean il il explique il a expliqué uh, cette cette chose à Samuel et il il a déclaré qu’elle était comme une insecte
and Sean he he explains he explained uh, this this thing to Samuel and he declared that she was like an insect
(M and J laugh)

98. elle était une mantis et Samuel il avait peur de Rebecca que et il parce she was a mantis and Samuel was afraid of Rebecca that and he

99. qu’elle était comme une mantis maintenant
because she was like a mantis now
(M and J laugh)

100. il a regardé à Rebecca et elle est devenue une insecte
he looked at Rebecca and she became an insect

M then intervenes to probe Jess’s choice of the *passé composé* with the verb *devenir* (to become), which itself was perhaps a more appropriate lexical choice than the cognate *changer* (to change) that she used earlier. In particular, M contrasts this structure with two similar ones involving *être* (to be) in the *imparfait* (one of which she produced in the
same utterance as the verb *devenir*. Jess begins by considering her use of *être* in the imperfect:

102. J: …insecte okay because she was like an insecte it was more a description

103. of her rather than I did say il a regardé à Rebecca et elle est devenue une he looked at Rebecca and she became an insect

104. insecte insect

105. M: true! Yeah yeah using passé composé with devenir because—

106. J: and I said Christine était comme un insecte Christine was like an insect

107. M: oh okay that’s what it was

108. J: and I said that because—

109. M: so those are two two different things because Christine était un insecte Christine was an insect

110. but um [Rebecca est devenue insecte right Rebecca became an insect

111. J: Christine est (…) Rebecca right

112. M: using imparfait for the one and passé composé for the other because?

113. J: oh! It’s a description of Christine who’s like in this situation so we don’t ever meet her we just get a description but Rebecca all of a sudden becomes this same thing so it’s like it’s an actual event in the movie she becomes a praying mantis

114. M: okay okay

115. J: so that would have been passé compose

Later in the same session after Jess had completed her narrative, M asked her about some of the structures she had produced:
119. M: A couple of things I wanted ask about was in the very very beginning
120. right how did you I just wanted to see that I got it right how did you start off
121. the uh the first thing the scene?
122. J: I said (...) I said like ils ont conduisé* (...) they drove
123. M: okay using right ils ont conduisé*—
124. J: conduit
125. M: okay the passé composé ils ont conduit
126. J: ils ont conduit they drove
127. M: and using passé composé because?
128. J: um, because it’s wrong
   (both J and M laugh)
129. J: I would have said ils ils conduisaient they they were driving
130. M: ils conduisaient because? they were driving
131. J: la voiture de Samuel um, because they were driving it was like the overall Samuel’s car um,
132. scene
133. M: okay
134. J: we didn’t know when it started
135. M: okay

Jess initially uses the verb conduire (to drive) in the PP but incorrectly produces the past participle. M does not correct her but simply repeats this form. Upon hearing the incorrect structure, Jess recognizes the error herself and supplies the correct past
participle. M’s repetition was the only mediation Jess required to correct her mistake. Then, in line 127 M questions her use of the PP, and Jess acknowledges that this, too, was incorrect. Of course, M regularly sought explanations from the learners about their reasoning. In this case, the result was not an explanation but the realization of a mistake; it seems that Jess merely needed a moment to reconsider her choice of aspect. She switches to the imperfect of conduire, correctly produces the third person form of the verb, and offers an explanation as to why this is appropriate in lines 131, 132, and 134.

A related example involves Amanda’s understanding of tense and aspect, although in this case a crucial part of her development occurred after the completion of the enrichment program and during DA2. By this point, Amanda had studied the tense-aspect relationship from a more theoretical perspective during her enrichment sessions with the mediator. While she had clearly benefited from the program (SA1 and 2 document her improved performance), she continued to have difficulties selecting the aspect that would best allow her to communicate her ideas. For example, the following occurred early in DA2 when M asked Amanda to begin her narration again:

136. M: uh from the beginning

137. A: Samuel et Rebecca se sont conduit* chez Sean—
   drove themselves to Sean’s—

138. M: so using the passé composé?

139. A: passé composé

140. M: because?

141. A: because driving somewhere has a specific beginning and end point? so

142. they have a destination so there is an end point
M’s request that Amanda begin again was due to the several mistakes she made with aspect during her first attempt. Upon renarration, she again used the PP with the verb *conduire* (to drive), and her explanation in lines 141 and 142 reveals that she is attempting to use the conceptual analysis she had studied during the enrichment program but she does not seem to have a fully developed understanding of aspect. Specifically, she does not yet realize that it is not the identification of the actual beginning or end of an event or state that defines aspect and determines which form is appropriate but the temporal perspective one wishes to impart. It appears that she has a partial understanding of aspect that is coexisting with her previous rule-based understanding: driving somewhere is an event that has a beginning and an ending, and therefore she selects the PP. This does not convey the meaning she is trying to express, but she is in fact limited by her understanding of the language – the language is controlling her construction of the narrative rather than being controlled by her as she tells the story.

Nevertheless, her history of cooperatively dialoguing with M during DA1 and the enrichment program brought her to a point where she was able to make a rapid gain following a discussion of aspect that took place later in this session. Amanda continued her narration and, after another instance of selecting inappropriate aspect, M interrupted to question her choice. During this interaction, M and the learner came to a more detailed understanding of how aspectual options create meaning. Amanda had produced the construction “pendant Sean a parlé Samuel a regardé Rebecca” (while Sean spoke Samuel looked at Rebecca), using the PP rather than the imperfect. While renarrating the scene, Amanda states that the *passé composé* would have been more appropriate for the verb *parler*, yielding “pendant que Sean parlait Samuel a regardé Rebecca” (while Sean...
was speaking Samuel looked at Rebecca). However, she still seems uncertain and replies that it is not always clear to her how to decide on appropriate aspect marking. M then offers the following reminder:

143. M: okay okay because it’s not whether or not the thing has an ending as
144. much as is that what you’re emphasizing is that how you want to talk about it
145. A: okay that’s what still gets me that would probably be it
146. M: is?
147. A: that (...) the question of emphasizing based on the tense
148. M: yeah using one tense to emphasize one part one aspect yeah yeah
149. A: and that’s really something that I have to think about it so if I don’t I mix
150. it up
151. M: yeah yeah okay

As Amanda begins again, it becomes clear that the verb regarder should also be in the imperfect, and although she states in English that it “should be emphasized what he was doing while Sean was talking,” she continues to mark the verb for the PP. M intervenes again with the following explanation:

152. M: okay because you see in English the difference would be like so while
153. Sean was talking Samuel looked at Rebecca as in the passé composé whereas
154. while he was talking Samuel was looking at Rebecca in the imparfait
155. right...if you’re using the imparfait he was looking at her you’re not really
156. talking about beginning or ending you’re just saying he was looking at her
157. and that was it, do you see what I mean?
158. A: yeah
Here M points out the difference in meaning in English between the two aspects and explicitly explains the effect of using one over the other. What is of interest is that Amanda drew on this discussion as she continued her narration during that session; as a result her understanding of how aspect functions in French seemed clearer. For example, upon completing the task, M asked her to renarrate the first part of the clip:

159. M: …could you just do the very very beginning of the scene again?
160. A: sure, ils se se conduisaient* et Samuel parlait de ses opinions de des parents et de leurs responsabilités des enfants
they were driving themselves and Samuel was talking about his opinions of of parents and their responsibilities of children
161. M: yeah that’s good just a little more
162. A: et pendant pendant il parlait Rebecca a dit oui oui et enfin um il ou elle a annoncé qu’elle était enceinte et Samuel a crié quoi et il a perdu contrôle
and while while he was talking Rebecca said yeah yeah and finally um he or she announced that she was pregnant and Samuel screamed what and he lost control
163. M: yeah okay okay now in that one you started off using the imparfait with the verbs conduire and parler because?
164. A: because thinking about what we just talked about it was while he was driving and then the scene they were driving he was talking and then she said
165. that she was pregnant
166. Her control of aspect is excellent during this attempt, and when questioned by M, she references the earlier discussion and provides an English translation that matches her French constructions. Moreover, this improved understanding carried over to the transfer tasks. Two weeks later, during TR2, M questioned her choice of aspect and Amanda offered a reasoned explanation:
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170. A: (also laughing) peut-être pour lui il croyait tout que Pangloss lui a disait*  
maybe for him he believed everything that Pangloss told him

171. pendant ses lectures  
during his lectures

172. M: il croyait tout ce que Pangloss?  
he believed everything that Pangloss

uh said? Spoke? Discussed? During his lectures

174. M: lui a dit ou tout ce dont Pangloss a parlé ou parlait de something so it  
told him or everything about which Pangloss spoke or would speak

175. would become dont ce dont Pangloss a parlé ou a discuté so you're using  
about which Pangloss spoke or discussed

176. passé composé?

177. A: oui pendant ce lecture où ils se sont discuté* de peut-être cette (…) cette  
yes during this lecture where they discussed maybe this this

178. session particulier  
particular session

179. M: okay ce sujet par exemple  
okay this subject for example

180. A: oui ce sujet spécifique et-yes this specific subject and-

181. M: now earlier sorry I just heard you say earlier when you introduced

182. Pangloss you said that Candide croyait tout ce que Pangloss disait using uh  
believed everything that Pangloss would say

183. imparfait now this is almost the same structure because here you're saying

184. Candide croyait tout ce que Pangloss lui a dit um I was just wondering if that  
believed everything that Pangloss told him

185. was like if you're yeah what do you think?

186. A: le premier c'est pour en général dans tous les leçons tous les sujets et le  
the first it’s for in general all the lessons all the subjects and the
187. deuxième c'est pour le sujet spécifique  
second that’s for the specific subject

188. M: oh okay ce sujet-là okay

189. A: ce sujet oui la session que le livre a présenté quand Cunégonde entrait et  
this subject yes the session that the book presented when Cunégonde was

190. écoutait à Pangloss  
entering and listening to Pangloss

Amanda sees a distinction between using the verb *dire* to describe what Pangloss would  
say or always said, and using that same verb to explain what he said on a particular  
ocasion. Her improved control over aspect and the conceptually more sophisticated  
nature of her explanations indicate that her understanding developed through not only the  
enrichment program but particularly through her interaction with M during DA2.

7.2.3 Extending learning beyond the intervention

During DA1, Amanda generally was able to form the *imparfait* and the *passé composé* correctly. At one point, M was impressed by several of her constructions  
involving aspect, and when she attempted to describe something that had happened at an  
earlier point in the narrative, M seized the opportunity to explore her comfort with the  
*plus-que-parfait*, that is, past perfect. Use of the past perfect requires a shift in  
orientation since it describes events that occurred at a point in the past prior to the  
reference point, which itself is in the past rather than the present. In line 191, Amanda  
misses an appropriate opportunity to use the verb *finir* in the *plus-que-parfait*, choosing  
the *passé composé* instead:

191. A: les deux se sont en colère*, parce qu’ils n’ont pas fini leur discu argument  
the two are angry because they didn’t finish their discu argument
et uh

M: actually they hadn’t finished their discussion right because it kind of takes place before (…) so they arrived in the past but they hadn’t finished their discussion at an earlier time in the past

A: ils ne finissions? Or uh finissent? they were finishing? Or uh finish?

M: actually it’s more with the auxillary verb that you see the change

A: oh se (...) s’était? S’était

M: almost almost right (...) except you’re using the other verb the other auxillary

A: uh, right (...) (looks confused)

M: you were using avoir with uh uh finir right?

A: oui uh ils n’avaient pas fini yes uh they hadn’t finished

M: right exactly

M begins by pointing out that the discussion to which Amanda is referring preceded the characters’ arrival. This does not provoke a response, and so after a slight pause M becomes more explicit, actually providing the English equivalent of the plus-que-parfait structure in line 194, “they hadn’t finished.” Although M has not specifically named the plus-que-parfait as the form she should use, Amanda recognizes that her earlier construction “ils n’ont pas fini” does not convey the desired meaning. In line 196 she
first switches to the *imparfait* and then to the *présent*. In lines 197 through 202 M offers increasingly explicit guidance, first focusing her attention on the auxiliary and then guiding her to select the appropriate verb. Ultimately, it is Amanda and not M who produces the correct form in line 203.

Although Amanda required prompting to produce the form in her narrative, the interaction revealed that she did in fact have some understanding of the *plus-que-parfait*. Once her attention was focused on the auxiliary verb, Amanda was able to use the appropriate morphological marking (line 198), and after she was prompted to switch from *être* to *avoir* she managed to combine the elements – the subject pronoun, the auxiliary, the past participle, and the negative – to produce the correct structure in line 203, “ils n’avaient pas fini.” Thus, Amanda was able to use her knowledge of the *passé composé* and the *imparfait* to correctly arrive at the *plus-que-parfait* structure that she needed. However, we cannot claim that she had complete understanding of how to use the *plus-que-parfait*. There were no other occurrences of this form during her initial DA and it is not clear whether Amanda saw its connection to aspect, the other past tenses, and the relationships among events in a past-tense narrative. Indeed, it was noted that Amanda appeared capable of correctly marking the auxiliary verb and properly organizing the elements of the structure but that areas in need of attention included the selection of the correct auxiliary and the way the imperfect and perfect forms can be used to situate actions in the past and to create relationships among various events in the narrative.

The next example, which is taken from Sara’s DA2, also examines the use of the past perfect and it addresses this issue of tense and meaning more clearly. At one point during the session, M interrupts Sara to ask about her choice of aspect as she was
describing what Rebecca and Samuel were doing when they had their car accident. M asks Sara specifically about her choice of the passé composé for the verb parler (to speak):

205. S: … il a parlé de la situation wait so they were speaking about the he spoke about the situation

206. pregnancy is that what I said?

207. M: uh yeah

208. S: ils (…)

209. M: ils parlaient they were speaking

210. S: (...) when something happened, you know I see plus-que-parfait being

211. used in this

212. M: plus-que-parfait?

213. S: because they were speaking about this when she said this, well I think

214. M: where would plus-que-parfait fit in? How’s that?

215. S: before she said this this had happened

216. M: like you said—

217. S: they were talking about something when she said this or or before she said

218. this this had happened

219. M: oh, like they had had an accident?

220. S: they had had an accident before they had a conversation before they discussed this but I think what they’re talking about a certain situation at that

221. moment yeah it should be imparfait there as well

222. M: okay, because remember a lot of it has to do with your timeline and how
When Sara hesitates to change her choice of the passé composé for the verb parler, M supplies the correct form in the imperfect in line 209. However, Sara does not accept this answer. In line 210, she is thinking her way through how she wants to portray the action in English, and arrives at the possibility of using the plus-que-parfait. In other words, she considers the possibility of altering the way in which she talked about the events in the story, and she is aware of the changes she would need to make to maintain the appropriate sequencing of events in the story. Her comments suggest that she has internalized to some degree how tense and aspect can be used to talk about events from various points of reference. This is especially clear in lines 213 through 218 as Sara considers, in English, different ways of presenting the events. Interestingly, she actually carries M along with her, as he had not considered describing the events of the story in this way. While Sara ultimately decides that M’s suggestion of the imperfect most appropriately fits how she wants to describe the action, her consideration of the plus-que-parfait as an alternative is quite revealing of her understanding of the past tense-aspect relationship. Her understanding transcends her study of the imperfect and the passé compose. At this point, she is no longer searching for the ‘correct answer.’ Instead, she sees that events can be talked about in multiple ways, depending on both the point of reference one selects and the aspect of the event one wishes to emphasize. There is no evidence of this kind of thinking in Sara’s earlier assessments.

A final illustration of participants taking learning beyond the specific structures under study occurred with Jess, during TR1 and involved the construction of the passive
voice in French. Jess is describing events from the film *The Pianist* and wants to state that German soldiers were killed. Rather than placing an agent in her construction “who kills the soldiers,” Jess tries to use the passive voice with the verb *être* (to be):

226. J: [to self] ils étaient how do you say killed? they were

227. M: killed? Tué

228. J: tués par des coups de fusil aussi killed by gunshots also

229. M: using the plus-que-parfait?

230. J: uh what is it? La voix passive?

231. M: oh okay right you can use the voix passive but you’re using which verb tense though?

233. J: um imparfait

234. M: instead of passé composé

235. J: …yeah

236. M: to say that they were they were killed

237. J: uh huh

238. M: okay and how come?

239. J: I don’t know actually should be saying ils […]…because I have to say was otherwise they would be killing someone else

241. M: ils ont tué would be they killed but you want to say they were killed

242. J: right par quelqu’un by someone

243. M: so you need another verb in there
244. J: ils étaient tués ils avaient tué
   they were killed they had killed

245. M: well then using plus-que-parfait they had killed?

246. J: no how would I say they were killed? Ils étaient tués

247. M: étaient? So you’re using être but être can be used in the imparfait or the
   passé composé right so you could use the passé composé—

249. J: ils ont été tués
   they were killed

250. M: ils ont été tués so it’s the passé composé of être and tué as an adjective
   they were killed

251. J: oui ça marche
   yes that works

252. M: okay makes sense?

253. J: oui, ils ont été tués par des coups des fusil
   yes, they were killed by gunshots

At first, M mistakenly assumes that Jess is attempting to produce the plus-que-parfait, but Jess is quick to assert that she is in fact using the passive voice. In lines 229–238 M provides a series of prompts, first checking which tense Jess has selected, then offering a translation of the phrase in English, and finally requesting an explanation of her choice. In lines 239 and 240, Jess reveals that her use of the imperfect was based on the fact that it is often translated into English using the verb “was,” and Jess understands that using the ‘to be’ verb is necessary in order to produce the passive voice. M responds by providing the active voice construction in French and English and the passive voice construction in French, attempting to draw Jess’s attention to the use of the passé composé in the active voice. Jess tries again but reproduces the incorrect form in line
Finally, in lines 247 and 248, M resorts to pointing out that être can be used in either the PP or the imperfect, and this leads Jess to produce the correct form.

In this case, the learner’s attempt to extend her understanding of tense and aspect to the passive voice is not successful. While Jess by this point had moved beyond rules of thumb in use of aspect, this less sophisticated understanding resurfaced when she attempted to use the passive voice. Her account of the event in English did not match her insistence upon using the imperfect of être. Indeed, she needed to be explicitly reminded that the ‘to be’ verb can be marked for either aspect before she was able to produce the correct structure.

7.3 Development of Mediator-Learner Interactions

Thus far, the analysis of mediator-learner interactions has focused on the kinds of mediation that were provided and the level of learner reciprocity. However, important developments also occurred with regard to how the participants viewed the DA sessions as well as how both participants interpreted their respective roles. Two closely related kinds of development can be identified: 1) changes in the learners’ understanding of the DA sessions as learning opportunities rather than as testing situations; and 2) the emergence of self-mediation techniques as students endeavored to learn during the assessments. In addition, there were also instances when the interactions between a learner and the mediator were problematic in that they were not adequately focused on development. As discussed below, these interactions were characterized either by a learner’s over-reliance on the mediator or by the mediator providing mediation that was not appropriately attuned to the problem. These “interactions gone awry” are included in this section because they, too, are an important part of the range of exchanges that
occurred during the DA sessions and that are not easily captured by the inventories of mediational and reciprocating moves outlined in chapter 5.

7.3.1 Shift in learner’s orientation to the assessment

In the previous chapter it was shown that during Jess’s DA1 she did not attempt to elicit further assistance from M after he had begun an intervention nor was Jess able to use M as a resource when she encountered problems. This is hardly surprising since the initial session was described to her as a diagnostic assessment, and although she was told that she could ask M for assistance this certainly ran counter to her prior assessment experiences. Her orientation to DA2 was markedly different. After having participated in the enrichment program Jess appears to have embraced the more collaborative nature of DA. For example, at one point in DA2 Jess attempts to express the idea that one character had asked another to be more positive:

254. J: …Samuel il est il avait choqué* et il a fait un accident, uh alors (laughs) et he is he had shocked and he had an accident, uh so and

255. puis Rebecca a dit uh je divine que tu ne veux pas le bébé then Rebecca said uh I guess that you do not want the baby

256. M: actually could you repeat that last part after the accident?

257. J: après l’accident? Elle a dit je je divine que tu ne wait que tu ne veux pas le after the accident? She said I I guess that you wait that you do not want the

258. bébé (...) okay et elle lui a demandé qu’il était* qu’il être* plus positif? Est- baby and she asked him that he was uh that he to be more positive?

259. ce que ça marche? does that work?

260. M: uh elle lui a demandé? she asked him?

261. J: elle lui a demandé s’il peut wait s’il pourrait pouvait être plus positif she asked him if he can wait if he would be able could be more positive
In lines 258 and 259, Jess turns to M for help. M’s only response is to repeat the first part of Jess’s utterance immediately preceding the error, thereby turning responsibility for the correction over to Jess, who does indeed manage to self-correct. Some doubt remains after she has revised the structure by introducing a subordinate clause and using the verb pouvoir. She frames her revised utterance as a question and thus M tries to elicit from Jess the reason for her hesitation but at that point she continued with her narrative.

Of course, it should be pointed out that Jess needed minimal assistance from M to arrive at an appropriate structure; his presence as an interlocutor was sufficient for her to self-correct. Nevertheless, the fact that she turned to M for help suggests a change in how she approached the DA session. A request for help or confirmation of a response was no longer illicit but became a legitimate part of the procedure. It not only permitted her to perform as well as possible, but it also was an important part of helping her improve her abilities.

Very much related to Jess’s shift in orientation toward DA is her use of specific techniques to self-mediate. The significance of such moves on the part of the learner is that it again indicates a reorientation to the procedures – in traditional approaches to assessment, once an incorrect form has been produced, there is nothing the learner can do and the performance moves on. In DA, errors in themselves have far less importance than the underlying sources of the errors since only the latter have explanatory power.
Furthermore, in DA mediation plays the crucial role not of simply documenting that an error has occurred but, rather, it serves to highlight the sources of the error and to help the individual overcome it. The following excerpts illustrate how some of the participants came to understand this new purpose of assessment and actively engaged in forms of self-mediation that would not have been appreciated – indeed, would not have been allowed – in more traditional approaches to formal assessment. In particular, the learners in these examples render problematic structures into a more concrete form to facilitate their comprehension and manipulation of the structures.

7.3.2 Use of concretization as a form of self-mediation

It was noted earlier that during her initial DA Sara spelled a verbal form that the mediator had supplied to her. That was the only instance of such a move during the assessments at time 1, but following enrichment there were several additional examples in which spelling and writing were used to mediate oral performance. This increase over time may be due to the substantial role of writing in the enrichment program. Indeed, it will be remembered that the learners composed their narratives in written form during enrichment because, as argued in chapter 4, this more material form of the language would help learners comprehend and manipulate particularly problematic structures. Of course, spelling should not be relevant to oral performance, but it appears that the participants came to rely on this as a strategy for self-mediation. Interestingly, in some cases orally spelling the forms was sufficient while in others the learners actually wrote them on paper. In both instances, the more material form of the language – either on paper or visualized by the learners – helped the learners to overcome problems. The following is taken from Jess’s TR1 and involves the introduction of an unfamiliar word:
265. J: …il y a des il y avait des shots that got fired?
   …there are some there were some

266. M: uh yeah coups again

267. J: coups d'arme?

268. M: uh coups de fusil
gunshots

269. J: coups de fusil?
gunshots

270. M: […]

271. J: comment est-ce que ça s'écrit?
   How do you spell that?

   [M writes coup de fusil on paper for J]

272. J: oh fusil like fuselage

273. M: uh right uh un fusil is a rifle you can also say une carabine is also a rifle

274. J: okay tout à coup il y avait des coups de fusil et les les les soldats nazis uh
   okay all of a sudden there were gun shots and the the Nazi soldiers uh

275. est morts
died

Initially in line 265 Jess reverts to English, asking M for assistance because she has not
learned the term for ‘gunshots’ in French. M supplies only the first part of the answer,
coups, which had come up earlier in the session and waits to see if Jess is able to produce
the rest of the expression coups de fusil. Jess realizes something is missing from M’s
answer and attempts to supply the missing descriptor, incorrectly guessing the word arme
(weapon). When M responds with the correct term fusil Jess repeats the full expression
but her questioning intonation suggests some uncertainty. She then asks for the spelling
of the unfamiliar lexical item in line 271. In this case, she writes the expression as an
aide to comprehending it, and indeed draws a connection between the French *fusil* and
the English word ‘fuselage.’ While the meanings are certainly not the same, it may serve
as a mnemonic that, coupled with the act of writing the expression, might help Jess to
remember it in the future. During the rest of that session Jess used the expression several
times without referring to the words on the paper, as in the following:

276. J: …ils ont été tués par des coups des fusil aussi les coups de fusil
…they were killed by gunshots also the gunshots

277. continuaient pendant la nuit
were going on throughout the night

A related example occurred when Sara endeavored to use the verb *mourir* (to die)
during TR1 to express the idea that German soldiers died during the revolt depicted in the
video clip from *The Pianist*. While she correctly opted for the *passé composé*, she
produced three errors in line 278: she has followed the rule for producing past participles
for verbs ending in –ir in French, but *mourir* has an irregular past participle, *mort*; it also
requires *être* as its auxiliary rather than the more common *avoir* that Sara used; and *ils* is
the third person plural pronoun but she used *a*, the singular form of the auxiliary.

278. S: les soldats nazis allemands ils a mouri* dans la révolte—
the German Nazi soldiers they died in the revolte

279. M: les soldats allemands what did you say after that sorry?
the German soldiers

280. S: they died ils a mouri*?

281. M: uh right uh mort is the past participle

282. S: oh mort?

283. M: mort m-o-r-t right mort

284. S: m-o-r-t mort not m-o-u-r-i
M initiates the intervention in line 279 by asking Sara to repeat what she said, which she does in both English and French, although she makes no change to the incorrect structure. Because the verb’s past participle is quite irregular, M simply provides it, preferring to focus instead on the issue of the auxiliary, but Sara does not recognize the form. In response, it is M who, in this case, resorts to spelling the form in an attempt to facilitate Sara’s comprehension. Sara repeats this spelling and goes on to spell the incorrect past participle she had produced. Unlike in Jess’s case, Sara does not actually write the form. Instead, simply spelling it was sufficient for her to comprehend the form. In line 288, after M points out the correct auxiliary, Sara combines the elements, including the past participle mort, to produce the necessary PP construction. Then, a few moments later, Sara again uses the verb mourir as she tries to state that the central character did not die during the revolt.
293. survives ce révolte et
survives this revolt and

294. M: right okay with the verb mourir il ne mort pas he doesn’t die

295. S: il n’a pas mort*
he didn’t die?

296. M: il n’est pas mort
he didn’t die

297. S: il n’est pas mort il n’est mort il n’est pas mort
he didn’t die he didn’t die he didn’t die

In this instance, Sara initially leaves the verb in the present tense and M repeats and translates her utterance into English to point out the tense error. Sara responds by switching to the passé composé in line 295. Her attempt at rendering mourir in the PP is more successful this time although not completely correct – she uses a form of avoir rather than être as the auxiliary verb. Importantly, however, the irregular past participle that she had spelled with M’s help was no longer a problem for her. The act of spelling the word was valuable for Sara because its more material form initially helped her comprehension and later her recall.

7.3.3 Learner’s over-reliance on mediator and excessive mediation

There were also instances when the mediation that was provided was not sensitive to the learner’s ZPD but was overly explicit. The danger of excessive mediation is two-fold: 1) learners’ abilities may be underestimated because it cannot be ascertained whether or not a less explicit form of mediation would have been sufficient for them to overcome the problem; 2) learners may come to use the mediator as a crutch to supply answers whenever they encounter a problem instead of relying on themselves. The following excerpt from Donna’s DA2 illustrates an interaction in which M provided too much
mediation and consequently missed an important opportunity to determine the extent to which the learner understood how to produce a negative infinitive construction in French:

298. D: okay um et uh Samuel l’accusait, okay I have to think about this (grabs a pen and starts to write on a piece of paper) I need your little handouts

299. M: (laughs) well maybe we can figure it out

300. D: Samuel l’accusait à n’être pas* à ne pas (...) Samuel was accusing her of not being

301. M: l’accusait like l-apostrophe-accusait?

As in the above examples, the learner mediates herself by producing the structure in a written, material form to facilitate her performance as she plans what she wants to say. In line 301 Donna attempts to correctly situate the negative particles *ne and pas* in relation to the infinitive *être*. Before addressing this issue, M first focuses on the position of the direct object relative to the verb *accuser*. In line 303 Donna confirms this form and justifies her choice by explaining what she means in English. M then shifts his attention to the infinitive construction:

303. D: imparfait] he was accusing her of not being careful uh (...)

304. M: right so remember you were using the negative I’m sorry you were using the infinitive like avoir so remember when you’re using the negative with the infinitive where you put the ne and the pas

305. D: the ne and the pas are together

306. M: right and it goes before

307. D: ah ne pas avoir le soin* not having care

308. M: or pris de soin

309. D: or pris de soin

310. M: or pris de soin
taken care

311. D: n’a pas a il l’accusait de
doesn’t have he was accusing her of

312. M: de ne pas
of not

313. D: de ne pas avoir pris de soin avec ses médicaments
of not having taken care with her medications

314. M: right

M first focuses Donna’s attention on the placement of the negative particles. Then in line 308, when he accepts her response that the forms co-occur, he goes on to tell her where they should be positioned in relation to the infinitive. In lines 310 and 312, he continues to feed her elements of the full construction rather than offering her hints or suggestions to determine the extent to which she understands how to produce the target structure. Unfortunately, this mediation might not have been necessary in this particular instance. Had M accepted Donna’s response in line 308 and then asked her to produce the necessary structure herself, he would have better understood the source of the problem. Likewise, her attempts at completing the structure could have been met with additional questions or remarks, such as “And now there’s something missing, another element we need, because what you said is to have care,” or “If we want to say ‘have taken care’ which verb do we need to use?” Rather than encouraging the learner to contribute more to the performance, M maintained responsibility for it. This meant that the structure itself was produced and this portion of the task completed, but little was learned about Donna’s level of ability.
7.3.4 Inappropriate mediation

In addition to providing overly explicit mediation, another problem that was identified through analysis of the DA sessions were instances in which M misdiagnosed a problem and consequently offered inappropriate mediation. For instance, at one point M misunderstood the form *il a disé* produced by Sara during TR2. The source of confusion was the pronunciation of *disé*. Sara was attempting to produce the verb *dire* (to say) in the *passé compose*, but forgot that the verb has an irregular past participle, *dit*. The form she produced, *disé*, was interpreted by M as an imperfect form of that verb, *disait*. The preferred pronunciation of the imperfect ending might still differ from the past participle since the former would require an open rather than a closed vowel, but this distinction is not observed in all regions of the French-speaking world and certainly not by all learners of L2 French. At any rate, M interprets Sara’s utterance as a mix of the PP and imperfect form of the verb, *il a disait*. It is only through interaction that it later becomes clear that the problem is not a mixing of two aspects (*il a disait*) but rather an inappropriately formed irregular past participle (*il a disé*). M mistakenly intervenes by offering the learner a choice between the two forms and, she selects the imperfect rather than the PP. Interestingly, Sara was correct in her initial selection of the *passé composé*, although she formed it incorrectly. In response to M’s intervention, however, she switched to the *imparfait*, preserving the pronunciation she had used but changing the meaning.

315. S: …*il a disé/disait* à Candide pour quitter la maison
    …he said/was saying to Candide to leave the house

316. M: *il a dit ou il disait*?
    he said or he was saying

317. S: *il disait*
    he was saying
318. M: il disait?
   he was saying?

Following the session, M returns to this problem.

319. M: okay and then there’s the other one that I was helping you with the verb
dire right a dit versus disait

321. S: at what point?

322. M: you went with disait to say he was telling Candide at the end when he
chased him out of the castle right

324. S: Il a dit il lui a dit pour quitte* le château
   he told he told him to leave the castle

325. M: okay so passé composé?

326. S: what did I say?

327. M: you were using disait in the narrative I was wondering if there was a
reason you wanted to go with imparfait

Here M offers both forms, reminds Sara which form she had selected, and then translates
it to English. Upon hearing this, Sara reverts to her first choice, the *passé composé*,
which more accurately conveyed the idea. In fact, in line 326 Sara asks M what she had
said because she seems quite certain that the *passé composé* is the appropriate aspect.

When questioned about her switch to the imperfect, she explains:

329. S: I probably wasn’t sure how I wanted to frame the sentence but il a
disé/disait* if it was over like finished saying get out of my house and if
331. you’re saying get out my house and he threw him out
332. M: okay which one were you going for?
333. S: finishing the two at that moment he told him to get out of the house and he
334. threw him out
335. M: so passé composé and passé composé
336. S: passé composé and passé composé

It seems clear from Sara’s explanation that, to her, the PP is the aspect that best expresses
her portrayal of the action, and the explanation given in lines 333 and 334 supports her
decision. The source of the problem was actually the past participle and not the choice of
aspect, but this only became clear through M’s cooperative dialoguing with the learner.

7.4 Conclusion

The present chapter sought to understand the various manifestations of learner
development in the assessment and transfer sessions. Patterns in the data were identified
through a close reading of the session transcripts. This approach allowed for greater
contextualization of the dialogic interplay between mediator and learner that brought
about development. Importantly, and as would be expected from a Vygotskyan
perspective, these interactions did not produce exactly the same results for each of the
learners. For example, Sara’s performance during DA1 revealed that, although she had
some understanding of when to use the passé composé and the imparfait, she had
problems appropriately forming them. Although her work with the mediator during the
enrichment program targeted the formation of the imperfect and past participles, she
continued to have difficulties during the assessments at time 2. In fact, at one point this
resulted in the mediator misinterpreting a structure she had produced and providing
inappropriate mediation. Nevertheless, there was also evidence that Sara was closer to
being able to independently produce the forms, given that the only assistance she needed was a reminder of the infinitive form of *savoir* in DA2. She even displayed some ability to extend her conceptual understanding of tense and aspect to other linguistic forms that help to situate events in a narrative, such as the pluperfect. In Amanda’s case, the enrichment program brought her to a point where she was able to make rapid progress in her control of aspect after a discussion with the mediator during DA2. She showed marked improvement during that session and continued to exhibit a more sophisticated understanding of the tense-aspect relationship, and its impact on meaning, even while completing the transfer tasks.

This chapter also considered the emergence of a change in the learners’ orientation to the sessions. The inherently collaborative nature of the mediated sessions helped learners to begin to develop an alternative way of approaching the assessments – one that ran counter to their history as test-takers in formal school settings. This shift in perspective had important consequences, such as how learners viewed the mediator’s presence. Initially he was seen as an impartial assessor but later there were signs that he was viewed as a partner who was willing to help the learners improve their ability in the language. Although it was argued in chapters 1 and 2 that many factors will no doubt contribute to the practitioner’s choice of interactionist or interventionist DA, the results of the analysis presented here are a particularly strong endorsement of highly flexible mediation that is sensitive to the unpredictable changes that characterize cooperating in a zone of proximal development.
CHAPTER 8 – DATA ANALYSIS AND DISCUSSION:
DYNAMIC ASSESSMENT AND INSIGHTS INTO LEARNER DEVELOPMENT

8.1 Introduction

It has been argued that one of the major contributions of dynamic procedures over static procedures is that the inclusion of mediated interaction during the assessment provides more information regarding an individual’s knowledge and abilities; indeed, this point has even been acknowledged by critics of DA (see Snow 1990). Sternberg (2000: xiii) has attempted to capture the idea that DA offers information traditional assessments do not by using a metaphor in which assessment results are likened to forms of currency. In his analogy, Sternberg observes that it is better to be offered fifty American dollars and five thousand Venezuelan bolivars than to be given only one or the other. Similarly, he suggests that the results of a dynamic procedure provide insights that are an essential supplement to what can be learned from a static assessment, and that stakeholders are better off with both kinds of information than only one of them.

Sternberg’s portrayal of DA as a supplemental procedure is unfortunate because it diminishes the qualitatively different view of the individual that emerges from DA. Nevertheless, he does effectively illustrate the point that DA has much to offer beyond what is gained from a non-dynamic procedure. This relates to the validity of the assessment procedures. As described in chapter 3, several types of validity have received attention in the testing literature, including concurrent validity, predictive validity, and systemic validity, among others. Messick (1989) acknowledges the usefulness of the various ways of understanding validity but argues that the common thread running through all these facets of validity is the degree to which one can make claims about an
examinee’s abilities based on the evidence provided through test performance. Thus, it would seem that the crucial component in an assessment procedure’s validity is the information it provides. On this view, the more information a test offers about the ability being assessed and the more detailed that information is, the more confidence one can have to make inferences based on examinee performance.

The goal of the present chapter is to demonstrate some of the insights that can be gained when Vygotsky’s (1998) recommendations are taken seriously and the object of the assessment shifts from measuring the individual’s abilities to interpreting and promoting those abilities. As explained in chapter 3, this new goal requires a new methodology, and many of the concerns that characterize traditional, psychometric assessments, such as standardization and reliability, are no longer relevant but have been replaced with other issues, which have to do with the procedure’s focus on development. The previous chapter traced learners’ development through the various mediated assessments, arguing that the very nature of their interactions with the mediator changed over time as they increasingly took on responsibility for their performance. While the learners did not always demonstrate complete control over tense and aspect, several other sources of evidence of development emerged, including changes in the mediation they required, changes in reciprocity, attempts to mediate themselves through spelling and writing, and efforts to extend their learning to related linguistic structures. In this respect, evidence was provided in support of the central claim of many DA proponents (e.g., Feuerstein et al. 1979) that a testing procedure that includes mediation can bring about development through the assessments themselves.
In the remainder of this chapter we will consider some of the insights that are
gained through the collaborative dialoguing that is the mark of DA. The learners’
verbalizations during and after the assessments not only helped them to reconsider and
think through problems, they also helped the mediator identify the learners’ level of
understanding. The implications for educators and assessors include the following:
overestimates and underestimates of learners’ abilities can be avoided; the extent of a
learner’s problem can be determined; the proper source of difficulty can be ascertained;
sudden changes in a learners’ performance can be documented and explored. Each of
these is discussed in the following sections.

8.2 Enhancing the Validity of the Assessment: Mediation Leading to Different
Diagnoses of Learners’ Abilities

Proponents of DA have long argued that it improves validity because it provides
information about the individual’s abilities that a static measure does not (Lidz & Elliott
2000: 5). In particular, those working in the Feuersteinian tradition point out that the
results of their assessments go far beyond simply noting that an individual can or cannot
respond correctly to a test item; the interaction between the mediator and the learner
highlights the kinds of assistance the learner needs to complete the test and brings to light
underlying deficiencies or problems in the learner’s development. This kind of
interaction is what Vygotsky had in mind when he insisted that assessments of ability
must not merely provide a label but must explain the source of the problem and suggest
how it can be overcome (for further discussion see Karpov & Gindis 2000 and Lidz &
Gindis 2003). In other words, assessments should be about prognosis rather than simply
diagnosis. This more nuanced view of an individual’s abilities increases the confidence in
understanding how an individual approaches specific kinds of problems and where in the
process of solving these problems difficulties arise. The validity of the assessment
procedure is greatly increased by the information that emerges from interaction between
the mediator and the learner. With regard to the learners who participated in the present
study, mediator-learner interactions brought to the surface information about their
abilities that were more profound than what normally emerges in traditional approaches
to testing. I consider this information in 8.2.1

8.2.1 Mediation as a means to avoid underestimating a learner’s abilities

Budoff (1968) expressly stated that his research endeavored to uncover hidden
potential among underprivileged learners, whose abilities were typically underestimated
by traditional tests. As explained in chapter 2, Budoff’s work built upon the earlier
defectology research of Vygotsky and Luria, which stressed the crucial observation that
failure to offer learners some form of external mediation does not allow us to fully
capture their abilities (Luria 1961). By observing independent performance only, one
does not see those abilities that are in the process of forming and, perhaps more
importantly, one may miss the opportunity to assist the development of those abilities.

Early in her initial DA narrative, Amanda relied on the contrast between the passé
composé and the présent instead of the passé composé and the imparfait. In some
instances, the present was appropriately used to make evaluative commons, as in line 2
below (“one has the idea that…”). However, it was also used when a past tense was
clearly required. In order to ascertain the reason that Amanda was not producing the
imperfect, the mediator (M) intervenes in her narration and attempts to reorient her to the
task:
01. A: les gens qui voudraient les enfants (...) ils ont besoin d’être préparé? pour people who would like children (...) they need to be prepared? For

02. leur responsabilité d’avoir les enfants et, on a l’idée que il n’a voulu pas* uh their responsibility of having kids and, one has the idea that he didn’t want uh

03. n’a pas voulu la responsabilité pour les enfants maintenant mais pendant il didn’t want the responsibility for kids now but while he

04. M: yeah uh right he so remember you’ve got the two past tenses right? Okay

05. A: pendant il a parlé Rebecca a dit qu’elle qu’elle a enceinté* et uh… while he spoke Rebecca said that she that she has pregnant and uh…

The initial reminder that there are two ways of talking about the past in French was not sufficient to produce a change in Amanda’s performance. She continues her narration using only the passé composé, and the present, avoiding the imperfect as with the verbs parler and être in line 5. After a moment, M intervenes once again:

06. M: I’m just going to kind of interrupt you there for a minute and ask you to go

07. back and renarrate it again and this time keeping in mind for example the

08. difference between the two major past tenses in French the passé composé and

09. the imparfait

10. A: Rebecca et Samuel conduisaient à la maison de leur ami Sean et pendant le Rebecca and Samuel were driving to their friend Sean’s house and during

11. voyage Samuel a dit que les gens qui qui avaient les enfants doit être prépare the trip Samuel said that people who who had kids must be prepare

12. préparé pour leur responsabilité prepared for their responsibility

M’s second intervention results in a successful change in the learner’s performance. Importantly, the extent of the mediation was naming the PP and the imperfect and calling her attention to the fact that there are differences between the two; M does not explain these differences to Amanda, nor does he provide illustrations or suggest that she
reconsider her choice of aspect for specific verbs. Nevertheless, when asked to begin her narrative again, Amanda shows that she is able to incorporate both the *imparfait* and the *passé composé* into her story and that she does have some control over them. Clearly there are mistakes in her second attempt and her performance is not perfect. However, we must keep in mind that without this interaction it would have been difficult to discover that the learner indeed has some control over the use of past aspect. Such an evaluation would have obviously underestimated Amanda’s level of development.

8.2.2 Mediation revealing the extent of a problem

Nancy’s performance during her initial assessments bore a striking phenotypic resemblance to Amanda’s, although through interaction with her, M determined that the reasons for the performance were different. Nancy began to construct her narrative during the dynamic session in the same way that she had during the static session, relying almost exclusively on the present tense and the *passé composé*. Indeed, the very few instances of *imparfait* appeared with the verb *être* (to be). Initially, Nancy used the PP to construct her narrative around a series of completed events, thus avoiding important background information. Consider the following:

13. N: elle a dit que elle va avoir une bébé. Et uh Sam non elle a réacté*
   she said that she is going to have a baby. And uh Sam no she reacted

14. M: uh réagir

15. N: réagir il a réagi il a réagi avec (...) il perd il a perdu le contrôle de la
to react he reacted he reacted with (...) he loses he lost control of the

16. voiture et ils ont avoir* une accident et elle a pensé que-
car and they have to have an accident and she thought that

17. M: il a perdu contrôle de la voiture ils ont?
   He lost control of the car and they have?
18. N: ils ont ils ont av ils ont avoir (laughs) ils ont avoir wait ils ont avoir uh they have they have they have to have (laughs) they have to have
19. (…)
20. M: something about accident?
21. N: what's the past tense the past participle of avoir?
22. M: eu
23. N: eu ils ont eu ils ont eu un accident. had they had they had an accident

In the above excerpt, Nancy is very clear that she wants to use the PP to state that the characters had an accident, and she receives mediation to help her do this. Later in the session, however, M moved from being initially impressed at her control of the PP to noticing the conspicuous lack of imperfect constructions, even when it was clearly needed. This prompted him to question Nancy about how she might use the imperfect:

24. M: I'm just going to interrupt you right there for one second because this is a good transition point…Um I noticed a couple of things with the passé composé right? Um just a cou I guess it's basically just a question like ils sont they went in the car ils ont décidé de voir leur ami et ils they decided to see their friend and they
25. allés dans la voiture in the very beginning ils ont décidé de voir leur ami et ils in the car went in the car
26. sont allés dans la voiture and then later on uh Samuel n'a pas pu croire qu'il y a des personnes. So what about the imparfait? Are there instances where you are people couldn’t believe that there could use imparfait or what do you think?
27. N: um (…) yeah see I have a problem with the imparfait actually. I tend to use it when I'm not supposed to and I forget to use it when I have to (laughs).
33. Um cause imperfect is when something is going on like so I guess I could
34. have said so if they're driving I guess I could say I could use the imperfect for
35. driving?
36. M: so then?
37. N: ils étaient uh no uh (?) qu'il était* des personnes qu'il était des personnes
       they were that he was some people that he was some people some
38. personnes qui sont qui ont des enfants cause it didn't just happen once there
       people who are who have kids
39. are people like that so I guess I could have used that. Would that make sense?
40. M: yeah that would be possible but then what about when they were in the
41. voiture they decided to go in the car right.
42. N: ils sont allés
       they went
43. M: Would that be an opportunity you would have to use the passé composé or
44. would imparfait also be possible?
45. N: I used passé composé when I said decided to go because they made a
46. decision once and it happened once
47. M: ils ont décidé
       they decided
48. N: ils ont décidé d'aller but then I don't know if I could use it probably I'm just
       they decided to go
49. not thinking right but I don't know if you could use it while they're in the car.
50. Pendant oh I could use pendant. Pendant ils (…) allaient allaient allaient is
    While while While they were going were going were going
51. the imperfect of aller right?
52. M: yeah
53. N: yeah so. Yeah so pendant qu'ils allaient à la maison de Sean Sam parle de while they were going to Sean’s house Sam speaks about les choses et les enfants [I guess I could have said that too things and kids

55. M: okay okay

56. N: okay yeah I forgot all about that one (laughs)

Through interaction with Nancy, M realized that the reason she had used the imperfect so little was not due to a conscious decision regarding how she wanted to narrate the events in the story. The problem, in fact, was that she was uncertain how to form the imperfect and she did not understand how to use it appropriately. Unlike Amanda, Nancy failed to use imperfect aspect not because she had forgotten about it but because she was unable to use it. For instance, in lines 37 and 38 Nancy produces était but then immediately switches to English to explain that the imperfect would be possible because people having children unprepared is not an isolated event. Her reasoning suggests that she may be combining two rules she had learned for using aspect: the imperfect is used for descriptions (“there are people like that”) while the PP is used for actions that occurred once in the past rather than repeatedly (“it didn’t just happen once”). Then, in line 50 she remembers the expression pendant (“oh I could use pendant”) and recalls that pendant que (while) is often linked to the imperfect (e.g., while I was sleeping, they went to the store). Through her verbalization Nancy found a solution to the problem of how to express her idea (This phenomenon is discussed in detail below). Remembering the expression pendant que, Nancy seizes this as an opportunity to incorporate the imparfait into her narrative, although she has some doubt about how to use this aspect with the verb aller (to go).
Interestingly, Nancy’s performance improved during the session. Although this kind of change does not often occur in static assessment – and if it does, it is difficult to detect and interpret – it is the ideal outcome of a dynamic procedure. This point will be taken up in the next subsection, but first it is worth discussing the performance of another participant, Elaine. Elaine was unlike the other learners in that she eschewed the rule-based account of the difference between PP and imperfect and opted instead to follow her instincts as to “what sounded right.” Unfortunately, Elaine’s intuitions did not always result in the appropriate structure.

The following excerpt, taken from Elaine’s first DA session, suggests that she is either unable or unwilling to offer an explanation regarding her choice of verb tense:

57. E: …quand elle a dit qu'elle était enceinte il a tourné la voiture de la (?) il y a when she said that she was pregnant he turned the car from the there is

58. il y avait un accident et ils ont-there was an accident and they

59. M: I have a question actually I just want to interrupt for a second. You said if

60. I remember correctly il a tourné la voiture et uh il y avait un accident so using

61. the um in the first part of the sentence the passé composé and then in the

62. second part the imparfait? Right?

63. E: oui

64. M: il y avait un accident? There was an accident

65. E: oui

66. M: just asking why the change in mid-sentence.

67. E: j'sais pas (laughs) uh I dunno
68. M: uh was that like a deliberate [thinking of how you wanted to

69. E: non pas du tout (shaking her head)
   no not at all

70. M: no?

71. E: no (shaking her head)

72. M: okay

Elaine’s use of the PP with the verb tourner (to turn) is appropriate but her switch to the
imperfect for the verb avoir (to have) is not. M interrupts, seeking confirmation that she
has chosen the imperfect and then repeats her utterance aloud. Elaine appears quite
confident and gives no indication of reconsidering her choice. In response to M’s request
she produces a somewhat flippant comment in line 67, and even in lines 69 and 71 she
does not enter into a discussion with M. A moment later M again seeks an explanation:

73. M: well if if this were like a test or something would you be more deliberate

74. would you have still gone with [passé composé and then imparfait? With

75. those two choices?

76. E: premier c'est passé composé uh] (...) imparfait je pense
   first it’s PP uh imperfect I think

77. M: imparfait? With which verb?

78. E: avec tout
   with all of them

79. M: touts les deux okay so you would say then like um what was it?
   both of them

80. E: Il avait il il tournait il tournait [il tournait la voiture
   he had he he was turning he was turning he was turning the car

81. M: il tournait] la voiture
   he was turning the car
82. E: et il y avait un accident
   and there was an accident

83. M: et pourquoi l'imparfait?
   And why the imperfect

84. E: parce que c'est dans le passé mais ce n'est pas encore fini (...) um I can't
   because it’s in the past but it isn’t yet finished

85. think of the word

86. M: you can answer in English

87. E: la scène it's still going on

88. M: it's still going on? In the?

89. E: in the scene

90. M: okay

91. E: mais peut-être je veux dire il a eu un accident parce que l'accident [c'est un
   but maybe I want to say he had an accident because the accident it’s a

92. action fini
   completed action

93. M: well that would] be in the passé composé

94. E: yeah but maybe I should have peut-être je au je pouvais utiliser
   maybe I to I was able to use

95. M: passé composé? Because?

96. E: parce que l'accident est déjà fini mais la scène [ (...) va encore
   because the accident is already finished but the scene is going again

M has to ‘up the stakes’ by asking Elaine to imagine that this assessment is a test with
consequences before she acquiesces and engages in a dialogue. Initially Elaine decides to
switch both verbs to the imperfect although the explanation she offers in lines 84 through
87 indicates that her understanding of aspect is vague. She then reverses her original
decisions by putting the verb *tourner* in the imperfect and *avoir* in the perfect. Her
reason for changing *avoir* to the PP suggests that the imperfect would not be a possibility (i.e., that one could not talk about the ongoing aspect of having an accident).

Clearly Elaine has some awareness of aspect, but she does not appear to be guided by this knowledge; her reflection led her to change both verbs with very little intervention from M. Nevertheless, her unreflective performance continued throughout the assessment:

97. M: j'ai une question so there you have quand Christine était avec lui elle a
    I have a question when Christine was with him she

98. voulu avoir des enfants-
    wanted to have kids

99. E: elle voulait avoir
    she wanted to have

100. M: ah elle voulait avoir
    she wanted to have

101. E: elle voulait avoir des enfants [parce que c'est
    she wanted to have kids because it’s

102. M: donc imparfait imparfait imparfait parce que? Could you explain—
    so imperfect imperfect imperfect because?

103. E: (shakes her head)

104. M: —why imparfait seems right?

105. E: je ne peux pas expliquer c'est la façon dans laquelle je parle
    I can’t explain that’s the way I speak

In this instance, Elaine refuses to explain her choice of the imperfect and does not want to engage in a discussion of its appropriateness.

Elaine did not participate in the enrichment program, but her performance during the second DA session paralleled the earlier assessment. Once again, she preferred to
rely on what she described as her “intuition.” When M persisted in asking for an explanation she would resort to a rule of thumb, even when the rule she invoked did not fit the situation or when it was not in fact a rule at all. What appears to be happening, then, is that when Elaine was pushed to offer an explanation, she resorted to her history as a learner in the formal context of a French L2 university course, where instruction is heavily rule-based. The result was that her explanations sometimes were not appropriate to the particular usage. For example, in the following excerpt M asks Elaine about her choice of aspect for the verb *arriver* (to arrive):

106. E: Et finalement ils ont arrive* ils arrivaient chez Sean et il s'inquiète il and eventually they arrived they were arriving at Sean’s et he worries he

107. s'inquiètait
was worrying

108. M: And the verb arriver there you said ils sont arrivés and then arrivaient.

109. Why the switch there?

110. E: ils ont arrive*
they arrived

111. M: Were you switching on purpose?

112. E: I switched back to ils ont arrive*

113. M: ils ont arrivé? so um passé composé right?

114. E: (nods)

115. M: Because uh?

116. E: they just arrived once. Uh-

117. M: if you used imparfait there what would that be? Could you use

118. imparfait there? For ils arrivaient?

119. E: (…) I'm thinking you can but I'm not sure when (…) it wouldn't make
Here Elaine’s explanation is linked to a rule she had learned regarding a single occurrence (PP) and multiple occurrences (the imperfect). Such rules are often presented to learners to teach them to differentiate aspect but Elaine does not understand why the forms are associated with these functions. She does not understand aspect, and so when prompted to verbalize her reasoning she does the only thing she can – she attempts to explain her choice by connecting it to a rule she had learned, although this leads her to the odd conclusion that using the imperfect would imply that the people arrived several times.

Later in that same session, Elaine is once again asked about her choice of aspect. At this point she becomes quite agitated, possibly because she is not accustomed to thinking in depth about the differences between the PP and the imperfect:

123. M: go ahead you can go back through it now real quick in French just the part where you were setting it up?
124. E: C’étaient dans la voiture rouge et ils ont ils ont conduit. Rebecca a je pense que j’ai dit elle a compté dans la calendrier I think that I said she counted on the calendar
125. M: uh huh elle a compté et ils ont conduit so passé composé and then how she counted and they drove
126. E: I don't know it just it just is is that a good explanation? Because it just
sometimes that's how you say it?
M: well I mean sure I guess we've always got that instinct there or
something like that but I was just wondering if there was something else
like a conscious decision going on or if that's just what came out
E: No it kind of just came out [I really didn't think about it
M: okay okay]…

In lines 125 and 126 Elaine is not completely certain which forms she had used and yet
she insists that her choice of the PP is correct. She is resistant to the idea of giving
careful thought to the selection of aspect. However, when urged to think through her
decisions, her response is striking:
M: …and if you were to go back and do it now or to write it as you said?
E: I would probably use the imperfect
M: oh instead of passé composé?
E: (…) yeah. If I was writing it I might have just picked one of the two
and then stuck with it for the whole thing.
M: one of the two? Like either imperfect or passé composé?
E: yeah
M: and stuck with it for everything?
E: yeah for the most part of it.
M: hmm. How come? Cause that's kind of
E: Maybe that's the wrong thing but that's what I was always taught
M: That you should be consistent? If you're using imperfect you should
use it through and if you're using passé composé you should use it though?
E: (nodding) yeah

M: rather than mixing them? Like using some passé composé and some imparfait?

E: yeah unless like it's really indicated you should use one or the other.

M: and based on what we've done here and what you've done in your class and stuff what would be like the major indications where it would be like it's flagged oh it's definitely one versus the other in this case

E: Passé composé being the action it happened once either it happened once or it happened completely and it's over a habitual action where it keeps on going or it's still going uh it's still going on

M: okay okay alright so in this case would it be like she was counting and was driving the car and stuff using the passé composé there because it was um?

E: She did it and she was done. I don't know if that's right or not but

M: I'm just trying to delve down into where students are at because it's not

E: that's what they teach that's what they teach here for the most part for the difference between those two.

It is difficult to imagine that a French instructor would advise students to select only one verb form to use rather than encouraging them to use both in their writing. The instruction most likely said that use of verbal tenses must be consistent in the sense of sequence of tenses: if this then that. Moreover, Elaine did not follow this approach but instead made use of both forms in her narratives. Her comments regarding the instances when one should clearly use a given form also provide support that her understanding of
aspect is based upon rules that describe when they are often used (e.g., habitual and ongoing actions). It is also noteworthy that Elaine repeats that she does not know if the rules are “right or not” and that she defends herself against possible criticism by stating that she is simply following “what they teach.”

8.2.3 Mediation and sensitivity to change during the assessment

It will be recalled from the discussion above that Nancy began to show signs of improvement during DA1. In that session, after the intervention described above, Nancy made a few attempts to use the imperfect; generally, her choices were appropriate and the forms were correct. Moreover, discussion between M and the learner at the end of the session revealed changes in how Nancy talked about selecting the forms, suggesting that she was beginning to see a relationship between aspect and meaning:

166. M: voila voila. Une chose just one thing that I was thinking about was that’s it that’s it. One thing

167. you said towards the end um il pensait que les femmes sont comme des he was thinking that women are like praying mantis

168. mantis de priere right? Il pensait. Why um imperfect there?

169. N: Cause he was thinking. I thought maybe it's not something he thought about once it's the way he thinks like in the in the I guess that's (laughs)

170. the way he feels about women

171. M: alright okay. And before that you had said il n'était pas prêt d'avoir des he wasn’t ready to have kids

172. enfants. Using imparfait again. Because?

173. N: Because again he's right now and then he's not ready for it.

174. M: Okay but you also said il n'a pas voulu avoir des enfants [using passé composé he didn’t want to have kids

175.  

176. composé
N: I used both didn't I?

M: well no I'm just curious I'm just trying to figure out your process

N: because it's what I meant was whenever they had a conversation I guess

whenever Sean and Christine had their conversation he didn't want kids

right then and there (slapping one hand against the other). He doesn't.

want kids but when he was explaining what happened it's because he's not

ready for kids. That's why.

M: okay. So like that imparfait and then that one moment in time (?)

When M first questions her use of the imperfect with the verb penser, Nancy’s answer is somewhat ambiguous. Her response that “it’s the way he thinks” could imply that she is continuing to follow a rule, such as using the imperfect to give descriptions, without really understanding aspect. Her distinction between using être in the imperfect and vouloir in the PP reveals a more principled understanding. In the case of être she explains that at the time of action “he’s not ready for kids,” and she contrasts this with vouloir when, during the conversation, “he didn’t want kids right then and there.” This is noteworthy because vouloir refers to a state of being and so is often used in the imperfect, although its use in the PP is certainly grammatical and would indicate some change in state, as Nancy suggests.

This change in Nancy’s remarks about aspect does not have the same status as the change in performance observed in Amanda. Amanda required minimal mediation, essentially a reminder, and she was able to independently use the forms with some degree of control. Amanda’s ability to control aspect was already fairly well developed but she still required slight prompting. Nancy, on the other hand, required prompting throughout
the session and still generally avoided the imperfect, but some degree of understanding began to emerge towards the end of the assessment. To be sure, this change in the ability being assessed is problematic in static procedures, where it would be difficult to make statements about a given ability if it were a moving target. In DA this change was highly visible, and had Nancy participated in the enrichment program, it would have been explored in detail. However, after the initial assessments Nancy and M had no contact until the follow-up assessments were conducted approximately six weeks later. As expected, her performance on DA2 largely paralleled her earlier assessment. Nonetheless, there were indications that some of the impact of DA1 remained.

In the following excerpt, Nancy is struggling to choose the most appropriate aspect to indicate that the character Sam was surprised by his wife’s announcement that she was pregnant. Nancy clearly understands that her choice of aspect will have an effect on the meaning she is expressing, and she has some understanding that an action or state of being can be talked about in different ways, each highlighting a different aspect.

185. N: …il était très surprise c'est une c'est une surprise pour Sam
   he was very surprised that it’s it’s a surprise for Sam

186. M: remember in the past

   it was? A surprise for Sam? It was?

188. M: using imparfait?

189. N: imparfait um or çaaaa I guess c'était so c'était-

190. M: because? You're not certain?

191. N: well it's a surprise for the whole time for him or was it a surprise right

192. away (exasperated sigh)
M: I'm sorry was it a surprise right away or?

N: for him I'm trying to say it was a surprise for Sam

M: okay

N: and I'm trying to think if I want to put it in passé composé or imperfect

M: well if you put it in imperfect because that was your first instinct what

would that how would that come across what [would that mean?

N: because it was] a surprise for him it wasn't like surprise okay over it

was a surprise it lasted that was what caused them to get into an accident

Her comments suggest that she understands that being surprised could be used in the narrative in the imperfect, stressing how Samuel was feeling when they had the accident but that it could also be used in the PP, emphasizing that Samuel was surprised by the news he heard and then the accident took place. However, Nancy simultaneously attempts to follow a formulaic rule-based approach, as evidenced in the following statement that using the same aspect twice in a sentence might violate a rule:

M: (?) uh huh yeah if you could just back up and try to redo it

N: okay it is a hard part

M: it is tough yeah but you're doing a good job

N: okay pendant qu'ils attendaient le service pour réparer la voiture ils ont
while they were waiting the service for to repair the car they

ils ont parlé oh uh ils ont parlé-
they spoke oh uh they spoke

M: were you thinking of something else?

N: I was going to think of imperfect but then no they can't be both

imperfect in a sentence can it?
209. M: two?
210. N: two imperfects
211. M: two imperfects in a sentence? I suppose it depends on what you mean
212. N: because [well I
213. M: it depends on what you're trying to say right?
214. N: yeah I'm going to go with passé composé so it's pendant qu'ils while they were waiting for
attendait le service pour réparer la voiture ils ont parlé de la situation the service to repair the car they spoke about the children situation
215. des enfants
216. des enfants

In lines 214 through 216 Nancy decides to use the imperfect in the clause beginning with *pendant que* (while) but to put the verb *parler* in the PP. There is no indication that this decision is based on the meaning Nancy wants to communicate. Rather, she appears to be following a formulaic construction typical of rule-based approaches to teaching aspect (while event A was taking place, event B occurred). Thus while her limited interaction with M during the first DA session planted the seeds for development, the impact was not far-reaching; she appears to still rely on a more rule-based approach during DA2.

A related example is taken from Donna’s second DA session where mediation revealed a struggle similar to Nancy’s between a conceptual understanding of tense and aspect and the rules of thumb she had learned elsewhere. In Donna’s case, these two conflicting ways of understanding resulted in inconsistencies in her performance. Her interaction with M, then, is a crucial part of understanding the decisions behind her performance and, consequently, the development that has occurred following the enrichment program. In the following excerpt, Donna has just finished her narrative and
M questions her about her difficulty deciding which aspect to use with the verb *commencer* (to begin). Her response reveals how she was approaching her selection of aspect at that point:

217. D: yeah I can’t make up my mind about that one he started to have he
218. started to imagine a situation and so it begins you taught me something I
219. hadn’t realized before that you can use the passé composé to indicate a
220. specific beginning of something that happened in the past and not be really
221. clear about when it ends and so that rule that you taught me was making
222. me use passé composé but my gut was to use imparfait so that’s why I
223. couldn’t make up my mind
224. M: and why imparfait?
225. D: because it was something he imagined for a period of time but I think I
226. should override my instinct and in this case use il a commencé to indicate
227. that there was a definite place when he started to imagine uh the story that
228. his friend had told him

In the end, Donna chooses to use the PP, but it is interesting that she was torn between, on the one hand, the rule she had learned which states that the imperfect is used for events that occur “for a period of time,” and on the other hand a new “rule” that emerged from her interactions with M, namely that the PP can be used to emphasize the beginning of an action. Donna’s “gut” instinct was to follow the old rule even though she was not sure it was an appropriate expression of how she wished to talk about the film – “he started to imagine a situation.” In effect, the rules Donna had learned were actually constraining her. That is, since she did not understand the underlying concept that
allowed such descriptive “rules” to be generated in the first place, she did not realize that they were inappropriate in this context. In particular, without understanding that the imperfect is used to emphasize the ongoing, incomplete aspect of actions, the rule she had learned about the connection between this form and events that endure “for a period of time” did not make sense to her. Thus, when trying to describe the act of imagining something, she erroneously considered the imperfect, reasoning that an act of imagining goes on “for a period of time.”

Despite her confusion, the act of verbalizing her decision-making, even though M said very little, was beneficial for Donna. This mediational role of verbalization is discussed in detail below, but for now a single example of its benefits is relevant to Donna’s case. Immediately following their discussion of the verb *commencer*, M moved on to the next verb, *avoir* (to have), in order to see how Donna would approach reconsidering her use of the imperfect:

229. M: and then you said that he had a nightmare il avait un cauchemar using
230. imparfait?
231. D: yeah
232. M: because?
233. D: well it should be he had a nightmare so that would be passé composé
234. but he was having a nightmare when he woke up so maybe I want to
235. indicate that it was something that had gone on for a while and then it
236. woke him up
237. M: oh okay
238. D: which would be passé composé il avait un cauchemar et tout à coup il
he was having a nightmare and all of a sudden he
This time Donna switches to English in lines 233 to 236 and mediates herself by considering how the meaning of *avoir un cauchemar* (to have a nightmare) and its connection to *il s’est réveillé* (he woke up) change when *avoir* is switched from the PP to the imperfect. She considers the consequences of both aspects and decides that her original choice of the imperfect is most appropriate for how she wants to portray the events in the narrative. Thus, Donna has clearly benefited from the enrichment program by deepening her understanding of the relationship between tense and aspect.

Nevertheless, this control and understanding is not complete as it now conflictingly coexists with her earlier, rule-based understanding of aspect, and the divergence between these two ways of perceiving temporal states and events sometimes results in errors.

8.2.4 Mediation and the identification of additional problem areas

A final way in which the inclusion of mediated interaction increases the validity of an assessment procedure is that careful analysis of a learner’s responsiveness can bring to light problems that lie outside the focus of the assessment. For example, in the following protocol, M targets Donna’s choice of aspect, but through their interaction it becomes clear that another area was in need of attention – the formation of the PP of pronominal verbs.

240. D: …et les quatres les deux femmes les deux hommes ils se présentaient and the four the two women the two men they were introducing themselves

241. l’un à l’autre et um et—

242. M: they do what? I’m sorry

243. D: ils se présentaient l’un présentaient*? se présentaient?
they were introducing themselves the one was introducing? Were

244. introducing oneself?

245. M: right it’s yeah well you’ve got se présenter to present each other—

246. D: l’un l’autre*
the one the other

247. M:—right but um what about the verb tense there?

248. D: a présenté ont présenté
presented presented

249. M: and it’s se as well right?

250. D: sont présentés ils sont présentés*?
presented they presented?

251. M: but you still have to keep the se in there remember? it’s reflexive

252. right?

253. D: yeah ils s-apostrophe-o-n-t?

254. M: oh right I see what you’re saying remember with reflexive verbs they

255. always use the other auxilliary right (…) because you’re using a form of

256. avoir
to have

257. D: uh huh

258. M: ont
have

259. D: ont
have

260. M: but they’re always going to be using the other one because it’s

261. reflexive

262. D: oh oh it’s être
to be
M begins by targeting Donna’s choice of the imperfect for the verb *se présenter* but her responsiveness, particularly her difficulty putting the verb in the *passé composé* beginning in line 248, leads M to shift his attention to the use of pronominal verbs. The rest of the exchange dealt with placement of the pronoun *se* and selection of the appropriate auxiliary. This was not the intended focus of the intervention, and in a static assessment the problem may have never been identified; instead, the use of *se présenter* would have simply been marked as an appropriate or inappropriate use of aspect. In fact, even in an interventionist approach to DA, with its comparatively rigid framework for mediation, a mediator may have identified the actual problem but would not have been free to interact with the learner to resolve the difficulty. Only in an approach that allows for mediation to be negotiated and for the focus of the assessment to be always emergent can a mediator be fully committed to promoting development in the ZPD.

### 8.3 Verbalization Data

Asking learners to explain their thinking after or even during the assessment was an extremely useful technique for bringing to light the extent of their understanding and identifying sources of poor performance. In the preceding discussion on development in the ZPD, verbalization data was included as evidence of conceptual change over time as individuals acquired more conceptual understandings of tense and aspect in French. The
following subsections address additional benefits to including verbalization techniques as part of the DA procedure. It was found that verbalization did far more than sharpen the understanding of learners’ abilities – it actually helped to promote development by providing an opportunity for the learners to step back from the assessment task and reflect on their own performance. In these instances, the mediator assumed a more reduced role than normal in the interaction, often limiting his contributions to clarification requests and confirmation or acceptance of a response. Nevertheless these exchanges, as illustrated below, played an important part in fostering and sustaining development.

8.3.1 Verbalization and mediator presence

At one point during her second DA session, Donna momentarily paused in her narration and focused explicitly on her selection of aspect for the expression être en colère (to be angry). She initially used the verb devenir (to become) in the imperfect, but when she decided to switch to an alternative expression with être she began to reconsider her choice of aspect:

267. D: …elle devenait uh elle avait elle devenait fâché elle devenait elle a été she was becoming uh she was having she was becoming she was

268. elle était en colère quelle était la mieux? she was angry which was the better one?

269. M: well uh—

270. D: she became angry

271. M: she well uh do you want to use imparfait or passé composé how do you want to do it?

272. D: she became angry she was being angry she became angry that’s what I
274. want to say

275. M: right well um you could use the verb se fâcher [but would it change to be angry

276. sort of how you

277. D: (to self) it’s a verb]

278. M: you know what you’re emphasizing if you’re using imparfait or passé composé like um if you were saying just here a second ago she got angry

279. D: there was a definite point where she became angry so that would be passé composé

280. M: yeah

281. D: elle s’est fâché? Elle s’est fâché et uh juste après ça… she got angry? She got angry and uh just after that

In lines 268 and 270 Donna elicits feedback from M and provides a translation in English of the idea she is trying to express. She has already determined the meaning in English and she is aware that the aspect she chooses could alter that meaning. The problem may be due in part to the fact that the verb ‘to be’ is very often used to translate the imperfect into English (e.g., she was talking), and so students often experience difficulty knowing how to use this verb in past tense constructions.

M does not in fact answer Donna’s question but instead limits his response to simply asking which aspect she would like to use, attempting in this way to help her consider the difference in meaning between the passé composé and the imparfait. Continuing to use English to mediate her focus on meaning, as she and M had done frequently during the enrichment program, Donna offers two versions of the statement, one using the PP and the other the imperfect. In this way, the learner illustrates that she
does indeed understand the changes in meaning that result from both forms. Once she has settled on the PP, M then addresses her lexical choice of the verb *devenir*, suggesting instead the more common *se fâcher* (to be angry) in line 275, and Donna can be heard making a mental note that the adjective form *fâché* she had used earlier also exists as a verb. Before moving on, M ascertains whether Donna also understands how her choice impacts upon the portrayal of events in the story. In lines 273 and 274 Donna explains her decision, describing her choice as emphasizing the change in the character’s state of being.

In this instance, M’s role was that of a sounding board as Donna considered the linguistic structure she needed. It was Donna who constructed the meaning and, based on her understanding of tense and aspect, selected the PP to link the events in the narrative. Of course while Donna’s performance here was largely independent, it is not certain how she would have performed had the opportunity to interact with M been removed. That is, simply having M present appears to have made a difference for Donna. This finding is supported by Aljaafreh and Lantolf (1994), who argue that a learner performing a task in isolation is qualitatively different from that individual engaging in the same task in the presence of another person, even when the latter is not overtly providing any interaction (p. 471). According to the authors, both activities are social from a Vygotskian perspective but only the latter activity is collaborative. This is so because the presence of another person results in a “collaborative posture” whereby the learner’s orientation to the task shifts. The expectation is no longer that the learner will work independently but will be able to interact, the partner’s presence “represents the minimal form of otherderived help available to the learner” (ibid.). In the example involving Donna
described above, M was not needed to lead her to a correct response or provide hints to help her form the target structure; instead, he served as an interlocutor to whom she could ask questions, even though she ended up providing the answers herself.

An additional example of a similar interaction occurred during Donna’s first transfer session, as she narrated a scene from *The Pianist* in which the protagonist eludes German soldiers:

284. D: il savait bien qu’il y a quelqu’un qu’il y avait quelqu’un qu’il y avait
    he knew well that there is someone that there was someone that there was

285. quelqu’un dans l’atelier mais le soldat ne peut* trouver donc tout à fait—
    someone in the attic but the soldier can’t find therefore completely

286. M: il savait bien qu’il y avait quelqu’un dans l’atelier mais il?
    he knew well that there was someone in the attic but he?

287. D: il ne pouvait pas trouver il ne pouvait pas le trouver, c’est mieux que il
    he couldn’t find he couldn’t find him, that’s better than he

288. n’a pas pu le trouver?
    couldn’t find him?

289. M: I guess it depends on the meaning right? il ne pouvait pas trouver or il

290. n’a pas pu trouvé either is grammatical…

291. D: je peux faire l’imparfait je crois
    I’ll do the imperfect I think

292. M: alright

293. D: il ne pouvait pas trouver—
    he couldn’t find

294. M: you see the difference in meaning between the two?

295. D: well he couldn’t find him and then he stopped looking for him would

296. be the passé composé l’imparfait would be he couldn’t find him but

297. there’s no it doesn’t imply a time when the soldier stopped looking for
M: right so it kind of like depends I think on what you follow it up with

Donna initially used the verbs *savoir* (to know) and *avoir* (to have) in the past but then slips into the present in line 285 with the verb *pouvoir* (to be able to). M interrupts to request that she repeat that part of her utterance, and when Donna complies she changes her present-tense construction with *pouvoir* to the past, but vascillates between the PP and the imperfect. She requests further assistance from M who, rather than answering that one is better than the other, reminds her that her choice is necessarily linked to meaning and that either aspect can be used with *pouvoir*. Donna settles on her first choice, the imperfect, and when asked to verbalize her reasoning, she explains in lines 295 to 298 the different implications for the story of using one aspect over the other. Again, M’s reduced role in all this must be stressed. Donna’s performance in both these episodes provides evidence of her conceptual understanding of tense and aspect and her conscious control over these throughout her narratives. Her performance though is not completely independent, as she continues to look to M for guidance. Her performance at this point is primarily being mediated by the presence of another, as she uses this as an opportunity to pause and reconsider the meanings she is expressing.

8.3.2 Verbalization and online reasoning

In other instances, the learners were functioning somewhat less autonomously, but by talking about the narrative and their use of French they were able to think through specific linguistic forms and arrive at more appropriate selection relaiive to the meaning they wished to convey. These verbalizations were usually, although not always, brought about by a request for clarification or explanation from M. In these exchanges, M was
not asking leading questions, providing hints, or offering explanations. Of course, as discussed above, his presence no doubt affected the learners’ orientation to the task. However, at the overt level, his primary contribution was to encourage the learners to reflect on their performance. In most instances, this form of “talking it out” helped the learners to arrive at a more appropriate response.

Swain and Lapkin (2002) have also noted the pedagogical value of verbalizations about a particular task difficulty as a step toward problem solution. They have referred to this phenomenon as “talking it through.” Working within a Vygotskyan theoretical framework, these researchers argue that the dialogue that emerges between learners as they engage in an instructional activity can be viewed as an externalization of thought, which in its spoken form is more easily scrutinized. Following Gal’perin’s recommendations for the various stages of internalization, Swain and Lapkin suggest that, within the domain of language learning, externalization of thought can facilitate learners’ comprehension of language form and lexical choice (p. 285). In their work with French immersion students, these authors have observed dyads engaged in collaboratively analyzing written narratives in the L2 and found that the learners’ discussions of the linguistic forms led to improved individual performance on subsequent assessments. Appel and Lantolf (1994), in their study of language learners’ recall and comprehension of written texts, also point to the self-mediational quality of verbalizations in the L1 and L2. Situating their work within a broader discussion of private and social speech, they point out that complex problems often result in individuals relying on verbalizations to mediate themselves as they complete the task. Interestingly, the authors cite a study by O’Connell (1988), who noted that the 19th Century German
writer Heinrich von Kleist made a similar observation about the powerful role of speech in resolving problems. In one of von Kleist’s revealingly titled stories, *On the Gradual Working Out of One’s Thoughts in the Process of Speaking*, one character advises another on a useful method for understanding a situation: find someone who will listen as you describe the matter in detail (Appel & Lantolf 1994: 438).

The following excerpt from Amanda’s second DA session illustrates von Kleist’s argument about the importance of telling another person about a problem or difficulty as a means of resolving it. Amanda has used the verb *être* (to be) in the *passé composé*, but she reconsiders this choice while formulating an explanation for M:

300. A: et um Samuel lui a demandé um si sa femme Christine a été* and um Samuel ask him asked um if his wife Christine was

301. enceinte um quand elle est partie pregnant um when she left

302. M: que sa femme? That his wife?

303. A: a été enceinte was pregnant

304. M: a été using passé composé because it was?

305. A: because it was if she was pregnant when she left so at that time (…)

306. M: right

307. A: it would be était enceinte was pregnant

308. M: yeah I think était enceinte because it's we're not really about the

309. beginning or the end or something it's just if she was pregnant or not

It is in responding to M’s request for an explanation that Amanda pauses and considers the explanation she is giving and what she knows about aspect. While she is thinking, M
acknowledges her explanation in line 306, and Amanda connects the meaning she is trying to express to the form that will allow her to do so, settling on the imperfect of être, which she produces correctly in line 307.

A similar example occurred during Donna’s second DA session. In this instance, she was trying to explain that the character Samuel was shocked to learn that his wife was pregnant. Initially, in line 558, she oscillates between the imperfect and the PP of être and M interrupts to determine which aspect she believes is most appropriate and why:

310. D: …en train de compter dans un livre tout à coup elle a dit à Samuel ah in the process of counting in a book all of a sudden she said to Samuel

311. bon je suis enceinte et Samuel était très choqué a été choqué était choqué well I am pregnant and Samuel was very shocked was shocked was shocked

312. M: which one?

313. D: (laughs) okay

314. M: était, a été?

315. D: c’était un choque à lui cette nouvelle donc il était choqué et ça juste it was a shock to him this news so he was shocked and that just after

316. après ça— that

317. M: il était choqué— he was shocked

318. D: il était choqué à cause de cette nouvelle he was shocked because of this news

319. M: okay, using imparfait

320. D: using imparfait

321. M: because?

322. D: parce que il était choqué he was shocked he started to be shocked and
continued to be shocked by this news but I think I first chose passé
composé to note that at a very distinct point he started to become shocked
M: so emphasizing that?
D: right so maybe what I want to say is il a il a été choqué
M: and I think if you were to add something like par ces nouvelles [by this
news you know
D: par ces nouvelles]
Both aspects are frequently used in such constructions. Consequently, M accepts
Donna’s use of the *imparfait* but questions her reasoning. The explanation that she
provides M leads her to reconsider her initial decision as she realizes that the PP more
appropriately expresses the meaning that the character ‘became shocked.’ Once again,
the decision of how to portray the events in the narrative rests with the learner. M’s
contributions encourage Donna to reflect on the most appropriate linguistic form that will
allow her to express this meaning. The performance, then, is still distributed, as Donna
continued to be mediated by M. However, this mediation is not aimed at pointing out an
error and helping the learner to correct it. Instead, Donna has taken on enough
responsibility for the performance at this point that her dialogue with M now serves to
help her step back from the narrative and consider the changes in meaning that result
from the PP and the imperfect, and this better positions her to decide which form matches
the meaning she is constructing.

### 8.4 Conclusion

As discussed in chapter 2, Vygotsky (1998) argued against the general view that the
purpose of assessment should be to *measure* an individual’s knowledge or abilities.
Instead, his suggestion that we interpret abilities captures the idea that assessments should be concerned with explaining the underlying causes of an individual’s performance. Of course, the kind of explanation Vygotsky had in mind only emerges from the interaction between mediator and learner, and this interaction also brings about development. Thus, this chapter and the previous one together illustrate the double-sided coin metaphor that Lantolf and Poehner (2004) have used to describe dynamic assessment: DA at once assesses and promotes development. Chapter 7 focused on tracking learner development through the mediated assessments while the present chapter examined the various insights into the learners’ abilities that would have remained hidden without flexible mediator-learner interaction. It was argued that in some cases the extent of a learners’ problem only became apparent when they were pushed by the mediator to provide explanations for their choices. In other cases, it was found that learners’ comprehension of the tense-aspect relation exceeded their independent performance, since they were able to greatly improve with very little mediation. It should be clear that for the participants in this study, a very different picture of their abilities emerged from their dynamic assessment in comparison with their static assessment. The consequences of this information for teachers, learners, and other assessment stakeholders are considerable. The various decisions that are made about learners’ futures on the basis of assessments are all too familiar – acceptance into programs, allocation of funds, teacher accountability, placement in courses, awarding of scholarships, etc. DA has the potential to make those decisions better informed and, ultimately, to challenge the belief that only some learners can succeed, replacing it with the reality that all learners can succeed when offered appropriate mediation.
CHAPTER 9 – CONCLUSION

9.1 Summary of the Study

This dissertation represents the most extensive reporting of Dynamic Assessment principles in a L2 learning context to date. As described in chapter 3, very little work has been done on L2 learning from a DA perspective, although the recent appearance of several studies (Schneider & Ganschow 2000; Grigorenko, Sternberg, & Ehrman 2000; Kozulin & Garb 2002; Antón 2003; Lantolf & Poehner 2004; Poehner & Lantolf 2005) suggests that this is becoming an area of interest for both applied linguists and DA researchers. The present study follows Lantolf and Poehner’s (2004) reasoning that DA can optimally promote learner development through application of a clinical methodology, as called for by Vygotsky (1956, 1998) with regard to the ZPD, in which mediator and learner collaborate to perform the assessment task. To that end, this dissertation contributes to the L2 DA literature by devising and implementing a DA procedure with advanced undergraduate university students of L2 French.

In this study, DA was instantiated within the context of a pedagogical task, rather than during the administration of a formal test. This has direct implications for classroom practices, where teachers’ assessments of learning are often high-stakes but lack systematicity (Rea-Dickins & Gardner 2000) and tend to be guided by affective concerns for learners rather than by a theoretical understanding of development (Torrance & Pryor 1998). The present study builds on the recommendations of Poehner and Lantolf (2005) and provides empirical support for their claim that DA principles can make classroom formative assessment practices more effective by providing assistance that is continually tuned and retuned to learners’ needs. The inclusion of interaction brought to light the
extent of learners’ understanding and control over linguistic forms and their relation to meaning, and also helped with the identification of problems underlying poor performance. Evidence was also presented to suggest that interaction provided an opportunity for these problems to be addressed and for learners to develop. The central claim of the study, then, is that the dynamic procedures unified instruction and assessment as a single activity, with the result that both mediator and learner came to better understand the latter’s abilities, and this positioned both of them to optimally promote those abilities through sustained interaction. The fact that the learners themselves arrived at a greater awareness of their abilities, as evidenced by the verbalization data, is especially important. To my knowledge, this point has not been discussed in the DA literature. However, it is an excellent illustration of Vygotsky’s (1986) argument that the goal of instruction should be to render the invisible visible. Mediation led not only to improved performance but also to learners’ enhanced understanding of the processes underlying that performance. For Vygotsky this is a necessary for increased self-regulation.

The following section reviews the evidence on which preceding claims are based. The research questions that guided this study are presented again and serve to frame the discussion, with particular attention given to how these questions were explored and to how the various findings were formulated. The discussion then turns to issues related to the study’s design and data analysis and to subsequent limitations that should be addressed in future research. The remainder of the chapter considers specific areas of research that should be pursued if DA is to realize its potential in applied linguistics.
9.2 Review of Findings

It will be recalled from the first chapter that this study set out to answer four questions concerning the effectiveness of applying a DA procedure to L2 learning. The first question dealt with the information gleaned from the dynamic assessments:

*How do the results of a dynamic assessment of L2 abilities differ from the results of an assessment that is not dynamic? In particular, does the dynamic procedure add to our understanding of the individual’s knowledge of and ability in the L2? In addition, how did DA enhance the learners’ understanding of their L2 knowledge and abilities?*

Substantial insights into learners’ abilities were gained through their interactions with the mediator. In some cases, the dynamic procedures indicated that an assessment of independent performance only would underestimate learners’ level of development while with other learners the reverse was true – the mediated interactions were actually more effective at revealing the extent of learners’ difficulties. The contrasting examples of Amanda and Nancy illustrate this point nicely. Both learners made very little use of imperfect aspect during their independent performances, relying instead on the present tense and the PP. Thus, phenotypically, these learners appeared quite similar. However, through interaction with the mediator, it was revealed that these observable behaviors stemmed from very different underlying sources: Amanda had forgotten that the imperfect was an option, and once reminded she was able to use the forms with some degree of accuracy. Nancy, on the other hand, was deliberately avoiding these forms because, by her own admission, she did not understand the difference between perfective and imperfective aspect. Clearly these two learners did not have the same level of ability. In Vygotsky’s terms, the difference concerned their zones of proximal development.
Their differential responsiveness to mediation is indicative of the distance they needed to traverse on their way to independently controlling verbal aspect. In this case, Nancy had much further to go than Amanda, although, as discussed below, Nancy made considerable gains as a result of her interactions with the mediator. That is, she learned through the assessment.

It must also be pointed out that the DAs helped the mediator identify additional problem areas that were not apparent during the SAs. For instance, while addressing Donna’s choice of aspect, the mediator realized that she was unable to correctly produce the PP forms of pronominal verbs. Donna had not tried to produce these forms during SA and only attempted to do so when encouraged by the mediator during DA. The flexible interactions during DA meant that the mediator was free to explore learners’ level of understanding of the linguistic features in question and could also pursue other issues that arose, which could not have been predicted beforehand. Bearing in mind that any assessment is a sampling of individuals’ abilities, one can see that a dynamic procedure has great potential to investigate both the depth and breadth of these abilities.

Before moving on, there is an additional component of this research question that must be addressed. This question was reformulated after analysis of the data in order to include within its scope a form of development that had not been foreseen at the beginning of the study: learners’ growing awareness of their control over verbal aspect and of the kinds and amount of support they needed from the mediator. This was an unexpected result of mediation that, as pointed out earlier, has not been discussed in the DA literature. In retrospect, this finding is not all that surprising, given that Vygotsky (1986: 166-167) defines development as conscious awareness, which implies both
awareness and regulation of cognitive functions. Indeed, Negueruela’s (2003) work, though not within a DA perspective, also shows that learners became increasingly aware of their abilities as a result of mediation. In the present study, learners’ enhanced self-awareness was especially evident in the shifts that occurred over time in their reciprocating moves. At time 2, the learners not only exhibited better control over tense and aspect, they also assumed greater control over their interactions with the mediator, actively seeking specific forms of mediation that would allow them to complete the task. For example, during Amanda’s DA2 the majority of her reciprocating moves involved ‘incorporating the mediator’s feedback,’ ‘using the mediator as a resource,’ and ‘overcoming problems.’

A related finding concerns the increase of learners’ attempts to self-correct at time 2. The contributions to performance that were made by the mediator during the earlier assessments – offering feedback on performance, questioning learners’ orientation to the task, providing clues and hints – were to some extent taken over by the learners during the latter assessments. There was thus a marked change in both learners’ awareness of how to appropriately mark tense and aspect (e.g., selection of auxiliary verbs, formation of past participles, conjugation of irregular verbs) as well as their understanding of the effects of their aspectual choices on how events in the narrative are represented. This is further supported by analysis of learners’ verbalizations, which reveals that following enrichment, they were better positioned to step back from their narrative and to consider multiple ways in which they could bring the story’s events into discourse. A striking example occurred with Sara as she negotiated a relationship between two events during DA2, considering the effects of using the plus-que-parfait rather than the passé composé.
and imparfait. She reflected on her performance, considered alternative ways of portraying the events, discussed these with the mediator, and ultimately returned to her initial choice. From a Vygotskian perspective, such changes in learners’ awareness of their performance are a clear sign of development.

The second question involved development within the DA sessions:

To what extent can the interactions during a dynamic assessment that help learners to perform beyond their current level of ability actually promote their development?

The learners’ verbalizations are particularly important in this regard, as these brought to light how learners oriented themselves to problems that arose and the basis on which they made choices. As mentioned above, Nancy provides especially compelling evidence that the assessments themselves can bring about development. Nancy did not participate in the enrichment program, and it was ascertained through discussion with the learners that the passé composé-imparfait distinction was not addressed in the Advanced Oral Communication class, which was the only French course Nancy was enrolled in during that semester. While one cannot rule out the possibility that Nancy’s interactions in and out of her class may also have contributed to her development, it is safe to conclude that the change in Nancy’s performance at time 2 is, in large measure, the result of her interactions with the mediator during DA1.

During her initial DA session, Nancy’s admission that she did not understand when to use the passé composé and the imparfait prompted the mediator to provide a brief explanation. Importantly, the mediator’s presentation was based on the linguistic concept of verbal aspect rather than the rule-based explanation that typically accompanies discussions of these forms in pedagogical grammars. Despite the brevity of this
exchange, Nancy’s subsequent verbalizations regarding her choice of aspect during that session showed signs that she had internalized, to some degree, an alternative way of selecting these forms. Indeed, her comments during DA2 suggest that a new, more conceptual understanding of aspect co-existed with her earlier, rule-based view of the passé composé and the imparfait. Although she still made errors, she had begun to develop better control of these forms. Thus, DA did much more than to assess abilities that were already formed; it actively helped those abilities develop by unifying assessment and instruction as one activity.

The third question was concerned with individualizing instruction:

How effectively can the insights into learners’ abilities gained from the dynamic assessments be used to develop an enrichment program that tailors instruction to the individual’s abilities and that addresses areas in which learners experienced difficulties?

In some approaches to DA, the assessments that precede and follow intervention are administered in a static manner. Such approaches are ‘dynamic’ in that they take account of pre-test-post-test differences rather than simply reporting the outcome of a single administration of the assessment. Budoff’s Learning Potential Measure typifies this methodology. Other DA researchers, such as Feuerstein, only administer dynamic assessments, arguing that static procedures do not reveal the underlying sources of poor performance and only reinforce learners’ frustrations with assessment. In the present study, both static and dynamic assessments were used prior to, and following, enrichment. SA1 and SA2 made clear the products of development; that is, these assessments pinpointed what learners were able to do independently at the outset and
conclusion of the study, although as argued above several crucial insights into learners’ abilities were gained only through interaction during DA.

From a research perspective, SA1 and SA2 were important because they provided evidence of the enrichment program’s effectiveness by exploring whether learners performed differently at time 2. Pedagogically, these assessments were of limited value. This is because they functioned as summative rather than as formative assessments, and as such merely provided ‘snapshots’ of learners’ functioning without illuminating the processes of development. Only through interaction with learners can one understand how they are orienting to the object of learning, such as verbal aspect and how close they are to independently controlling the relevant linguistic features in oral production. The strength of DA is that assessment and instruction are fully integrated, and so the initial DA procedure served to ‘open-up’ a ZPD in which mediator and learner collaborated during enrichment. Indeed, in practical application this means that by observing the cooperative dialoguing between mediator and learner, one cannot tell whether it is a DA or an enrichment session. To return to a familiar metaphor, assessment and instruction from this perspective are two sides of the same coin. The collaborations during DA reveal how close learners are to independent performance and the forms of mediation to which they are most responsive. These insights serve as the starting point of the enrichment program but they by no means constrain future interactions, since working in the ZPD requires constant negotiation of mediation. In this regard, DA may be thought of as the first enrichment session, or the enrichment program may be seen as an ongoing DA.
During DA, the tasks were the same for all learners but the mediation that was provided differed from individual to individual. Similarly, the enrichment work with all the learners focused on aspect, and the same tasks and supporting materials were used with each of the participants during the program. Nevertheless, as with the DA sessions, enrichment was individualized in that it was structured according to the ongoing, collaborative interplay between mediator and learner. The effectiveness of this kind of enrichment can be understood through a comparison of learners’ performances prior to and following the program. The static assessments administered at these two points captured participants’ independent abilities, and analysis of the dynamic assessments revealed the kinds of support learners needed to move to a higher level of functioning. While the initial static assessments were characterized by frequent slips from the past tense into the present and confusion over the selection of aspect, these errors were far less frequent following enrichment. In fact, after enrichment the learners generally made more appropriate use of both present and past tenses and were able to use the passé composé and the imparfait more effectively to establish relationships among the events in their narratives. Of course, in neither SA1 nor SA2 did learners perform with complete accuracy and appropriateness. The crucial point is that they showed greater control over the linguistic features that were targeted by the enrichment program during SA2. Additional insights into learners’ development were gained through analysis of their interactions with the mediator.

During the DAs, there was a general shift over time regarding the moves made by the mediator to assist the learners. Prior to enrichment, mediation was relatively extensive, with learners requiring very specific clues. In some cases, hints and
suggestions were not sufficient and instruction moved to the fore, with the mediator supplying correct answers and even explanations. In DA2, two trends were found: 1) learners continued to require a variety of forms of mediation but there were overall fewer moves made by the mediator, indicating that the learners encountered fewer problems that they were unable to overcome on their own; 2) the frequency of mediational moves remained constant but their quality changed, moving from explicit to more implicit in nature, which once again suggests that learners were better positioned to address difficulties without relying as much on the mediator. For one learner, Jess, the mediator’s interventions were fewer as well as less explicit during the second DA. These changes in the mediation over time are an important indicator of development. To be sure, the fact that learners still required mediation after enrichment suggests that they were not able to fully control verbal aspect. However, a learner who requires extensive interaction, including various hints and prompts, in order to produce an appropriate form is clearly at a different level of development from a learner who simply needs to be reminded of the task’s directions.

Similarly, with regard to learners’ reciprocity during the mediated assessments, there were more instances of learners incorporating the mediator’s feedback, attempting revisions, and overcoming problems after the enrichment program. Taken together, these changes in mediation and reciprocity suggest that learners had internalized their earlier interactions with the mediator, and the functions that he had once directed were now primarily under the control of the learners themselves. The learners had developed to a point where they were able to function more autonomously, mediating themselves rather than relying on interaction with the mediator. Further evidence for learner development
is found in their verbalizations regarding their selection of linguistic forms. Here the general tendency was movement from differentiating aspe... rules in the earlier sessions to a more theoretical understanding of aspect and its impact on meaning in the later sessions.

The final research question had to do with learners’ ability to transfer their learning to novel situations:

*Do any changes that occur in the participants’ performance during the course of the enrichment program carry over to tasks beyond those used for the assessments? In other words, if learners genuinely develop, they should be able to maintain their improved performance when the task changes.*

The significance of this question is that it gets at one of the fundamental issues in DA: the distinction between task-specific *training* and *mediation* for development. Of course, some DA researchers, notably Budoff, have used the term ‘training,’ and this choice of terminology is not accidental. Budoff’s principle concern is that traditional assessments disadvantage certain groups of learners by underestimating their ability to learn, and so his interventions aim at training learners to score better on specific standardized intelligence measures (Budoff & Friedman 1964, Budoff 1987). The contextually-bounded nature of Budoff’s ‘training’ has much in common with the notion of scaffolding. Wood, Bruner, and Ross (1976) first proposed the term scaffolding to capture the idea of a teacher or other expert assisting a child’s performance of some task that the child cannot do on his own. Superficially, this may resemble interactions in the ZPD. However, as Chaiklin (2003) observes, the fundamental difference between the ZPD and scaffolding is that the latter is not connected to a theory of development.
Instead, scaffolding aims to help learners ‘get through’ a given task, and consequently may have little or no impact on development. As Poehner and Lantolf (2005) argue in their analysis of scaffolding in formative assessment, scaffolds are a means through which teachers can compensate for abilities their students have yet to develop but that are necessary for completion of the task at hand. Unlike working in the ZPD, scaffolding does not target ripening abilities nor does it attempt to foster the development of new cognitive functions (Valsiner & van der Veer 1993: 50). In other words, scaffolding does not distinguish between those abilities that are ripening and those that are non-existent.

Approaches to DA that are in line with Vygotsky’s understanding of the ZPD stress the importance of recontextualization of cognitive functions – that is, true development extends beyond the confines of the assessment and characterizes performance in various contexts. From this perspective, the focus of DA shifts from the improvement of test scores to the development of learners’ abilities. Elliott (2003: 20) makes a similar observation by likening the approach of some DA practitioners to medical models of diagnosis. He suggests that some educators and psychologists, believing that proper “treatments” can only be administered when the patient/learner has been correctly “categorized,” have expended considerable effort to develop procedures for the selection and classification of students, effectively addressing the question, how can we best categorize this individual? The more important question, is how can classroom teachers be helped to tailor instruction to the needs of their students?

DA researchers such as Brown (Brown & Ferrara 1985) and Feuerstein (Feuerstein, Rand, & Hoffman 1979) have included as part of their procedures tasks that differ from those originally encountered by the learners in order to understand the extent
to which learners have developed. Importantly, the tasks used in these transfer assessments do not simply parallel those used in the original assessment, but are instead more complex. This notion of development transcending (Feuerstein, Rand & Rynders 1988) the assessment was addressed in the present study through analysis of the learners’ performance during two transfer sessions that followed the enrichment program.

Important differences in learners’ performances emerged during these sessions, paralleling the finding of Campione and colleagues (Campione et al. 1984), who report that all learners improved on the assessment task following mediation but that some were more successful than others at transferring their abilities to more complex tasks. In the present study, some learners, such as Jess, moved beyond needing assistance from the mediator, having developed the ability to self-regulate and thereby perform more independently. For such learners, control over verbal aspect had shifted from their Zone of Proximal Development to their Zone of Actual Development. That is, they were able to mediate their own performance through their conceptual understanding of verbal aspect, and they no longer required additional support from the mediator.

Amanda and Donna, on the other hand, found the transfer tasks more difficult, and continued to some extent to rely on interaction with the mediator to complete the tasks. Interestingly, in some cases the form of mediation these learners needed was more implicit than it had been earlier, taking the form of feedback to let them know they were doing well and to encourage them to continue. In such cases, the locus of control over the performance was predominantly with the learners, suggesting that they, too, were very close to complete independence from the mediator. Of course, successful completion of a task requires not only a good plan but also the ability to carry out that
plan and to evaluate the performance. Talyzina (1981: 62-63) describes Gal’perin’s conceptualization of human action as consisting of three components: orientation, execution, and control. Orientation refers to knowing which conditions and resources are necessary for executing the action and ascertaining whether they are present; execution entails deploying those resources in order to achieve a goal; and the control component involves monitoring the execution of the action and evaluating the outcome. Thus, following enrichment Amanda and Donna successfully oriented and executed their narrations, making appropriate use of verbal tense and aspect, but still relied on the mediator to assist them during the control component by providing an evaluation of their performance. In other words, these learners had developed to a point where they assumed responsibility for most – although not all – of their performance.

9.3 Limitations of the Present Study

In addition to the analyses described above regarding the effectiveness of the DA procedures other potential insights were not reported in this dissertation due to methodological issues that only became apparent in the later stages of analysis. Chief among these is the learners’ control of tense and aspect during the DA and transfer sessions. When the transcripts of these sessions were coded, instances in which learners independently produced a verbal form were not differentiated from those cases when the mediator and learner jointly arrived at a form. In other words, a form such as *Elle a dit* would have been coded for ‘past tense,’ ‘perfect aspect,’ ‘correct formation,’ and either ‘appropriate’ or ‘inappropriate usage’ (depending upon the context). However, no code was assigned to indicate whether learners had produced it on their own or with assistance from the mediator. This oversight is due to the fact that the coding of data began with the

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static assessments – in which this kind of distinction is irrelevant because the learners received no support from the mediator – and was simply carried over to the coding of the mediated assessments.

Having counts of learners’ mediated and non-mediated production of verbal forms in each session would provide additional insights into their development. The picture of learners’ abilities that emerged from a close reading of the transcripts provides evidence of development at a macro level. As discussed above, this analysis illuminated changes in learners’ orientation, execution, and control of their performance, both over time as well as within a single assessment session. At the micro level of performance, which concerns each instance of the relevant linguistic features during every assessment, development was discussed in terms of mediational and reciprocating moves. Providing counts of learners’ mediated and non-mediated use of tense and aspect would further elaborate development at the micro level, revealing for example shifts in the focus of mediation (e.g., formation of the passé composé during the first part of an assessment and use of the PP during the second part). Considering the data from this more micro perspective is necessary for future research.

Another related issue concerns the non-enrichment participants. Nancy and Elaine did not participate in the enrichment program but instead underwent the static and dynamic assessments preceding and following the program. In this way, attributing learners’ improvement to the enrichment program (rather than to their participation in the Advanced Oral Communication course) could be addressed: if both the enrichment and non-enrichment learners made the same gains then one could not conclude that it was the enrichment program that led to development.
Analysis of the post-program DAs revealed that Nancy, in particular, had benefited from her earlier interaction with the mediator. She exhibited greater control of the linguistic features, and her verbalizations indicated that she had internalized at least parts of the mediator’s explanations and that she was beginning to develop a more conceptual understanding of verbal aspect. Unfortunately, the non-enrichment learners did not take part in the transfer assessments, and so one cannot know whether Nancy would have continued to develop and how well she would have performed on these different tasks. While it is true and not surprising that neither Nancy nor Elaine made the same gains that the enrichment learners did, analysis of these two learners’ performance during the transfer assessments could have led to a different view of their abilities. In fact, Nancy’s improvement after DA1 leads one to wonder if she and Elaine also made gains through DA2, and how this may have manifested itself during the transfer assessments. Future research must take account of the fact that non-enrichment learners may develop through DA and may, therefore, have abilities that can be ‘transferred’ to other contexts. In fact, this methodology has already been used in Brown’s *Graduated Prompt Approach*, where learners are not provided enrichment but receive mediation during DA and then engage in a series of transfer assessments.

One final matter to be addressed is the reporting of results from a DA procedure. This is not so much a shortcoming of the present study as it is a recognition that some of the procedures reported here will likely need to be adapted if they are implemented in a classroom setting. Specifically, the use of DA in this study did not result in scores, grades, or rankings of any kind. Instead, the understanding of the learners’ abilities emerged from careful analysis of the transcribed assessment sessions. Pedagogical
concerns were, of course, central to the study, but the assessments themselves did not have any impact upon learners’ course grades, eligibility for a scholarship, candidacy for enrollment in a program, etc. The assessment results, then, did not need to be reported in a manner typically expected of classroom teachers. Of course, this study was framed as a formative assessment, and such assessments often do not produce the same kinds of results as formal tests (see Torrance & Pryor 1998). Nevertheless, some approach to systematically capturing the insights gained through DA, either as a grade, profile, score, or report, should be developed so that classroom teachers may avoid the inappropriate evaluations of learners that arise from haphazard record keeping (Rea-Dickins & Gardner 2000: 238). By understanding the results of DA, teachers can attune their instruction to learners’ developmental needs. Indeed, Tzuriel (1992) points out that while DA procedures may uncover potential that static assessments do not, if appropriate and meaningful intervention does not take place learners may never develop their abilities.

In the present study, there was no need to generate scores or grades because the procedures focused on understanding and promoting learners’ development. Thus, descriptions of learners’ use of verbal tense and aspect and their interactions with the mediator were regarded as a more valuable approach to interpreting, as Vygotsky would say, individuals’ abilities. In a classroom setting, these analyses could be used to generate profiles of each of the learners, highlighting the errors they made, the forms of mediation that were used, and their reciprocal moves. Indeed, this kind of qualitative reporting is advocated by proponents of Feuerstein’s MLE model (e.g., Peña & Gillam 2000; Lidz 1991; Karpov & Gindis 2000).
While translating learners’ performance into scores is also advocated by many DA researchers, especially those working in an interventionist tradition (e.g., Brown’s *Graduated Prompt* approach and Guthke’s *Lerntest*), the creation of instruments and the standardization of procedures required to produce results that meet psychometric criteria of validity and reliability may well exceed the knowledge and resources of many classroom teachers. However, the development of a rubric for assessing DA performance might be a viable alternative for teachers wishing to assign grades. Such an approach would help teachers to easily share results with students, administrators, and other stakeholders as well as allow them to quickly chart learners’ performance over time. Future research into the use of DA in classroom settings will want to address this issue in greater depth.

**9.4 Directions for Future Research**

Given the very small but growing literature on L2 DA, several areas of research are opening up that need to be pursued if we are to fully realize DA’s potential contributions to both our understanding of L2 development as well as our L2 pedagogical practices. Although DA has been researched in psychology and education far longer than in applied linguistics, these disciplines are currently considering similar issues regarding applications of DA. Four of the issues are discussed below. The first two – computer-administered DA and peer-to-peer mediation – have direct implications for L2 teaching, assessment, and learning. The third proposed topic of research falls not within SLA but in a broader conceptualization of applied linguistics that includes the study of elderly populations. Here, DA interventions focus less on cognitive development – although this is certainly a possible outcome – and more on forestalling cognitive decline, particularly
among individuals with Alzheimer’s and other forms of dementia. The discussion then turns to reflection on the social agenda of DA.

9.4.1 Computerized Dynamic Assessment

While computer-based tests are increasingly common, DA researchers have only recently begun to explore the possibility of electronically delivering mediation. To be sure, such mediation would be limited in the degree to which it could be attuned to learners’ needs. In this way, computerized DA (CDA) faces the same challenge as all interventionist approaches: one cannot know how learners would respond if other forms of mediation were offered. Nevertheless, CDA has several distinct advantages, including the following: it can be simultaneously administered to large numbers of learners; individuals may be re-assessed as frequently as needed; reports of learners’ performances are automatically generated. One can easily imagine assessment contexts in which these advantages outweigh the constraints on mediation (e.g., screening of applicants for admission and placement purposes).

To date, only a few applications of CDA have been reported in the literature. Tzuriel and Shamir (2002) developed a CDA procedure for the assessment of kindergarten children’s seriational thinking abilities – a domain which they note has been linked to subsequent performance in mathematics (p. 23). In their approach, children are presented with a series of shapes and asked to differentiate them according to one of three dimensions: size, color, and darkness. With each task, new figures are provided and the criterion for sorting them is changed. The mediational component of the procedure combines interactionist and interventionist DA through “human-computer collaboration” – the computer supplies a series of hints arranged in order of increasing explicitness.
while the examiner is also free to interact with the children, providing additional help that is more attuned to their needs (p. 30). Thus, the children receive immediate feedback from animated characters who guide them through the assessment, and the human examiner may interpret this for the children and even address other aspects of their performance that go beyond the computer program (p. 24).

At present, the researchers have only reported the results of one study using this assessment. Tzuriel and Shamir (2002) contrast the gains made by learners who had both computerized and human mediation available to them with learners who received only human support. Perhaps not surprisingly, they found that the learners provided with both forms of mediation benefited the most. The authors concede that these greater gains may be attributable to the quantity of mediation they received (p. 30). Unfortunately, they do not report the kinds of mediation the examiner provided to the two groups of learners, particularly whether the quality of human mediation varied when the computer was available. It is also important to note that the authors did not include in their design a group of learners who were given only computerized mediation, and so the effectiveness of the program without “human-computer collaboration” is not known.

In the domain of language learning, Jacobs (1998, 2001) reports on the use of a program known as KIDTALK (Kidtalk Interactive Dynamic Test of Aptitude for Language Knowledge) in which pre-school and school-age children are led through a series of computer-based activities designed to assess their language aptitude. The program presents children with samples from an invented language based on Swahili that the researchers refer to as “Kidtalk.” These presentations are conducted through videos involving puppets who introduce vocabulary and model morphological rules. After the
initial training phase, the children are administered the computerized KIDTALK assessment, which requires them to use their knowledge of the invented language to answer a series of questions. Jacobs (2001) reports that earlier versions of this assessment have been revised according to DA principles. She argues that the procedure is now dynamic because, when children miss a question, the computer automatically takes them back to the relevant segment of the training video and then gives them an opportunity to attempt the question again. If the child is still unable to respond correctly, this process is repeated. If on the third attempt the child still cannot answer the question correctly the computer skips to the next item on the test. Upon completion of the assessment, the computer generates two reports for each child. The first report assigns 1 point to every question the child answered correctly (regardless of how many tries the child made) while the second report provides a more detailed breakdown of the number of attempts the child took for each item (Jacobs 2001: 224).

Guthke and his colleagues have developed computerized versions of the Leipzig Lerntest (LLT) that function in a manner similar to KIDTALK. Guthke and Beckman (2000) explain that in its most recent form, the computerized LLT asks learners to respond to two items for each problem type (two items are given instead of one to minimize the possibility that the learner guessed correctly). If both items are answered correctly, the program skips to the next problem type. If, however, learners respond incorrectly to one or both of the items, a series of training tasks appear that are designed to help learners master the various components that comprise the complex test items. Interestingly, if learners succeed on earlier test items but fail on later ones, the program immediately takes them to the directly preceding set of training tasks. In some sense, this
is analogous to computer-adaptive testing, in which testing programs sequence questions according to a hierarchy of difficulty levels and gauge learners’ abilities according to the point at which their performance breaks down. However, unlike in computer adaptive tests, the computerized LLT not only pinpoints where in the sequence of questions learners experience problems, it also provides assistance so that they might learn from the procedure and move on to more difficult items.

Unlike KIDTALK, the computer-based LLT individualizes, to some extent, the mediation it offers by providing multiple routes that learners can follow through the test depending on the nature of the problems they experience. The researchers have identified various dimensions for the test items so that learners’ errors indicate which dimension they did not understand, and the training tasks then focus on that dimension. In addition, because all forms of mediation are standardized, Guthke and his colleagues argue that their procedure represents a compromise between clinical and psychometric concerns by sensitizing mediation to the learners’ needs while at the same time not sacrificing the test’s statistical properties (p. 42). Guthke has not reported any research that compares the computerized LLT with the paper-based, human-mediated version. As with non-computerized DA, the central issue in these procedures is the extent to which the assessment goals and the available resources permit individualized mediation. In some contexts, the compromise Guthke describes will no doubt be appropriate. In others, the human-computer collaborative format described by Tzuriel and Shamir will certainly be attractive because it further increases the possibility of working within individuals’ ZPDs. Language testing researchers will undoubtedly wish to explore both these models.
9.4.2 Dynamic Assessment and peer-to-peer mediation

Kaufman and Burden (2004: 108) observe that research in DA and the ZPD has traditionally focused on expert-novice relations and has neglected peer-peer interactions as a possible source of mediation. One might question how well a tutor lacking expert knowledge could appropriately mediate another learner. However, a number of studies suggest that peers can serve as effective mediators. For example, although not specifically framed as DA, the ongoing research of Swain and her colleagues (Swain & Lapkin 1998, 2000; Swain 2001) into L2 development highlights the substantial role of interaction between learners. Working with French L2 learners in immersion settings in Canada, these researchers observed pairs of learners engaged in pedagogical tasks. Their work shows that psychological processes become visible in the dialogue that occurs between learners as they mediate each other through tasks. For instance, Swain (2001: 288-289) points out that even in brief exchanges between students struggling with the production of a linguistic form, one can observe various mental strategies (e.g. inferencing, clarifying, linking to previous knowledge, etc.) that they use to mediate themselves and one another. In addition, Swain provides evidence that these interactions lead learners to formulate and externalize hypotheses, which they then collaboratively assess and build upon, eventually arriving at appropriate responses (p. 290).

Swain concludes that this kind of learner dialogue has several implications for language teachers and testers. The collaborations themselves, she suggests, capture

14 Two interesting exceptions are studies reported by Leont’ev (2002: 54) and Wertsch and Hickmann (1987). In the study described by Leont’ev slightly older children who did not have expert knowledge themselves served as near-peer tutors. When given the responsibility to help their younger peers, they became motivated to learn how to teach the steps needed to solve the problems. Unfortunately, very little detail is provided about the effectiveness of this approach. In Wertsch and Hickmann’s study, which also involved children mediating other children, the authors concluded that the peers were not effective mediators because they tended to solve the problems for their younger partners rather than with them.
learning as it unfolds in the dialogues (Swain 2001: 288), with the participants accomplishing together what they may not have been able to do individually. Moreover, because the interactions illuminate learners’ orientation to problems and their strategies for solving them, teachers can use this information to better plan instruction by addressing areas of weakness. Swain further urges test developers to consider administering tests to pairs or groups of students, as this would “more faithfully mirror regular, daily classroom and non-classroom activity” (p. 297).

Kaufman and Burden (2004) investigated the possibility of training young adults with moderate-to-severe learning disabilities to be mediators. These researchers report the results of an exploratory study in which learners with Down’s Syndrome, cerebral palsy, brain trauma and “unattributable brain dysfunction” participated in Feuerstein’s DA and IE program (p. 110). Over the course of a year, the learners were trained to take turns as tutors and tutees as they helped each other through the program. The intervention was begun by a trained mediator, who modeled appropriate behaviors and explicitly instructed the learners how to help one another. Gradually, the learners were given the opportunity to work in pairs and to take turns mediating each other. At the end of every session, the tutors were asked to explain to the group how they had fulfilled their role, and both the tutors and the tutees stated what they had learned (p. 111).

Unfortunately, Kaufman and Burden do not provide details of the effectiveness of the mediation the learners were able to give one another. They do, however, present the learners’ verbalizations in response to a series of reflection questions designed to uncover developments in their understanding of what is required to be a mediator. The learners’ comments suggest that they had internalized many characteristics of effective mediators,
although further research is needed to understand how these insights impacted their ability to function as tutors.

To some extent, the shortcoming of Kaufman and Burden’s work is addressed in a study reported by Shamir and Tzuriel (2002), who also explored the potential for peer mediation within Feuerstein’s approach to DA. These authors distinguish peer mediation from peer tutoring. According to Shamir and Tzuriel, peer mediation integrates cognitive and emotional components into the procedure; it is not limited to any given domain but is instead framed within MLE and therefore promotes the development of general learning abilities ("learning how to learn"); interactions are highly systematic, as they are guided by the theories of Vygotsky and Feuerstein; and one of the peers has greater expertise and therefore functions to mediate his partner, who must be willing to reciprocate these moves (pp. 371-372). This last point is an especially important departure from the work of Swain and of Kaufman and Burden, where the dyads were comprised of students with comparable levels of ability. Here, the roles of mediator and learner are more circumscribed, and indeed the mediators were taught how to implement MLE procedures and were instructed to find creative ways of helping learners whenever possible. In this way, peer mediation in Shamir and Tzuriel’s model parallels the traditional adult-child pairs described in the DA and ZPD literatures, although the authors argue that learners are generally more willing to cooperate with slightly older peer mediators than they are with adults (p. 372).

Noting that both Vygotsky’s and Feuerstein’s theories call for flexible interaction that is attuned to learners’ needs, Shamir and Tzuriel investigated whether training could improve peer mediators’ effectiveness at helping their partners develop. The researchers
found that the children who participated in the three week Peer Mediation with Young Children (PMYC) program did in fact become better mediators, as evidenced by the fact that learners who were mediated by these children manifested a higher degree of the MLE criteria (e.g., feelings of competence, greater self-regulation and higher cognitive awareness) than did children in a control group whose mediators had not taken part in the program. In particular, the children not trained as mediators often solved the problems for the learners either by directly telling them what to do or by completing the tasks themselves, a finding that parallels the results of a similar study carried out by Wertsch and Hickmann (1987). The children trained through the PMYC program were more likely to provide clues and appropriate feedback to their peers. Furthermore, Shamir and Tzuriel report that children in both the experimental (with PMYC mediators) and control groups (without PMYC) scored the same on the pre-test (Children’s Seriational Thinking Modifiability), but that the experimental group significantly outscored the controls on the CSTM when it was re-administered as a posttest.

The significance of peer-to-peer mediation is that it further strengthens the central claim of DA – that assessment and instruction should be a unified activity. While it is not uncommon to find evidence of student collaboration in today’s classrooms, Shamir and Tzuriel’s findings suggest that these collaborations may not take full advantage of learners’ ZPDs. Moreover, it should be pointed out that while contemporary pedagogies might support peer collaboration, testing practices generally do not. As McNamara (1997) observes, most approaches to testing seek to isolate learners. Testers thus attempt to ensure that the resulting performance is not contaminated by the contributions of others or the use of mediating artifacts. The use of peer mediators challenges such
methodologies by shifting the focus away from what isolated individuals can do and emphasizes instead what individuals are capable of when functioning as part of a dyad or group. Such a change in perspective does not deny that it is at times interesting and appropriate to examine the contributions of individuals. However, it recognizes that participation in activities with others can bring about development, and therefore individuals may participate differentially over time. Future work in this area would benefit from the theoretical model elaborated by Cole and Engeström (1993), for understanding individual/group functioning.

The matter of training mediators to be sensitive to learners’ ZPDs is important for improving the effectiveness of not only peer-peer interactions but also teacher-student DA in the classroom. Van der Aalsvoort and Lidz (2002) investigated the effects of providing feedback to teachers about their interactions with groups of students through a procedure known as Video School Consultation (VSC). The teachers were video recorded as they mediated learners’ completion of curricular tasks, and these recordings served as a point of departure for follow-up sessions in which the teachers reviewed the tapes with a professional VSC consultant. The teachers’ interactions were evaluated according to the verbal and nonverbal moves they made, including their own engagement in the activity, their efforts to regulate turn-taking, and the timing of prompts and hints (p. 124).

The researchers organized a total of twenty-four DA sessions. They followed the VSC procedure with half the teachers during the initial twelve assessments and with the other half during the latter twelve sessions. In addition, the students were individually administered non-dynamic tests at various points throughout the study so that their
progress could be followed. In this way, Van der Aalsvoort and Lidz evaluated the effectiveness of the VSCs by considering whether the students made greater gains when their teacher was receiving feedback on the sessions (pp. 128-129). They report that over the course of the study all students showed signs of development – improved group performance during the DAs as well as higher individual scores – and that they made the greatest gains while their teacher was taking part in the VSCs, regardless of whether this occurred in the first or second half of the study. The researchers conclude that teachers can be trained through procedures such as VSC to be better mediators and that this is an important step toward realizing the full potential of DA in the classroom.

9.4.3 Dynamic Assessment and cognitive decline

Although most DA research has focused on the development of cognitive abilities among poorly performing students and learning disabled individuals, there is no reason why this work could not be applied to populations in other circumstances and at different points in the lifespan. Indeed, the later research of Vygotsky’s collaborator, Luria, dealt with the remediation of aphasic adults (1973). Baltes (1987) has suggested that DA principles could usefully be extended to the investigation of cognitive modifiability among the elderly. Pointing to research that shows more intra-individual variability later in the lifespan than during childhood, Baltes argues that intervention is a viable means of exploring cognitive decline (p. 618). He reports that the research literature on cognitive training with older adults reveals that these individuals have “sizeable plasticity” in that they can be trained to perform as well on intelligence tests as younger adults who have not undergone training (ibid.). He then proposes that DA, particularly Carlson and Weidl’s Testing the Limits approach, is an appropriate means of exploring this plasticity.
because of its intervention component. In this way, Baltes distinguishes *baseline performance* (an individual’s initial unassisted performance), *baseline reserve capacity* (how much the individual can do with assistance), and *developmental reserve capacity* (the extent to which the baseline reserve capacity can be improved through an intervention program) (ibid.).

Baltes describes an especially interesting study involving memory capacity for strings of numbers and words. Young and old adults participated in an intervention program designed to improve their performance on memory tests. Although little detail is provided, Baltes reports that the elders made substantial gains and, like their younger counterparts, were able to accurately recall long sequences of numbers following intervention. However, during a transfer stage, in which assessment conditions were altered, age differences became increasingly pronounced. In particular, increasing the speed at which items were presented disproportionately affected older participants. This finding leads Baltes to conclude that a *Testing the Limits* procedure that includes “conditions of high difficulty” has great potential to differentiate varying levels of ability, and should be pursued as an approach to identifying developmental dysfunctions, including Alzheimer’s Disease and other forms of dementia (p. 619). His more recent work has provided empirical support for his hypothesis that elders who respond less well to intervention are at greater risk for developing dementia than elders who make gains during DA (Baltes & Baltes 1997: 91). In this view, responsiveness to mediation during DA reveals an aspect of cognitive ability that other assessments do not and that appears to be linked to the onset of dementia. DA, then, may prove to be an especially sensitive procedure for identifying elders at greater risk for dementia.
Wiedl, Schöttke, and Garcia (2001) have also devised a *Testing the Limits* procedure that they use to screen elders for dementia. In their approach, Wiedl and colleagues administer a dynamic version of the *Audio Verbal Learning Test* – the AVLT of Learning Potential – six times consecutively. The test consists of a list of fifteen words that are read to participants and that they must then recall. The first two times the words are presented there is no intervention; this constitutes the pre-test and establishes each individual’s baseline performance. The test is then administered two more times and is accompanied by “reinforcement, feedback about performance in the preceding part, repetition of the words not recalled, and verbalizations aimed at focussing [sic] the participant’s attention on the task” (Calero & Navarro 2004: 655). The final two administrations of the AVLT-LP serve as a post-test, and therefore do not include interaction between the examiner and the participant.

Following this procedure, Wiedl and colleagues report that important differences emerge in participants’ abilities to process verbal input, to memorize, and to recall (Wiedl, Schöttke & Garcia 2001: 117). In particular, these appear to be common areas of dysfunction among patients with dementia. The authors show that their use of DA as a diagnostic for dementia meets traditional criteria of reliability and validity. They further suggest that the identification of these areas of cognitive decline could be used as the basis for further intervention (ibid.).

A number of researchers in Spain (Fernández-Ballesteros et al. 2003; Calero & Navarro 2004) are actively pursuing the use of Wiedl’s model of DA in their work involving elders with mild cognitive impairment (MCI) and dementia. In a recent longitudinal study, Calero and Navarro (2004) administered the *Mini Examen*
Cognoscitivo (MEC), the Spanish version of the Mini-Mental State Examination for diagnosing dementia, to a group of elders prior to using Wiedl’s AVLT-LP. In an interesting variation of Wiedl’s work, the researchers re-administered the MEC at points one year and two years after the dynamic procedure. In this way, Calero and Navarro used the MEC scores to group participants as healthy, MCI, or demented, and then interpreted the AVLT-LP performances (indicators of patients’ modifiability) in relation to these groupings. At the outset of the study, none of the participants were diagnosed with dementia. Importantly, there were no significant between-group differences regarding the gains that the healthy and MCI groups were able to make through DA; that is, the percentage of gainers was approximately the same in both groups. However, the two subsequent administrations of the MEC revealed that individuals identified as gainers during the DA did not show any cognitive decline while the non-gainers declined at statistically significant levels (Calero & Navarro 2004: 657). The authors suggest that degree of plasticity may be an indicator of cognitive decline, with a lack of plasticity signaling the transition from MCI to dementia (p. 658). They conclude tentatively that DA can be used to identify those at-risk elders whose responsiveness to intervention (i.e., those who gained as a result of DA) indicates that they can be helped to maintain their level of cognitive functioning if appropriate mediation is provided. To this, one should add that research must continue to explore the effectiveness of various forms of mediation for specific individuals, so that more and more people may be identified as gainers and may benefit from appropriate intervention.

A research project with precisely this aim is currently being developed by a team of applied linguists (of which this author is a member) at The Pennsylvania State
University. Led by Sinfree Makoni, these researchers are interested in improving elder-caregiver interactions by providing insights into the forms of support elders need to carry out daily activities. In much the same way that Shamir and Tzuriel (2000) found that untrained peer mediators gave too much assistance, the research in health care and geriatrics reveals that caregivers often complete tasks for elders rather than with them.

For example, Fulmer and Gurland (1997: 921) offer the example of “an elder with no cognitive impairment who demonstrates capacity to self-medicate and yet is administered daily medication by others, ‘just in case.’” While this no doubt facilitates caregivers’ performance of their responsibilities, it can also erode elders’ sense of agency (ibid.). Makoni and colleagues are developing a dynamic version of the Medication Management Test (MMT) that can be used explore how much assistance elders actually need to take responsibility for self-medication and whether these individuals can learn strategies to maintain – and perhaps improve – their level of functioning. The insights DA offers into cognitive functioning would appear to make it an excellent candidate for such research.

9.4.4 Dynamic Assessment and social justice

Sternberg and Grigorenko (2002: 22-23) introduce DA with a hypothetical example of two young boys, Alberto and Javier, growing up in Caracas, Venezuela. Alberto was born into an upper class family, attends private schools, and speaks both English and Spanish; he plans to pursue a career in international finance. Javier, on the other hand, was born to a poor family and raised in the slums. Javier attended a public school that was under funded and had very few resources. Not seeing the connection between the activities of school and home, Javier became disinterested and dropped out by grade five to begin making money working on the streets. Sternberg and Grigorenko
observe that Alberto would probably outperform Javier on most conventional tests of ability. In their view, this is because such tests do not take account of the possibility that predictions based on test scores can be undone through powerful intervention. As Valsiner (2001: 86) puts it, such tests assume the future to be a simple extension of the past, with the result that an individual’s future is a self-fulfilling prophecy: Javier will not have future academic success because he will not be given access to the necessary cultural resources since his test performance does not warrant such an investment.

Shohamy (1999, 2001) maintains that testing operates largely for gatekeeping purposes, granting opportunities and prestige to some but not others. In fact, the very notions of criterion-referenced and norm-referenced assessments reveal this goal of sorting individuals into pre-determined categories of pass/fail, accept/reject, A, B, C, F, etc. As Sternberg and Grigorenko (2002: 16) further point out, the situation is even more serious since tests favor individuals from some backgrounds over others. Returning to the example of Alberto and Javier, the latter student is disfavored not only because he has fewer years of schooling; even if the two boys were tested on the first day of school, it is likely that Alberto, because he comes from an environment that values academic learning, would still outperform Javier. According to Sternberg and Grigorenko, this would not be due to the latter’s poor abilities in general, but rather to the disjunction between his abilities and those that are privileged in school settings. Indeed, Greenfield (1997) reports a particularly relevant finding in her exploration of ability testing among Mayan children. She concludes that many of the learners struggled with the test because collaboration with peers was not allowed, a concept the children did not understand. In
the context of school (especially testing), such collaboration is generally seen as cheating while outside of school it is a necessary part of the children’s everyday functioning.

Throughout its history, DA has been marked by a clear commitment to helping underprivileged and at-risk individuals: the earliest discussion of the ZPD in Vygotsky’s writings concerned IQ testing and underestimates of ability among certain groups of children; in Israel, Feuerstein’s programs have sought to address shortcomings of the educational system that he argues have doomed to failure immigrant populations and individuals with learning disabilities; more recent efforts have focused on improving the care given to elders and the detection of dementia. In this way, DA researchers have endeavored to transform social practices and challenge common perceptions of poor test takers by mediating individuals into higher levels of functioning that exceed predictions made on the basis of static tests. Such an agenda has led more mainstream testers to reject DA on the grounds that it is not a scientific enterprise (Snow 1990: 1135). However, this criticism is based on an understanding of science that views quantification and measurement as requirements for objectivity (see Ratner 1997 for a critique of this position). Given its humanistic appeal and goal of enriching individuals’ lives, DA is perhaps more in line with what Luria (1979) describes as “romantic science.” This perspective eschews the reductionism of psychometric methods in favor of in-depth case studies that rely on observation, empathy, and interaction to understand human beings. The abundance of examples in the DA literature of so-called “hopeless cases” who, through dynamic interventions, have achieved more than anyone thought possible (e.g., Feuerstein, Rand, & Rynders 1988: 1-5), attests to the merits of this approach.
Nevertheless, DA is not a magical means of transforming individuals overnight but instead requires a substantial investment of time, effort, and resources (Tannenbaum 1988: x). What sets DA apart, and what is perhaps its greatest appeal, is the optimism of its view that human beings can develop through cultural means, and thus can overcome what Vygotsky called “disontogenesis.” Feuerstein (Feuerstein, Rand, & Rynders 1988: 14) captures this notion in his discussion of the two stances one can take when interpreting assessment results. The first, which he terms passive acceptance, views individuals’ abilities as immutable. According to Feuerstein, such a perspective results, at best, in efforts to modify the environment rather than the individual. This is at the heart of programs that segregate certain individuals from the rest of the population so that they may be appropriately treated. However, Feuerstein argues that because such treatment programs uncritically accept results of assessment procedures, they fall short of exploring individuals’ abilities, and instead lead to “lowered expectations, a watered-down curriculum, and social isolation” (Gindis 2003: 212). The other response to assessment results is active modification, which is interested in “increasing the individual’s modifiability and enhancing his adaptational capacities” (Feuerstein, Rand, & Rynders 1988: 14). That is, active modification seeks not to modify the environment but to help individuals develop so that they may perform in various contexts.

Gindis (2003) remarks that Vygotsky made a similar point in his description of primary and secondary disabilities. In this model, primary disabilities are biological in nature (e.g., auditory and visual impairments) whereas secondary disabilities result from the social world’s responses to primary disabilities. That is, “expectations, attitudes, and the spiritual atmosphere created by society influence the access of a child with a
disability to sociocultural knowledge, experiences, and opportunity to participate in
shared or joint activities with peers” (p. 203). Today, as in Vygotsky’s time, this often
means that individuals are denied access to the very opportunities that might enable them
to overcome the challenges they face. The resulting “distorted development” (p. 202)
was described by Vygotsky as **disontogenesis**. For Vygotsky, it is the internalization of
symbolic tools that is the key to remediation; cultural intervention is the means through
which one can undo the predictive validity of traditional tests. This is as true with
underprivileged populations as it is with the learning disabled or the elderly. To
paraphrase Bruner’s (1980) endorsement of Feuerstein’s MLE approach to DA,
mediation is fundamental to being human, and through mediation all human beings can
develop. To this, Vygotsky would likely add, “the path of cultural development is
REFERENCES


Swain, M. and S. Lapkin. (2002). Talking it through: two French immersion learners’
response to reformulation. *International Journal of Educational Research 37:*
285-304.

Programmed Instruction.* Moscow: Progress Publishers.


Review 57 (3):* 344-349.

and assessment in the classroom.* Buckingham: Open University Press.

Journal of Special Education 26:* 302-324.

Publishers.

Tzuriel, D and A. Shamir. (2002). The effects of mediation in computer assisted

*Human Development 44:* 84-97.

zone of proximal development and its interpretations. In *The development and
meaning of psychological distance.* R.R. Cocking, & K.A. Renninger, (Eds.).
Hillsdale, NJ: Lawrence Erlbaum.


APPENDIX A

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH

The Pennsylvania State University

Title of Project: A Dynamic Assessment of French Oral Proficiency among Second Language Learners

Principal Investigator: Matthew E. Poehner, 401 South Burrowes Building, University Park, PA 16802 (814) 865-1492 mep158@psu.edu

Faculty Advisor: Dr. Celeste Kinginger, 325 South Burrowes Buidling, University Park, PA 16802 (814) 865-1492 cxk37@psu.edu

1. Purpose of the Study: The purpose of this research study is to explore the application of a new assessment technique to students learning French. It is hoped that this approach to language assessment will enhance language instruction and learning.

2. Procedures to be followed: Participation in this study will involve three sessions, during each of which you will be asked to tell a story in French. Each session will be audio and video recorded. Please note that by participating in this study you are agreeing to be audio and video recorded. This is strictly for research purposes, as it will better enable the principle investigator to document these sessions. Participants may also be invited to take part in one-on-one tutoring sessions with the researcher. Please note that if you have not been asked to participate in the tutoring sessions by October 1st, 2003 it is solely due to our quotas already being filled.

3. Discomforts and Risks: There are no risks in participating in this research beyond those experienced in everyday life.

4. Benefits:
   a. The benefits to participants include gaining insights into the areas of their French speaking proficiency that are particular strengths as well as those areas where more work is needed. They may also learn ways to improve their proficiency.
   b. The benefits to society include an enhanced understanding of the relationship between assessment and instruction and assessment and learning. In particular, it is hoped that a greater connection will be made between performance on language assessments and subsequent instructional strategies.

5. Duration: Each of the sessions in which participants are asked to construct a narrative in French should take no more than 30 minutes. For those students who participate in the follow-up tutoring sessions, these will also last about 30 minutes and will be scheduled with the researcher on a weekly or bi-weekly basis.

6. Statement of Confidentiality: Only the researcher and the faculty advisor overseeing this research project will know your identity. Video and audio recordings of the sessions will be stored in the researcher’s locked office and all tapes will be destroyed by summer, 2007. If this research is published, no information that would identify you will be written.
7. **Right to Ask Questions:** You can ask questions about this research project and the principle investigator, Matthew Poehner, will answer your questions. You can contact him with questions at 865-1492 or by sending him an email at mep158@psu.edu. If you have questions about your rights as a research participant, contact Penn State’s Office for Research Protections at (814) 865-1775.

8. **Compensation:** Participation in this research is voluntary and no compensation will be offered to participants.

9. **Voluntary Participation:** You do not have to participate in this research. You can withdraw from the study at any time by notifying the principal investigator. If you do withdraw from the study, any previously collected data on you will be destroyed. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this research study and to the terms above, please sign your name and indicate the date below.

You will be given a copy of this consent form to keep for your records.

<table>
<thead>
<tr>
<th>Participant Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The informed consent procedure has been followed.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Investigator Signature</th>
<th>Date</th>
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APPENDIX B

ABBREVIATIONS AND TRANSCRIPTION CONVENTIONS

M=mediator  A=Amanda  D=Donna  J=Jess  S=Sara  N=Nancy  E=Elaine

SA1 = static assessment prior to the enrichment program

DA1 = dynamic assessment prior to the enrichment program

SA2 = static assessment following the enrichment program

DA2 = dynamic assessment following the enrichment program

TR1 = first transfer assessment (film)

TR2 = second transfer assessment (book)

EL= enrichment learners

NL= non-enrichment learners

PP= present perfect

* = indicates an error

… = indicates that the protocol begins partway through an utterance

(…) = indicates a pause

(?) = indicates that speech was inaudible

[ ] = indicates overlapping speech
Are you recounting the narrative in “real time” such that you are placing yourself (and your reader/listener) in the midst of the series of events as they unfold? For example, do you wish to construct your narrative as if things are being done and said at the present moment in time? Alternatively, do you want to distinguish the present time at which you are speaking/writing from the narrative’s timeline? In other words, are you referring to the events of your narrative as distinct points in time prior to the present moment?

Both approaches are possible but you should keep in mind how the effect on your reader/listener may vary. Using “real time” in a narrative is something we often do informally and may lend a certain immediacy to the tale or give your reader/listener the feeling that he/she is in the situation being recounted. On the other hand, distancing yourself from the narrative’s timeline is more characteristic of formal language use. How you position yourself and your audience in relation to the narrative is dependant upon the formality of the situation and the effect you wish to create.

The following timelines illustrate both possibilities and the verb tenses in French you can use to achieve them. With the first, the vertical axis representing your reference point is the present (i.e., the time when you are speaking/writing). With the second, the vertical axis (reference point) is the point the narrative that you are recalling.

### Present Moment in Time

<table>
<thead>
<tr>
<th>POINTS PRECEDING THIS MOMENT</th>
<th>AT THIS MOMENT IN TIME</th>
<th>POINTS FOLLOWING THIS MOMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passé Composé, Imparfait</td>
<td>Présent</td>
<td>Futur, Imparfait</td>
</tr>
<tr>
<td>(j’ai étudié, j’étudiais)</td>
<td>(j’étudie)</td>
<td>(j’étudierai, je vais étudier)</td>
</tr>
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</table>

### Recalled Moment in Past

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<th>AT RECALLED MOMENT IN PAST</th>
<th>POINTS FOLLOWING THE RECALLED MOMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus-que-parfait</td>
<td>Passé Composé, Imparfait</td>
<td>Conditionnel, Imparfait</td>
</tr>
<tr>
<td>(j’avais étudié)</td>
<td>(j’ai étudié, j’étudiais)</td>
<td>(j’étudierais, j’allais étudier)</td>
</tr>
</tbody>
</table>
APPENDIX D

ASPECT: USE OF IMPARFAIT AND PASSÉ COMPOSÉ

Using the *imparfait* and the *passé composé* in French allows you to consider different perspectives on actions, events, and states. Just as you can see an object (e.g., a chair) differently by looking at it from multiple perspectives (e.g., from the top, from underneath, from behind, etc.), the same can be done with actions, events, and states. Different aspects can be emphasized depending upon the perspective you wish to take.

Using the *imparfait* allows you to talk about an action, event, or state from the perspective of a particular point in time and makes no commitment to its beginning or end.

Using the *passé composé* allows you to view an action, event, or state from the perspective of its beginning or ending at a particular point in time. If there is no specified moment in time being recalled, the *passé composé* is also used to emphasize that an action was completed at some point.

Look at the following examples with the verb *neiger* (to snow) and notice how the meaning changes when the verb is used in the *passé composé* versus in the *imparfait*.

*La nuit dernière il neigeait et il faisait du vent.*
Last night it was snowing and it was windy.
*In this sentence, we’re taking the fact that it snowed and that there was wind and we are viewing them without any relation to their beginning or end.

*La nuit dernière il a neigé et aujourd’hui les cours sont annulés.*
Last night it snowed and today classes are cancelled.
*Here we are seeing the fact that it snowed from the perspective of its completion. It snowed and the consequence of that event is that classes are cancelled today.

Now let’s consider some uses of the *imparfait*:

*Je cherchais mon vélo quand j’ai vu Marc.*
I was looking for my bike when I saw Marc.
Here, the recalled point is “when I saw Marc” and we are considering the action of “looking for my bike” from the perspective of what was ongoing at the moment “when I saw Marc.”

*Quand je l’ai vu il était très malade.*
When I saw him he was very sick.
In this case, the recalled point is the moment “when I saw him.” We are considering the state of being sick from that moment in time and not from the perspective of its beginning.
or end.

Similarly, here are some uses of the *passé composé*:

*Marc a été très malade (mais il ne l’est plus).*
Marc was very sick (but he no longer is).
This sentence is very similar to the one above but the use of the *passé composé* here implies that the state (of being sick) is over.

*J’ai cherché mon vélo mais je ne l’ai pas trouvé.*
I looked for my bike but I did not find it.
Again this sentence is similar to one above but this time we are seeing the action (of looking for the bike) as completed.

In a narrative, you will find that both tenses are useful. Whether you use the *imparfait* or the *passé composé* depends upon how you want to talk/write about a particular action, event, or state. You might want to say what was ongoing at a certain point in the narrative to set the stage (“it was cold,” “the protagonist was wearing a warm coat,” “she was walking down the street with a friend,” etc.) and then follow this with actions that either began or were completed at that moment or have since been completed (“she turned to her companion and said something,” “she crossed the street and entered the café,” etc.).

The timeline below illustrates the different perspectives on actions, events, or states of being that one can take. By looking at each of the X marks on the line one gets a clear sense of beginnings and endings. On the other hand, “zooming in” highlights an action, event, or state of being as ongoing or continuing at a given point in the past and does not make reference to beginnings or endings. In a narrative, you can choose to either zoom in on something or step back from it; either perspective is possible but the meanings each generates are different.
APPENDIX E

ASPECT OF AN ACTION, EVENT, OR STATE

PASSÉ COMPOSÉ

- I want to talk about an action, state, or event as beginning at a certain moment in time
- I want to talk about an action, state, or event as something that has been completed at some point in time
- I want to talk about an action, state, or event as ending at a certain moment in time

IMPARFAIT

- I want to talk about an action, state, or event without any reference to its beginning or end
CURRICULUM VITAE
MATTHEW E. POEHNER

PERSONAL

Home address: 131 Old Evergreen Lane
State College PA 16801 USA
Phone: 814-867-4723
Email: mep158@psu.edu

EDUCATION

Ph.D. in French with specialization in Applied Linguistics, Pennsylvania State University, 2005
M.A. in French, Pennsylvania State University, 2000
B.S. in Education, University of Cincinnati, 1998
B.A. with Honors in French, University of Cincinnati, 1997

PUBLICATIONS


REFERENCES

James Lantolf, Professor, Linguistics and Applied Language Studies, Penn State University, jpl7@psu.edu
Celeste Kinginger, Associate Professor, Dept. of French, Penn State University, cxk37@psu.edu
Karen Johnson, Professor and Head of Department, Linguistics and Applied Language Studies, Penn State University, kej1@psu.edu