

# Dynamic Assessment in Second Language Acquisition: A Qualitative Meta-Synthesis<sup>1</sup>

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## Abstract

In search of a more in-depth grasp of the process and practice of dynamic assessment (DA) in second language acquisition (SLA), the present study adopted a qualitative meta-synthesis methodology and identified a number of synoptic accounts and themes pertinent to the practical implementation of DA and the philosophical worldview adopted towards it. The overarching inferences made based on the systematic review of 40 peer-reviewed, primary studies, which met certain predetermined criteria for selection and inclusion in the data set, emanated a shared set of two primary and two secondary themes. Expounding upon the dual function of DA in terms of both diagnosing and developing learners' abilities and elucidating how DA, formative assessment, and scaffolding are different, the two primary themes reflect on commonalities dissected across the 40 selected primary studies on DA, respectively. The two secondary themes give fresh insights into the nature of DA by hailing DA as an assessment tool that can ameliorate fairness in education and explaining how DA is in line with experientialism and pragmatic worldviews. Therefore, the established primary themes can shed light on further dimensions of DA

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implementation in language pedagogy as well as its practical application guidelines, and the secondary themes can reflect on the way fairness, validity, reliability, and generalizability in DA can be revisited.

**Keywords:** Qualitative meta-synthesis, Classroom assessment, Sociocultural patterns, Alternative assessment, Dynamic assessment

## Introduction

DA is rooted in Vygotsky's socio-cultural theory (SCT) of learning, according to which all human mental activities are mediated either by objects, cultural concepts, and psychological tools or by other human beings through social interaction (see Poehner, 2008). In fact, "DA is based on Vygotsky's SCT of Mind (1978) whereby human cognition and learning is seen as a social and cultural – rather than an individual – enterprise" (Shrestha & Coffin, 2012, p. 57). Moreover, DA is described as an interactive approach to assessment (see van Compernelle & Kinginger, 2013), where "the object of assessment is fully understood by actively seeking to change it" (Poehner, 2011a, p. 100). DA is also defined as "a procedure that integrates assessment and instruction into a seamless and ongoing activity" (Davin & Donato, 2013, p. 5). The pedagogical approaches of DA purport that in order to gain an understanding of human learning, merely observing their solo performances does not suffice (Poehner, 2008), and an accurate assessment of cognitive abilities must take account of both individuals' current level of development and their potential for future development (Daniels, 2005).

Within the theoretical framework of DA, efforts to assess learner abilities "necessarily involve promoting their development through instructional intervention" (Poehner, 2011a, p. 100). Therefore, instruction, which is a means of learner development support, and assessment, as a way of conceptualizing learners' ability, are to be looked at as an integrated (Lantolf & Thorne, 2006) and "dialectically fused" (Poehner, 2011a, p. 100) pursuit. DA, hence, sheds light on further aspects and dynamics of learner development "typically not available through other assessments" (Poehner, 2011b, p. 249).

The kernel of DA implementation in language acquisition contexts revolves around the notion of the zone of proximal development (ZPD) and mediation. The ZPD refers to the distance between learners' actual level of development and their potential level of development; the former is determined by learners' independent performance and the latter by their performance when peer collaboration is offered to them. Through mediation, learners "regulate the material world, others' or their own social and mental activity" (Shrestha & coffin, 2012, p. 57). In language teaching contexts, mediation operationally refers to the support learners are endowed with by the teacher/mediator. This support is given in the form of mediator-learner interaction, is pertinent to learners' emerging needs and assists them with enhancing their ZPD.

Dynamic views towards language assessment strive to take heed of learners' mediated performance, the extent to which external assistance is beneficial to

them and how it might be passed on to future test or task circumstances. So, “DA principles provide a framework for organizing interactions with L2 learners that not only permits greater insights into their abilities in the language but also supports their continued development” (Poehner & Lantolf, 2010, pp. 312-313). Informed by the underpinnings of DA, for teachers/mediators to understand learners’ process of development, they are to have active collaborations with learners, provide them with appropriate support, and “help them stretch beyond their independent performance” (Lantolf & Poehner, 2010, p. 11). It is also acknowledged that there is considerable merit in implementing DA in classroom assessment practices; however, “despite its popularity among a small community of specialists it is not widely pursued by educational researchers” (Poehner, 2011a, p. 99). Sternberg and Grigorenko (2002) posit that if the mediation is provided during carrying out the assessment and upon the noticing of a problem, the *cake* format of DA is adopted. However, in case mediation is offered between the pretest and posttest with the aim of quantifying the improvement, which is the resultant of mediation, the *sandwich* format of DA is used.

The DA format known as *cake*, in which an interactionist orientation concerning assessment is adopted, is usually preferred in the classroom situation. To satisfy the learners’ needs in classroom assessment practices, teachers/mediators should do their best to engage in the learners’ learning process and to consider their needs throughout classroom activities and interactions. Therefore, teachers/mediators are, in fact, shouldering the responsibility for creating ZPD. This paves the way for a diagnosis that enhances learning (Poehner, 2011a, p. 104) throughout the dialogic and open-ended procedures of DA, which are neither scripted nor prescribed. In order to guarantee the success of ZPD interactions, learners and mediators/teachers should cooperate to achieve the common objectives they are looking for (Poehner & Lantolf, 2005).

As far as qualitative meta-synthesis is concerned, it is worth noting that according to Cooper (as cited in Norris & Ortega, 2000, p. 422), “given the cumulative nature of science, trustworthy accounts of past research are a necessary condition for orderly knowledge building.” It can be inferred that reviewing accumulated evidence in the literature of a research domain prior to the inception of new research is intended to prevent reinventing the wheel, one way or another. Systematic reviews intend to reduce duplication and develop worthwhile databases of intervention studies to ease their dissemination and access (Suri & Clarke, 2009). Despite bearing an uncanny resemblance to methodical reviews, “*synthesis* is the more general term that covers any form of systematic review of quantitative, qualitative, or mixed methods primary research, and the one that we prefer using because of its more inclusive meaning” (Norris & Ortega, 2007, p. 805).

One of the merits of systematic reviews is that they can dispel and combat two enduring myths inherent in quantitative research: “(a) that a research question may be definitively answered by a single study (if the study can only attain methodological perfection), and (b) that the gold standard of proof re-

sides in statistical significance” (Norris & Ortega, 2007, p. 812). Similarly, meta-synthesis has been referred to as a research methodology that tends to “review a large body of literature and systematically synthesize the findings in an effort to develop a more informed understanding of a particular area of interest” (Tang, 2009, p. 2341). However, qualitative meta-synthesis has drawn a number of criticisms. For instance, the *crisis of representation* (see Sandelowski, 2006), *discursive anxiety*, and *disciplinary anxiety* (see Michalowski, 1997) have been identified as demerits of meta-synthesis.

Despite the proliferation of experimental studies on DA in the realm of second/foreign language acquisition and the overriding emphasis on the effectiveness of mediation in fostering learner development in the literature (see the references marked with an asterisk in the list of References), qualitative research-based reports that offer new insights into the crux of DA and its pedagogical ramifications are quite scanty. In line with the same concept, although it is acknowledged that meta-synthesis is of great benefit to creating new understandings of the way intricate phenomena are conceptualized, it is not widely used in SLA research.

Attempting to take a step to fill this void, the present study provides an interpretive synthesis of DA-focused studies to identify generalizable value statements about the nature of DA and what the recent literature adds to our understanding of DA.

## Literature Review

First and foremost, it must be noted that although this literature review must create a foundation that has led to the present study, since to the best of the researchers’ knowledge almost no qualitative meta-synthesis has been conducted on second language (L2) DA, what follows is an account of the hallmarks of the literature on DA in the realm of SLA. As to the literature on research synthesis, it must be noted that qualitative and quantitative research synthesis techniques and meta-analysis have been previously applied to lines of research into education (e.g., De Gagne & Walters, 2009; Hedges, 1992; Lin, Hsu, Lin, Changlai, Yang, & Lai, 2012; Lou, Abrami, Spence, Poulsen, Chambers, & d’Apolonia, 1996; Myburgh & Poggenpoel, 2009; Stahl & Fairbanks, 1986; Strobel & van Barneveld, 2009; Tuquero, 2011), language acquisition, teaching, and learning (e.g., Dinsmore, 2006; Gersten & Baker, 2000; Goldschneider & DeKeyser, 2001; Jeon & Kaya, 2006; Keck, Iberri-Shea, Tracy-Ventura, & Wa-Mbaleka, 2006; Krashen, 1999; Lee & Huang, 2008; Masgoret & Gardner, 2003; Norris & Ortega, 2000; Ortega, 2003; Slavin & Cheung, 2005), and language testing (e.g., Au, 2007; Ross, 1998).

However, as stated earlier, as far as DA in SLA is concerned, to the researchers’ knowledge, no meta-synthesis has been carried out, and the only meta-analyses on DA are those conducted by Swanson and Lussier (2001) and Murphy and Maree (2006), which mainly focused on the assessment of the significance of the synthesized effect size from a number of previously conducted

quantitative, experimental studies. It is worth briefly noting that meta-analysis, which is quantitative in nature, mainly focuses on such statistical aspects as the variance of correlations, sampling errors, and effect sizes in primary research studies and has to do with making meta-measurement and correcting bias and error in findings of primary research (see Hunter & Schmidt, 2004). Having said that, trying to establish descriptive benchmarks and a whole which is more than the sum of its parts, meta-synthesis is qualitative and attempts to provide new insights into the interpretations of primary research and obtain a broader understanding that may have not been gained in any single primary study (see Bair, 1999).

The surge of interest in SCT and DA in the late 1990s resulted in the proliferation of research into the implementation of DA practices in foreign and second language classroom contexts. To start with, Kozulin and Garb (2002) studied the implementation of DA in areas as EFL in pre-academic classrooms. The study discusses how DA procedures could shed light on students' learning potential and provide information to help develop efficient individual learning plans to meet their needs. Similarly, Poehner and Lantolf (2005) investigated the application of DA in the L2 classroom situation and pondered upon the concept of the ZPD and its realization in DA procedures. Also, Lantolf and Poehner (2004) prepared a theoretical framework for the implementation of DA procedures to L2 assessment and pedagogy, reviewed the major approaches to DA, and argued about some of the criticisms levelled against it.

A majority of studies on L2 DA have heeded the merits of DA in fostering learner development and unifying instruction and assessment. For instance, Anton (2009) attempted to indicate the potential of DA in L2 learning situations and reported on the application of diagnostic assessment, while paying particular attention to the employment of DA practices as a way to firstly assess language abilities, secondly interfere in learning, and thirdly document learners' growth. Moreover, presenting examples involving learners of French, Poehner's (2009a) study had a careful look at DA in education and its role in L2 development as well as classroom teaching. Similarly, Lantolf and Poehner (2010) investigated the efforts of a full-time elementary school L2 Spanish teacher to put the principles of DA into practice in a normal (i.e., non-experimental) classroom setting and discussed that interaction in the ZPD could divert our attention from an attention to the product of development to its process. Illustrating transcendence in the L2 domain with instances of advanced learners of French, Poehner (2007) reconceptualized the problem of assessment generalizability from a qualitatively different perspective, that is, SCT. Moreover, the use of group DA (G-DA) with groups of L2 learners was explored by a number of scholars (e.g., Poehner, 2009b), and how a group's ZPD could be encouraged while supporting the development of individual learners was discussed.

Van Compernelle and Williams (2012) examined the micro-genetic development of learners' grasp of sociolinguistic variation in French during episodes of instructional conversation (henceforth IC) which provides apposite arbitration sensitive to the ZPD of the class. Moreover, Davin's study (2013) found out

how a primary school teacher used DA and IC frameworks to navigate dual goals of instruction and assessment while providing arbitration attuned to learners' ZPD. The potential of DA to foster and unite assessment and intervention (Yeomans, 2008), the relationship between language instruction and language assessment in carrying out DA (Lantolf, 2009), ZPD as a transformative activity, which dialectically unifies assessment and teaching, (Poehner & van Compernelle, 2011), and peer-scaffolding in DA (Davin & Donato, 2013; Gagné & Parks, 2013; Guk & Kellogg, 2007) were investigated in the literature, and learner self-assessment was approached from a Vygotskian perspective (Poehner, 2012). Research on L2 DA has also probed into the contribution of DA to L2 development, e.g., the ontology of mediation, validity of DA procedures, interactionist DA, and interventionist DA (see Lantolf & Poehner, 2013).

Literature on DA has also attended to the relation between DA and other forms of assessment. Poehner and Lantolf (2005) made a comparison between DA and formative assessment (FA), and proposed how FA might be reconceptualized based on DA principles. Later, Leung (2007) endeavored to provide a description of DA, and argued about some of the criticisms raised by DA to conventional approaches to assessment. They also pinpointed that the differences and similarities between DA and FA and argued that some of the practical concerns of a DA perspective can be raised in language learning and assessment.

Poehner's (2011a) seminal paper looked for strengthening the dialogue between DA advocates and the broader assessment community by probing into the potential contributions DA may suggest in answering such important questions as how assessment may in the service of teaching and learning and how fairness in education may be pursued. In a similar vein, relying on the key validity notions of evidence, interpretations, and consequences in attending to the process of mediator-learner dialoguing, Poehner's (2011b) study underscored the need for a systematic and principled approach to evaluating prerogatives about learner abilities and their development. He also expounded on a recommended model of validation in L2 DA. As stated earlier, given that the analysis of existing research findings on DA with the aim of developing new knowledge and themes has received scant attention in the related literature, the present meta-synthesis is concerned with distilling and describing key points and themes (Bair, 1999) presented in definitive research literature on DA.

## **Purpose of the Study**

It is worth noting that, by and large, research synthesis is aimed at uncovering gaps and weaknesses in a given domain, synthesizing and integrating the findings of related primary research to identify the key implications realized from them, and improving further interpretations of findings. It also strives to add novel insights into research findings in a target research domain to obtain a broader and/or a deeper level of understanding, which has not been explicitly stated in any single primary study, and introduce new themes depicting a whole which is more than the sum of its parts (see Norris & Ortega, 2007).

Hence, informed by rigorous analysis of existing research findings, the present meta-synthesis was an attempt to derive common themes from studies on L2 DA, provide new insight into the crux of DA, and answer the following research question: What common themes can be derived from DA primary research carried out to date that can make a contribution to language pedagogy and a better understanding of DA's worldview?

## **Method**

Qualitative meta-synthesis, an instance of which is the present work, adopts an interpretive research approach (Crotty, 1998), emphasizes the meaning-making nature of knowledge production (Kent, 2000), creates substantive and formal theory (McCormick, Rodney, & Varcoe, 2003), provides correlational findings, not causal ones (Norris & Ortega, 2007), and aims to offer a fuller interpretation (Thorne, Jensen, Kearney, Noblit, & Sandelowski, 2004) or a new understanding (Suri & Clarke, 2009) of an issue. Qualitative meta-synthesis "has an interpretive, rather than aggregating, intent, in contrast to meta-analysis of quantitative studies" (Walsh & Downe, 2005, p. 204) and attempts at deeper interrogation and analysis of research findings (Statham, 1988). It is recommended that at least 10 to 12 studies should be included in a valid meta-synthesis (Bondas & Hall, 2007). Likewise, it is elsewhere proposed that "between 6 and 10 studies is optimal to provide sufficient yet manageable data" (Major & Savin-Baden, 2010, p. 54) for meta-synthesis.

In the present qualitative meta-synthesis, both qualitative and quantitative primary studies were included in the data set, for it is acknowledged that, as a qualitative methodology, meta-synthesis "uses both qualitative and quantitative studies as data or unit of analysis" (Strobel & van Barneveld, 2009, p. 46). In fact, "while meta-syntheses are traditionally used to synthesize qualitative research findings exclusively, Bair (1999) expanded the use to include the qualitative comparison of quantitative, qualitative, and mixed-method studies" (Strobel & van Barneveld, p. 46). In other words, since methodological variety in educational research is inevitable, "qualitative synthesis of quantitative and qualitative research is an appealing concept" (Suri & Clarke, 2009, p. 403).

Qualitative meta-synthesis is after integrating insights gained from methodologically varied, but relevant individual studies into a whole which is greater than the sum of its constituents. Therefore, as stated earlier, in order to gain a broad understanding of a large body of literature, the present meta-synthesis was concerned with qualitative reviews of both qualitative and quantitative research.

## ***Data Collection***

### ***Procedures for Retrieving Relevant Articles***

The articles analyzed in this meta-synthesis were gathered in July 2014 using different research databases, including Academic Search Complete, Education

Resources Information Center (ERIC), JSTOR, Modern Language Association (MLA), ProQuest, PsycINFO, Web of Science, Social Science Citation Index, and Springer. Keyword searches in major journals in the field of DA such as the *Journal of Cognitive Education and Psychology*, and names of prominent figure/author searches (e.g., Lantolf, Poehner, & van Compernelle) were also used to locate the potentially relevant articles. The initial search terms employed to retrieve potential data for the present meta-synthesis were ‘dynamic assessment (DA)’, ‘sociocultural theory (SCT)’, ‘activity theory’, ‘zone of proximal development (ZPD)’, ‘mediated learning experience (MLE)’, ‘scaffolding’, ‘classroom assessment’, ‘instructional conversation (IC)’, ‘mediation’, and ‘Vygotsky’. This generated a list of 82 articles.

### ***Quality Control***

To ensure the relevance of the selected articles to the scope of the present study, one of the researchers and a Ph.D. candidate of TEFL whose area of academic interest was DA scrutinized the papers separately, and those research reports that despite employing DA and being grounded in SCT did not offer insight into the practical implementation of DA in language instruction and were not relevant to the research question raised in this research were left out. The majority of excluded articles were not focused on language teaching or SLA (e.g., Fisher, 2012; Fuchs, Compton, Fuchs, Bouton, & Caffrey, 2011), distinguished language difference from language disorder (e.g., Gillam, Pena, & Miller, 1999), made use of computerized dynamic assessment (C-DA) (e.g., Poehner & Lantolf, 2013), and delved into the effects of scaffolding for science education (e.g., Lin et al., 2012). Also, those articles that, despite being concerned with DA, focused on the reliability and validity of dynamic assessment of word learning (DAWL) (e.g., Camilleri & Botting, 2013) and the diagnosis of language impairments in children (e.g., Hasson & Dodd, 2014) were omitted as well, because they did not fall within the realm of SLA, nor did they fit the scope and concerns of the present study which mainly heeded the application of DA in SLA contexts. To enhance the trustworthiness of this meta-synthesis, only those articles published in refereed journals were included in the final data set. These quality considerations resulted in 40 peer-reviewed papers, which are marked with an asterisk in the reference list. The data set of the present study, hence, was comprised of 40 scholarly articles (i.e., primary research), which are (1) asterisked in the reference list and (2) listed and described in Appendix A in chronological order.

### ***Data Analysis***

The three-phased interpretive approach delineated by Major and Savin-Baden (2010), which includes the analysis, synthesis, and interpretation of primary research findings, was used for the coding and analysis of the data in the present meta-synthesis. Informed by grounded theory (Corbin & Strauss, 2007), open coding (i.e., categorizing classified information), axial coding (i.e., screen-



ing the categories by positioning them within theoretical models), and selective coding (i.e., synthesizing themes from their interconnection) were used.

In fact, each paper was scrutinized separately and independently by two readers, that is, one of the researchers and a Ph.D. candidate of TEFL, separately and independently. Notes were taken on the key concepts, features, and findings of the 40 studies which were relevant to the research question and an initial template was made. Next, informed by the steps involved in meta-ethnography suggested by Noblit and Hare (1988), key phrases, ideas and metaphors presented in each study were identified and juxtaposed with those of other studies, codes were identified, and assumptions were made about the relationships across findings of the selected studies. These assumptions, which were based on the issues raised by the vast majority of the primary studies, laid the foundations for comparing the studies, looking for analogies and contradictions among their findings and discussion, and translating the studies into one another.

The two human coders, then, discussed the initial assumptions they had made to come up with an agreement in terms of the distilled evidence of recurring commonalities with regard to the application of DA for L2 classroom assessment. They then synthesized the identified translations to come up with new themes that could make a contribution to language pedagogy, depicting a whole more than the sum of its individual parts, that is, new interpretations of primary research findings, not found in any single primary study (see Norris & Ortega, 2007). The simple agreement ratio between the two coders was .88 for the final coding of the emergent themes. To calculate the simple agreement ratio, the number of ratings in agreement was counted first. Then, the total number of ratings was divided by the number in agreement to obtain a fraction.

The codes were analyzed and two primary themes were established. These themes were then synthesized and interpreted further (see Brown & Lan, 2015) to offer a fresh perspective on DA in SLA; this process of synthesis gave rise to the establishment of two secondary themes. It bears repeating that while the primary themes outline recurring commonalities among the studies, the secondary themes, aiming at providing fresh perspectives in the crux of DA implementation, are the upshot of the synthesis and interpretation of the primary themes. In other words, the primary themes address what has been highlighted in the previously conducted research on DA by distilling the commonalities observed and found in the conclusions of primary research articles included in the data set. Emerging as a result of further scrutiny of the primary themes, the secondary themes, however, present what has been alluded to in the primary themes but has not been explicitly presented before. Finally, the themes were enlarged upon and the detailed results of the synthesis were reported in language appropriate for the intended audience (see Noblit & Hare, 1988). Before presenting and expounding on the primary and secondary themes, it seems prudent to reiterate that all forms of assessment, fulfilling certain purposes and meeting different needs, are valuable. It is no less true that the presumption that standardized, static assessment or any form of assessment which is not

learning-oriented is nugatory is, doubtless, way off the mark. However, given that the present research focuses on assessment for pedagogic purposes and DA, paying particular heed to the merits of employing DA in the social situation of classroom context is inevitable.

## Results and Conclusion

### *Primary Themes*

#### *DA: A Platform for Integration of Diagnosis and Development*

This theme pertains to the dual role of DA. Although the role of DA in “dialectal integration of instruction and assessment into a seamless and dynamic activity” (Lantolf, 2009, p. 355), by co-creating ZPD through cooperation and negotiation, has been bandied about in the literature, it should be noted that Vygotsky’s notion of praxis also posits a dialectal view of humans according to which “understanding and intervention, or transformation, are integrated processes” (Poehner & Lantolf, 2010, p. 328). Therefore, DA is to be conceived of as a pedagogical endeavor that, apart from the unification of assessment and instruction, has another role: integration of *diagnosis* and *development* by (a) carrying out assessment to cast light on the diagnostics of individuals’ development and abilities that are still in the process of forming, and (b) advancing their current level of ability to support their development by providing appropriate instruction (Poehner & Lantolf, 2010).

It is worth noting that by discovering individuals’ ZPD, “while we are gaining a perspective on the person’s future, we are at the same time helping the person attain that future” (Lantolf & Poehner, 2004, p. 53). In other words, “the purpose of L2 DA interactions is to simultaneously reveal and promote learner abilities” (Poehner, 2011b, p. 259). DA practices and instructional conversation (IC) can be used in conjunction to simultaneously assess and promote development (Davin, 2013). In short, “DA contributes to optimizing the match between learners and tasks, to developing learners’ cognitive as well as second language skills, and to providing useful assessment of language development” (Hill & Sabet, 2009, p. 544).

To achieve the dual purpose of DA in practice, teachers can prepare a mediation inventory (Lantolf & Poehner, 2010) and first try to use more implicit mediating prompts. In case those attempts do not help the student with the very task at hand, they can then resort to more explicit mediational moves. Mediation inventory of teacher prompts is presented in order from most implicit (#1) to most explicit (# 8) in Figure 1 below.

In fact, following these mediation moves is important because mediation must be “tuned to those abilities that are maturing, and as they mature further as a consequence of mediation, the mediation itself must be continually renegotiated” (Poehner & Lantolf, 2005, p. 260). By the same token, in order for the mediation to be effective and assist learners in developing their learning potentials, teachers and tutors must refrain from providing the learner with the right

answer because that must be used as a last resort, and learners are to be held responsible for doing the assigned tasks either individually or in a group with their peers. Shrestha and Coffin (2012) have devised a guideline for tutor mediational moves that can be employed for writing assignments, which can be seen in Figure 2 below.

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| <ol style="list-style-type: none"> <li>1. Pause</li> <li>2. Repeat the whole phrase questioningly without indicating the nature and location of the problem</li> <li>3. Repeat just the part of the sentence with the error</li> <li>4. The teacher points out that there is something wrong with the sentence, "There is a problem with the word .../ phrase ..., etc." Alternatively, the teacher can pose this as a question, "What is wrong with that sentence?"</li> <li>5. The teacher points out the incorrect word</li> <li>6. The teacher asks either/or question(s)</li> <li>7. The teacher identifies the correct answer</li> <li>8. The teacher explains why</li> </ol> |
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**Figure 1.** Mediation inventory of teacher prompts (Lantolf & Poehner, 2010, p. 20)

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|---|
| <ol style="list-style-type: none"> <li>1. Clarifying the task</li> <li>2. Accepting a response</li> <li>3. Showing affect</li> <li>4. Asking the learner to identify the problem</li> <li>5. Locating part of the text needing improvement</li> <li>6. Asking to clarify meaning</li> <li>7. Identifying the problem in the text</li> <li>8. Asking to consider a possible solution</li> <li>9. Checking conceptual understanding</li> <li>10. Providing metalinguistic clues</li> <li>11. Providing content clues</li> <li>12. Rejecting the response with explanation(s)</li> <li>13. Explaining the problem</li> <li>14. Exemplifying or illustrating</li> <li>15. Providing a choice of possible solution(s)</li> <li>16. 16. Providing the correct solution</li> </ol> |
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**Figure 2.** Tutor mediational moves ranging from the most implicit to the most explicit, originally used for DA of learners' writing ability (Shrestha & Coffin, 2012, p. 61)

While the afore-mentioned primary theme reflects on the dual function of DA (i.e., both determining learners' abilities and advancing them), the second theme will elucidate how DA is different from both FA and scaffolding.

### ***DA, Formative Assessment, and Scaffolding: Not Like Three Peas in a Pod***

This theme attempts to recount whether DA, FA, and scaffolding are the same, similar, or dissimilar undertakings. To start with, FA is generally informal (Rea-

Dickins & Gardner, 2000) and unsystematic (Poehner & Lantolf, 2005). Also, FA is not necessarily concerned with providing learners with attuned instruction when needed and interacting with them to promote their maturing abilities, nor does it seriously focus on how learners function in the process of assessment when they are provided with assistance and guidance. Despite all its merits, “FA seems to be a hit-or-miss process that varies from teacher to teacher and presumably even for the same teacher from episode to episode” (Poehner & Lantolf, 2005, p. 254) and its applicability is mainly constrained to classrooms. In contrast, taking heed of the pedagogical function of assessment (Rea-Dickins & Gardner, 2000), DA is systematic, can be carried out either formally, “whether these are achievement, proficiency, or aptitude tests” (Poehner & Lantolf, 2005, p. 261), or informally in mainstream education; DA is concerned with the way learners engage and improve in the process of development.

Although FA is not aimed at development, development *may* occur via FA, that is, FA can exceed its utility beyond providing feedback and lead learners to enhanced performance via dialogic interaction (see Ellis, 2003; Rea-Dickins, 2001, 2004), but it is regarded as an ancillary matter, because FA, as a process through which “assessment-elicited evidence of students’ status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics” (Popham, 2011, p. 270), is interested in gathering information about students’ strengths and weakness and/or the effectiveness of teachers “to improve unsuccessful yet still modifiable instruction” (Popham, 2011, p. 10). Put another way, FA is mainly concerned with informing further decisions on instructional materials, “providing information to improve” (Purpura, 2016, p. 201) and the identification of learning and instructional gaps, but DA aims to promote learners’ development through instructional intervention.

According to Lantolf and Poehner (2004), interventionist DA is close to summative assessment, and interactionist DA partly parallels FA. However, while DA highlights the inseparability of assessment and teaching, assistance and feedback offered in summative assessment can pose a threat to the reliability and validity of assessment results. In current approaches to formative and summative assessment, “learning is a potential consequence that is sometimes unintended” (Poehner & Lantolf, 2005, p. 55); however, DA unites assessment and instruction to attain a single ultimate goal: learner development.

Leung (2007) expounds on the differences and similarities between DA and assessment *for* learning (A<sub>f</sub>L), which bears a close resemblance to FA, as follows: although both A<sub>f</sub>L and DA aim at improving learning and using learners’ current ability as the starting point for assessment by providing teacher intervention via interactive feedback, there are two main differences between them: First, while DA is grounded in Vygotsky’s SCT, A<sub>f</sub>L is not bound to a given developmental theory. Second, DA seeks student long-term development, but A<sub>f</sub>L is generally concerned with assisting learners during a given task (see also Poehner & Lantolf, 2005).

In a similar vein, while scaffolding, as “a legitimate form of assistance that plays a crucial role in language education” (Davin & Donato, 2013, p. 17), gives priority to task completion, in DA, development, that is, “conscious awareness and control of a particular ability” (Poehner & Lantolf, 2005, p. 260), takes precedence over carrying out a given task (also see Valsiner & van der Veer, 1993). In other words, FA and scaffolding tend to support learner performance and ensure task completion, but DA focuses on the negotiation of mediation to promote development. As Gagné and Parks (2013) put it, successful attempts at scaffolding are those which have a successful outcome (e.g., correction of all errors). In DA, however, scaffolding learners into participation in a situated practice is used during the initial stages of assessment as a way to diagnose learners’ ZPD, and scaffolding initiates the process of DA by enabling the mediator to assess learners’ ZPD and provide them with mediation where needed (Davin & Donato, 2013). Despite the differences, DA and scaffolding, as two forms of assistance, are not two mutually exclusive activities and should not be considered as dichotomous; they can both be put to use to maintain the unity of learning and development.

### ***Secondary Themes***

In this section, informed by the tentative assumptions derived from the primary themes, which provides a basis for describing and identifying further themes, the data were translated into one another by comparing and reconceptualizing the results of the studies. In so doing, relationships, constructs, categories, analogies, discrepancies, and interpretations from the selected studies were subject to constant comparative method, which includes overlapping and recursive comparisons (see LeCompte and Preissle, 1993). A close reading of the 40 studies and synthesizing the data that appeared in the primary themes resulted in the emergence of the following overarching, secondary themes that can help better capture the nature and experience of DA. Below is a descriptive and interpretive report of the two secondary themes.

### ***DA: A Platform for Fairness Amelioration in Education***

Unlike the entrenched premise that DA is low-stakes, “classroom assessment is not necessarily low-stakes: high-stakes decisions are often predicated on learners’ in-class performance” (Poehner & Lantolf, 2005, p. 252). Classroom assessment, hence, can result in irreversible, fateful decisions, and revisiting the issue of fairness in light of DA principles is theoretically viable. Fairness in DA calls for using every means to fully promote and support individual learner development through mediation. This does not mean that all individuals are to be treated as if they were the same, nor does it claim that “a commitment to fairness requires teachers to offer the same forms of support to all learners” (Poehner, 2009b, p. 489); conversely, it entails acknowledging that some individuals need more time and resources than others to achieve success (Poehner, 2011a). In fact, fairness in DA is “reframed with the understanding that the

quality of support offered may vary across individuals” (Lantolf & Poehner, 2013, p. 141), and almost all advocates of DA contend that all learners should be assisted in the development of their abilities regardless of their past academic record.

According to Kaniel (2010), the onus is on DA to fight inequality in education by providing learners with equal opportunities and fine-tuned intervention. Also, “we should not forget that the main reason for assessment reform involves professional questions with moral and ethnic implications that oblige us to seek the greatest accuracy for the sake of those we assess” (Kaniel, 2010, pp. 104-105).

The interactionist orientation towards DA, which does not follow a pre-determined, standardized manner, does not allow for comparisons across learners, and DA is known to be less biased in favor of ethnic minorities (see Hessels, 2000). Moreover, the very contention that a low learning potential score (LPS), which is used to assess learners’ potential for learning (Kozulin & Garb, 2002), does not reflect whether and to what extent a learner can learn at all is in line with Vygotsky’s concern for fairness and access (Poehner, 2011a; van Compernelle & Zhang, 2014). DA addresses access and fairness through the provision of systematic and purposeful mediation, which is sensitive to learner needs and simultaneously diagnoses and supports ongoing development (see Poehner & Van Compernelle, 2011). DA is also hailed as a “nonbiased approach to evaluating language learning potential” (Chieh-Fang, 2019, p. 891). Therefore, a low LPS may simply signify that the type of provided mediation did not suit a learner down to ground.

DA tends to hold accountable the adequacy of psychometric properties of assessment procedures in assessment *of* the ZPD and/or the appropriateness of the proposed instruction or collaboration in assessment *in* the ZPD that has been created as a result of assessment. Put another way, it is not only learners’ current level of development but also the appropriateness and sufficiency of assessment interventions and instrumentation that determine the validity and fairness of assessment and the legitimacy of the interpretation of its results.

### ***DA: An Inclination towards Experientialism***

Experientialism, also known as pragmatism, pertains to the reality of experience. This worldview contends that reality is in a state of flux and applying our experiences and thoughts to problems, as they arise, is prioritized over reckoning the truth to be absolute and unchanging. The very essence of this theme is that DA does not succumb to psychometric aspects of validation in static assessment. So, it is important for educators to raise awareness of how validity, reliability, and generalizability are conceived of in DA.

Conceptualizing validity as a process of figuring out what individuals’ performance on a test reveals about the targeted construct(s) and how this information can predict their performance in other situations, and bearing in mind

the technical and statistical analyses employed in standardized tests, one might take the view that “testing and classroom assessment are completely different undertakings” (Poehner, 2011b, p. 254). In fact, psychometric and formative readings of assessment apparently differ in terms of their purposes, methods, contexts, forms of evidence, and analytical procedures (Moss, 2003; Poehner, 2011b).

Addressing what assessment unveils about individuals’ abilities, validity has always been at the heart of assessment. Attempting to shed light on validity in L2 DA, Poehner (2011b) expounded on two interrelated foci: micro validity and macro validity. He posited that micro validity is concerned with the appropriateness of particular dialogic or scripted mediating moves during interaction. The process of micro validity in L2 DA commences with the initial learner action, that is, a learner’s response to a task. Then, the mediator interprets the response, formulates a tentative diagnosis of learner abilities, and offers suitable mediation. Informed by learner responsiveness to mediation, the mediator may reject or accept his/her provisional interpretation of learner development. Next, the mediator keeps gauging learner response to determine the appropriate form of the subsequent mediation until the learner takes control over his/her independent performance.

Macro validity, in contrast, examines how successful the interactions are and how the entire DA session helps reveal and promote learner development. Although in both micro validity and macro validity, mediation and learner responsiveness are the core considerations, the latter focuses on *changes* in the two aforementioned factors, as heralds of learner development. As Poehner (2011b) points out, the absence of change is also important to diagnosing learners’ ZPD as it helps one interpret the magnitude of the problem.

In view of the fact that the practical implementation of DA calls for making better informed decisions at each and every single stage of various mediational moves as well as the case of placement decision making (see Anton, 2003), the consequential validity (Messick, 1988) of DA is not overlooked. Laing and Kamhi (2003) rightly point out that learners’ actual performance is a more realistic portrayal of their language learning difficulty than psychometric criteria given by norm-referenced tests. It might seem prudent to presume that DA is more concerned with the interpretation of the processes that underlie learners’ assisted and unassisted performance, but not the product qua product (i.e., their performance) nor assessment instruments per se; so, its construct validity pertains to longitudinal, qualitative analyses of learners’ performance. Moreover, since DA has the potential to converge different evidence of learners’ performance, background, and abilities over an extended period of time (e.g., during a whole semester), it can potentially be regarded as consequentially valid.

Students’ patterns of responsiveness to a series of instructional episodes (Carney & Cioffi, 1990) envisage the possibility of giving correct answers to more challenging questions (Feuerstein, Rand, & Hoffman, 1979) and are indicative of learners’ latent learning potential, which contributes to predictive validity of DA. This, however, does not mean that a single unassisted performance

is an accurate indicator of learners' abilities. In DA, generalizability is framed in terms of learners' ongoing performance and development (Poehner, 2007), and it is to be conceived of in terms of transcendence activities, in which prior interactions serve as a blueprint for further mediation (Poehner, 2007). According to Carlson and Wiedl (as cited in Dorfler, Golke, & Artelt, 2009), dynamic intelligence tests are better than static intelligence tests in terms of predicting school achievement, and they are at an advantage regarding the validity of test results.

One must bear in mind that DA is after promoting learner development and from a Vygotskian perspective, "there is no endpoint to development" (Poehner, 2007, p. 337). DA is after promoting learners' ability and undoing the initial projections about their capabilities. Therefore, approaching the rigor of DA, in general, and its predictive validity, in particular, using the ontological perspective of non-dynamic, traditional assessment would be far off the mark. The stance taken on the predictive validity of DA depends heavily on the way Vygotsky's concept of ZPD and its relationship to assessment are looked at. In Allal and Pelgrims Ducrey's (2000) view, if one contends that the educational aim of assessment is to predict learning potential and holds that assessment procedures have to do with scripted teaching interventions and quantitative data, they are after 'assessment *of* the ZPD', which can be used for making decisions about placement and organization of teaching contexts (i.e., schooling, classrooms, etc.). However, if one conceives of assessment as a quest for analyzing teaching-learning processes and their influence on subsequent instruction, whose object is domain-specific (i.e., subject-matter knowledge) and is carried out via non-scripted, individualized mediator interventions and qualitative observations, they are taking an 'assessment *in* the ZPD' approach to assessment.

The two aforementioned concepts have also been addressed by Poehner (2009a, p. 252) as 'assessment of the ZPD' and 'teaching in the ZPD' respectively; while the former approaches DA from a testing perspective, the latter does so from a teaching perspective, and the two notions "need not be mutually exclusive" (Poehner, 2009a, p. 255). Allal and Pelgrims Ducrey (2000) note that despite being present in Vygotsky's writing, the two perspectives develop contrasting conceptions of the relationship between assessment and the ZPD. However, "their potential complementarity in educational practice" (Allal & Pelgrims Ducrey, 2000, p. 149) cannot be ignored.

Reliability refers to consistency, "often meaning instrument consistency" (Mackey & Gass, 2012, p. 128), standardization, and "stability" (Buchel & Scharnhorst, as cited in Lantolf & Poehner, 2004, p. 67). Interventionist approaches to DA employ standardized forms of mediation and predesigned, structured intervention to minimize potential measurement error. However, in interactionist DA, in which measurement is eschewed, for assistance to be effective in promoting learner development, it must be tailored to learners' unstable, dynamic, and open responsiveness to mediation (Feuerstein, Rand, & Rynders, 1988) and "the more reliable the procedure, the less effective it is in promoting individual development" (Lantolf & Poehner, 2004, p. 67).



Last but not least, as Fulcher and Davidson (2007) put it, reliability in a classroom context is ensured as long as decisions about the subsequent instructional material and decision as to whether the materials need to be recycled are appropriate and are aimed at satisfying learners' needs at a given point in time. Also, "whether these kinds of decisions tend to be right for a range of individuals in a class over time would be the equivalent of generalizability in large-scale testing" (Fulcher & Davidson, 2007, p. 32).

## Final Remarks

The results of the present study promise pedagogical implications for language teachers to bear in mind that in order for instruction to be effective and worthwhile, not only should links between assessment and teaching in all classroom practices be made (Lidz, 1991), but also feedback and results obtained from each stage of classroom assessment must feed into the subsequent mediational moves that will be employed. In classroom contexts, as Isaacs and Trofimovich (2017) put it, such assessment practices as assessment for learning, learning-oriented assessment, and dynamic assessment have gained currency because they can simultaneously promote teaching and learning. In addition, DA boosts learners' motivation and confidence (see Rashidi & Bahadori Nejad, 2018) and "furthers cognitive, language, and developmental skills" (Karami, Howlett, & Bowles, 2019, p. 52).

Factoring in the essence of the two primary themes, teachers and mediators are to take into account that DA should ultimately be after assisting students with transferring the target constructs they have learned into more difficult transfer tasks and beyond a here-and-now given task (i.e., microgenesis). Employing DA, teachers must offer learners mediation in the form of scaffolding in order to identify the potential for change in their language skills when different levels of support, in the form of mediational moves, are offered (Lagace & Lefebvre, 2017). As far as the practical implications of the secondary themes are concerned, the secondary themes denote that adopting practice-oriented, problem-centered, and real-world approaches toward classroom assessment, which are in line with experientialism and pragmatic worldviews in pedagogy, is a viable alternative to the post-positivist worldview and reductionism (see Creswell, 2009). Having this in mind, policymakers and stakeholders can refurbish how DA has found its way to and is currently implemented in the classroom context and pave the way and/or take measures for proper and more effective implementation of DA in classroom assessment. Moreover, distilling the findings of 40 scholarly articles on DA, the presented themes can help teachers and mediators place their own instructional and assessment practices on a more scientific footing by moving beyond traditional question-response-feedback classroom discourse and engaging in learners' ZPD with the aim of fostering learner development.

In addition, the findings of this study provide insights into the crux of DA and its philosophical worldview. In fact, the burgeoning interest in carrying out

research on DA signifies that it is an important avenue requiring more empirical attention. Given that secondary research can do much to stimulate the development of the field of SLA, future research can attest the viability of the extracted themes, presented in the current work, and can resort to meta-syntheses and discursive, systematic reviews of the related literature to accumulate knowledge from individual studies and identify their analogies/contradictions as well as their shared characteristics to provide a deeper level of understanding of DA in language pedagogy.

As far as the delimitations of this meta-synthesis are concerned, it should be noted that conference presentations and unpublished theses, dissertations, and papers, also known as “fugitive literature” (Norris & Ortega, 2000, p. 431), were not included in the data set. However, the inclusion of such research could, doubtless, flesh out new dimensions of DA and diminish the effect of publication bias of the primary research reports on the present work. A limitation of the present study is that the findings of the present meta-synthesis, like many others, are limited by the discussions and conclusions of the primary studies and the related literature, and so is the case with the quality of its cited arguments. Also, by and large, it is surmised that metaresearchers might come in for criticism from the original researchers of primary studies for misrepresenting or leaving out important aspects of their work and also from other scholars in the field who have conflicting views on pivotal issues discussed (see McCormick, Rodney, & Varcoe, 2003). This potential problem lies with any study taking a meta-analytic approach; the present work is no exception.

## References

- Ableeva, R., & Lantolf, J. (2011). Mediated dialogue and the microgenesis of second language listening comprehension. *Assessment in Education: Principles, Policy & Practice*, 18(2), 133-149.
- Aljaafreh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, 78, 465-483.
- Allal, L., & Pelgrims Ducrey, G. (2000). Assessment of or in the zone of proximal development. *Learning and Instruction*, 10, 137-152.
- Anton, M. (2003, March). *Dynamic assessment of advanced foreign language learners*. Paper presented at American Association of Applied Linguistics, Washington, D.C.
- Anton, M. (2009). Dynamic assessment of advanced second language learners. *Foreign Language Annals*, 42(3), 576-598.
- Au, W. (2007). High-stakes testing and curricular control: A qualitative metasynthesis. *Educational Researcher*, 36(5), 258-267.
- Bair, C. R. (1999, November). *Meta-Synthesis: A new research methodology*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, San Antonio, Texas.
- Blachowicz, C. L. Z. (1999). Vocabulary in dynamic reading assessment: Two case studies. *Journal of Reading Psychology*, 20, 213-236.
- Bondas, T., & Hall, E. O. C. (2007). Challenges in approaching meta-synthesis research. *Qualitative Health Research*, 17(1), 113-121.

- Brown, C. P., & Lan, Y. (2015). A qualitative metasynthesis comparing U.S. teachers' conceptions of school readiness prior to and after the implementation of NCLB. *Teaching and Teacher Education, 45*, 1-13.
- Camilleri, B., & Botting, N. (2013). Beyond static assessment of children's receptive vocabulary: The dynamic assessment of word learning (DAWL). *International Journal of Language and Communication Disorders, 48*(5), 565-581.
- Carney, J. J., & Cioffi, G. (1990). Extending traditional diagnosis: The dynamic assessment of reading abilities. *Reading Psychology, 11*(3), 177-192.  
doi:10.1080/0270271900110302
- Chieh-Fang, L. (2019). Dynamic assessment of phonological awareness in young foreign language learners: Predictability and modifiability. *Reading and Writing: An Interdisciplinary Journal, 32*(4), 891-908.
- Corbin, J. M., & Strauss, J. M. (2007). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3<sup>rd</sup> ed.). Los Angeles, CA: Sage.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. London, England: Sage.
- Daniels, H. (Ed.). (2005). *An Introduction to Vygotsky* (2<sup>nd</sup> ed.). London, England: Routledge.
- Davin, K. J. (2013). Integration of dynamic assessment and instructional conversations to promote development and improve assessment in the language classroom. *Language Teaching Research, 17*(3) 303-322.
- Davin, K. J., & Donato, R. (2013). Student collaboration and teacher-directed classroom dynamic assessment: A complementary pairing. *Foreign Language Annals, 46*(1), 5-22.
- De Gagne, J. C., & Walters, K. (2009). Online teaching experience: A qualitative metasynthesis (QMS). *MERLOT Journal of Online Learning and Teaching, 5*(4), 577-589.
- Dinsmore, T. H. (2006). Principles, parameters, and SLA: A retrospective meta-analytic investigation into adult L2 learners' access to universal grammar. In J. M. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 53-90). Amsterdam, the Netherlands: John Benjamins.
- Dorfler, T., Golke, S., & Artelt, C. (2009). Dynamic assessment and its potential for the assessment of reading competence. *Studies in Educational Evaluation, 35*, 77-82.
- Ellis, R. (2003). *Task-based language learning and teaching*. England: Oxford University Press.
- Ennis, R. H. (1999). Test reliability: A practical exemplification of ordinary language philosophy. Retrieved from <http://ojs.ed.uiuc.edu/index.php/pes/article/view/2055>
- Feuerstein, R., Rand, Y., & Hoffman, M. (1979). *Dynamic assessment of retarded performer*. Baltimore, MD: University Park Press.
- Feuerstein, R., Rand, Y., & Rynders, J. E. (1988). *Don't accept me as I am: Helping "retarded" performers excel*. New York, NY: Plenum.
- Fisher, R. (2012). Teaching writing: A situated dynamic. *British Educational Research Journal, 38*(2), 299-317.
- Fuchs, D., Compton, D. L., Fuchs, L. S., Bouton, D., & Caffrey, E. (2011). The construct and predictive validity of a dynamic assessment of young children learning to read: Implications for RTI frameworks. *Journal of Learning Disabilities, 44*(4), 339-347.
- Fulcher, G., & Davidson, F. (2007). *Language testing and assessment: An advanced resource book*. New York, NY: Routledge.
- Gagné, N., & Parks, S. (2013). Cooperative learning tasks in a Grade 6 intensive ESL class: Role of scaffolding. *Language Teaching Research, 17*(2), 188-209.

- Gersten, R., & Baker, S. (2000). What we know about effective instructional practices for English-language learners: A multi-vocal research synthesis. *Exceptional Children*, 66, 454-470.
- Gillam, R. B., Pena, E. D., & Miller, L. (1999). Dynamic assessment of narrative and expository discourse. *Topics in Language Disorders*, 20(1), 33-47.
- Goldschneider, J., & DeKeyser, R. M. (2001). Explaining the "natural order of L2 morpheme acquisition" in English: A meta-analysis of multiple determinants. *Language Learning*, 51, 1-50.
- Guk, I., & Kellogg, D. (2007). The ZPD and whole class teaching: Teacher-led and student-led interactional mediation of tasks. *Language Teaching Research*, 11(3), 281-299.
- Hasson, N., & Dodd, B. (2014). Planning intervention using dynamic assessments: A case study. *Child Language Teaching and Therapy*, 30(3), 353-366.
- Hedges, L. V. (1992). Meta-analysis. *Journal of Educational Statistics*, 17(4), 279-296.
- Hessels, M. G. P. (2000). The learning potential test for ethnic minorities (LEM): A tool for standardized assessment of children in kindergarten and the first years of primary school. In C. S. Lidz & J. G. Elliott (Eds.), *Dynamic assessment: Prevailing models and applications* (pp. 109-131). Amsterdam, the Netherlands: Elsevier.
- Hill, K., & Sabet, M. (2009). Dynamic speaking assessment. *TESOL Quarterly*, 43(3), 537-545.
- Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.
- Isaacs, T., & Trofimovich, P. (Eds.) (2017). *Second language pronunciation assessment: Interdisciplinary perspectives*. Blue Ridge Summit, PA: Multilingual Matters.
- Jeon, E. H., & Kaya, T. (2006). Effects of L2 instruction on interlanguage pragmatic development: A meta-analysis. In J. M. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 165-211). Amsterdam, the Netherlands: John Benjamins.
- Kaniel, S. (2010). Domain specific vs domain general: Implications for dynamic assessment. *Gifted Education International*, 26, 95-109.
- Karami, A., Howlett, K., & Bowles, F. A. (2019). Implementing dynamic assessment in assessing vocabulary development: What the literature says. *Journal on English Language Teaching*, 9(2), 52-59.
- Keck, C. M., Iberri-Shea, G., Tracy-Ventura, N., & Wa-Mbaleka, S. (2006). Investigating the empirical link between task-based interaction and acquisition: A meta-analysis. In J. M. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 91-131). Philadelphia, PA: John Benjamins.
- Kent, J. (2000). *Social perspectives on pregnancy and childbirth for midwives, nurses and the caring professions*. Buckingham, England: Open University Press.
- Kozulin, A., & Garb, E. (2002). Dynamic assessment of EFL text comprehension. *School Psychology International*, 23, 112-127.
- Krashen, S. (1999). Seeking a role for grammar: A review of some recent studies. *Foreign Language Annals*, 32, 245-257.
- Lagace, J., & Lefebvre, P. (2017). *Accessibility and active offer*. Canada: University of Ottawa Press.
- Laing, S. P., & Kamhi, A. (2003). Alternative assessment of language and literacy in culturally and linguistically diverse populations. *Language, Speech, and Hearing Services in Schools*, 34, 44-55.
- Lantolf, J. P. (2006). Language emergence: Implications for applied linguistics - A sociocultural perspective. *Applied Linguistics*, 27(4), 717-728.
- Lantolf, J. P. (2009). Dynamic assessment: The dialectic integration of instruction and assessment. *Language Teaching*, 42(3), 355-368.  
doi:10.1017/S0261444808005569

- Lantolf, J. P., & Poehner, M. E. (2004). Dynamic assessment of L2 development: Bringing the past into the future. *Journal of Applied Linguistics*, 1(1), 49-72.
- Lantolf, J. P., & Poehner, M. E. (2010). Dynamic assessment in the classroom: Vygotskian praxis for second language development. *Language Teaching Research*, 15(1), 11-33.
- Lantolf, J. P., & Poehner, M. E. (2013). The unfairness of equal treatment: Objectivity in L2 testing and dynamic assessment. *Educational Research and Evaluation*, 19(2-3), 141-157. doi:10.1080/13803611.2013.767616
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. England: Oxford University Press.
- LeCompte, M. D., & Preissle, J. (1993). *Ethnography and qualitative design in educational research*. New York, NY: Academic Press.
- Lee, S., & Huang, H. (2008). Visual input enhancement and grammar learning: A meta-analytic review. *Studies in Second Language Acquisition*, 30(3), 307-331.
- Leung, C. (2007). Dynamic assessment: Assessment for and as teaching? *Language Assessment Quarterly*, 4(3), 257-278. doi:10.1080/15434300701481127
- Lidz, C. S. (1991). *Practitioner's guide to dynamic assessment*. New York, NY: Guilford Press.
- Lin, T., Hsu, Y., Lin, S., Changlai, M., Yang, K., & Lai, T. (2012). A review of empirical evidence on scaffolding for science education. *International Journal of Science and Mathematics Education*, 10, 437-455.
- Lou, Y., Abrami, P. C., Spence, J. C., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping: A meta-analysis. *Review of Educational Research*, 66, 423-458.
- Mackey, A., & Gass, S. M. (Eds). (2012). *Research methods in second language acquisition*. West Sussex, England: Wiley-Blackwell.
- Masgoret, A., & Gardner, R. C. (2003). Attitudes, motivation, and second language learning: A meta-analysis of studies conducted by Gardner and associates. *Language Learning*, 53, 123-163.
- Moss, P. A. (2003). Reconceptualizing validity for classroom assessment. *Educational Measurement: Issues and Practice*, 22(4), 13-25.
- Myburgh, C., & Poggenpoel, M. (2009). Meta-synthesis on learners' experience of aggression in secondary schools in South Africa. *South African Journal of Education*, 29, 445-460.
- Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50, 417-528.
- Norris, J. M., & Ortega, L. (2007). The future of research synthesis in applied linguistics: Beyond art or science. *TESOL Quarterly*, 41(4), 805-815.
- Major, C. H., & Savin-Baden, M. (2010). *An introduction to qualitative research synthesis: Managing the information explosion in social science research*. New York, NY: Routledge.
- McCormick, J., Rodney, P., & Varcoe, C. (2003). Reinterpretations across Studies: An approach to meta-Analysis. *Qualitative Health Research*, 13(7), 933-944.
- Messick, S. (1988). The once and future issues of validity: Assessing the meaning and consequences of measurement. In H. Wainer & H. I. Braun (Eds.), *Test validity* (pp. 33-45). Hillsdale, NJ: Erlbaum.
- Michalowski, R. J. (1997). Ethnography and anxiety: Field work and reflexivity in the vortex of U.S.-Cuban relations. In R. Hertz (Ed.), *Reflexivity and voice* (pp. 45-69). Thousand Oaks, CA: Sage.
- Murphy, R., & Maree, D. J. F. (2006). Meta-analysis of dynamic assessment research in South Africa. *Journal of Cognitive Education and Psychology*, 6(1), 32-60.

- Nassaji, H., & Swain, M. (2000). A Vygotskian perspective on corrective feedback in L2: The effect of random versus negotiated help on the learning of English articles. *Language Awareness, 9*(1), 34-51.
- Ortega, L. (2003). Syntactic complexity measures and their relationship to L2 proficiency: A research synthesis of college-level L2 writing. *Applied Linguistics, 24*, 492-518.
- Poehner, M. E. (2007). Beyond the test: L2 dynamic assessment and the transcendence of mediated learning. *The Modern Language Journal, 91*(3), 323-340.
- Poehner, M. E. (2008). *Dynamic assessment: A Vygotskian approach to understanding and promoting L2 development*. New York, NY: Springer.
- Poehner, M. E. (2009a). Dynamic assessment as a dialectical framework for classroom activity: Evidence from second language (L2) learners. *Journal of Cognitive Education and Psychology, 8*(3), 252-268.
- Poehner, M. E. (2009b). Group dynamic assessment: Mediation for the L2 classroom. *TESOL Quarterly, 43*(3), 471-791.
- Poehner, M. E. (2011a). Dynamic Assessment: Fairness through the prism of mediation. *Assessment in Education: Principles, Policy & Practice, 18*(2), 99-112.
- Poehner, M. E. (2011b). Validity and interaction in the ZPD: Interpreting learner development through L2 Dynamic Assessment. *International Journal of Applied Linguistics, 21*(2), 244-263.
- Poehner, M. E. (2012). The zone of proximal development and the genesis of self-assessment. *The Modern Language Journal, 96*(4), 610-622. doi:10.1111/j.1540-4781.2012.01393.x
- Poehner, M. E., & Lantolf, J. P. (2005). Dynamic assessment in the language classroom. *Language Teaching Research, 9*(3), 233-265.
- Poehner, M. E., & Lantolf, J. P. (2010). Vygotsky's teaching-assessment dialectic and L2 education: The case for dynamic assessment. *Mind, Culture, and Activity, 17*, 312-330.
- Poehner, M. E., & Lantolf, J. P. (2013). Bringing the ZPD into the equation: Capturing L2 development during computerized dynamic assessment (C-DA). *Language Teaching Research, 17*(3), 323-342.
- Poehner, M. E., & van Compernelle, R., A. (2011). Frames of interaction in dynamic assessment: Developmental diagnoses of second language learning. *Assessment in Education: Principles, Policy & Practice, 18*(2), 183-198.
- Popham, J. W. (2011). *Classroom assessment: What teachers need to know*. Boston, MA: Pearson Education.
- Purpura, J. E. (2016). Second and foreign language assessment. *The Modern Language Journal, 100*, 190-208.
- Rashidi, N., & Bahadori Nejad, Z. (2018). An investigation into the effect of dynamic assessment on the EFL learners' process writing development. *Sage Open, 8*(2), 1-14. doi: 10.1177/2158244018784643
- Rea-Dickins, P. (2001). Mirror, mirror on the wall: Identifying processes of classroom assessment. *Language Testing, 18*, 429-62.
- Rea-Dickins, P. (2004). Understanding teachers as agents of assessment. *Language Testing, 21*, 249-258.
- Rea-Dickins, P., & Gardner, S. (2000). Snares and silver bullets: Disentangling the construct of formative assessment. *Language Testing, 17*, 215-43.
- Ross, S. (1998). Self-assessment in second language testing: A meta-analysis and analysis of experiential factors. *Language Testing, 15*, 1-20.
- Sandelowski, M. (2006). "Meta-Jeopardy": The crisis of representation in qualitative metasynthesis. *Nursing Outlook, 54*(1), 10-16.

- Shrestha, P., & Coffin, C. (2012). Dynamic assessment, tutor mediation and academic writing development. *Assessing Writing, 17*, 55-70.
- Slavin, R. E., & Cheung, A. (2005). A synthesis of research on language of reading instruction for English language learners. *Review of Educational Research, 75*, 247-284.
- Stahl, S. A., & Fairbanks, M. M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research, 56*, 72-110.
- Statham, A. (1988). Women's approach to work: The creation of knowledge. In A. Statham (Ed.), *The worth of women's work: A qualitative synthesis*. Albany, NY: State University of New York Press.
- Sternberg, R. J., & Grigorenko, E. L. (2002). *Dynamic testing: The nature and measurement of learning potential*. England: Cambridge University Press.
- Strobel, J., & van Barneveld, A. (2009). When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms. *Interdisciplinary Journal of Problem-Based Learning, 3*(1), 44-58.
- Suri, H., & Clarke, D. (2009). Advancements in research synthesis methods: From a methodologically inclusive perspective. *Review of Educational Research, 79*, 395-430.
- Swanson, H. L., & Lussier, C. M. (2001). A selective synthesis of the experimental literature on Dynamic Assessment. *Review of Educational Research, 71*(2), 321-363.
- Tang, X. (2009, February). *Qualitative meta-synthesis techniques for analysis of public opinions for in-depth study*. Paper presented at the First International Conference on Complex Sciences, Shanghai, China. doi:10.1007/978-3-642-02469-6\_111
- Thorne, S. E., Jensen, L., Kearney, M. H., Noblit, G. W., & Sandelowski, M. (2004). Qualitative metasynthesis: Reflections on methodological orientation and ideological agenda. *Qualitative Health Research, 14*, 1342-1365.
- Tierney, R. D. (2006). Changing practices: Influences on classroom assessment. *Assessment in Education, 13*(3), 239-264.
- Tuquero, J. M. (2011). A meta-ethnographic synthesis of support services in distance learning programs. *Journal of Information Technology Education: Innovations in Practice, 10*, 157-179.
- Valsiner, J., & Van der Veer, R. (1993). The encoding of distance: The concept of the zone of proximal development and its interpretations. In R. R. Cocking & K. A. Renninger (Eds.), *The development and meaning of psychological distance* (pp. 35-62). Hillsdale, NJ: Lawrence Erlbaum.
- Van Compernelle, R. A., & Kinginger, C. (2013). Promoting metapragmatic development through assessment in the zone of proximal development. *Language Teaching Research, 17*(3), 282-302.
- Van Compernelle, R. A., & Williams, L. (2012). Promoting sociolinguistic competence in the classroom zone of proximal development. *Language Teaching Research, 16*(1), 39-60.
- Van Compernelle, R. A., & Williams, L. (2013). Sociocultural theory and second language pedagogy. *Language Teaching Research, 17*(3), 277-281.
- Van Compernelle, R. A., & Zhang, H. S. (2014). Dynamic assessment of elicited imitation: A case analysis of an advanced L2 English speaker. *Language Testing, 31*(4), 395-412.
- Vygotsky, L. S. (1955/1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press. (Original work published in 1955).
- Walsh, D., & Downe, S. (2005). Meta-synthesis method for qualitative research: A literature review. *Journal of Advanced Nursing, 50*(2), 204-211.
- Yeomans, J. (2008). Dynamic assessment practice: Some suggestions for ensuring follow up. *Educational Psychology in Practice, 24*(2), 105-114. doi:10.1080/02667360802076107

## Appendix A

Descriptions of the Data Set (i.e., the Scholarly Articles Used in the Meta-Synthesis)

Author (date)	Purpose, method/data sources, participants/context
Carney & Cioffi (1990)	This article identified some DA instructional episodes that can be used by mediators to help learners promote their word recognition and reading comprehension capacities.
Aljaafreh & Lantolf (1994)	This study investigated the effects of other-regulation on the microgenetic development of an L2 among adult learners. Participants included three students enrolled in an eight-week second level (the most advanced level) ESL writing and reading course. Intent of the study was to illustrate how the negotiation of other-regulation in the ZPD promotes learning.
Blachowicz (1999)	Reporting on two case studies, this paper described a model for assessment of vocabulary difficulty within the framework of DA. Two seventh grade students were the participants. Purpose of the article was to examine the influence of unknown words on reading comprehension.
Allal & Pelgrims Ducrey (2000)	Examining the role of assessment in pedagogy, this paper gave a critical appraisal to the way in which the two following perspectives on ZPD interpret Vygotsky's writings: (a) it is possible to measure learners' ZPD as an individual trait showing stability across instructional settings, and (b) assessment intervenes in the ZPD which is constructed by a learner's ongoing interactions in a certain instructional context.
Nassaji & Swain (2000)	This case study investigated whether help provided within learners' ZPD was more effective than assistance provided randomly. Writing compositions of two adult, female Korean learners of English were used for data collection. The study aimed at signifying the importance of consciousness-raising and collaborative feedback in language learning.
Swanson & Lussier (2001)	This article summarized a meta-analysis of 30 published studies on DA. It aimed at (a) investigating whether DA outcomes are merely an artifact of design and (b) offering an explanation for the significant variations among effect sizes of the selected studies, which was found to be due to the function of ability group, chronological age, sample size, and type of assessment procedure.
Kozulin & Garb (2002)	This article delved into the implementation of DA in such curriculum-based areas as EFL in the pre-academic classroom. Participants included 23 academically at-risk students. The intent of the study was to discuss how DA procedures can shed light on students' learning potential and provide information to help develop efficient individual learning plans to meet their needs.
Laing & Kamhi (2003)	This paper looked at problems and recent solutions to the use of norm-referenced testing for culturally and linguistically diverse populations, with a focus on processing-dependent and DA procedures.
Lantolf & Poehner (2004)	This paper presented a theoretical framework for the application of DA procedures to L2 assessment and pedagogy. It reviewed the major approaches to DA and discussed some of the criticisms leveled against it. The paper concluded with recommendations for further research into the potential contributions of DA to applied linguistics.
Poehner & Lantolf (2005)	This paper focused on the implementation of DA in the L2 classroom setting. It also discussed the concept of the ZPD and its realization in DA procedures and the work of Reuven Feuerstein. Finally, it compared DA to formative assessment (FA), and suggested how FA might be reconceptualized according to DA principles.
Lantolf (2006)	This article explored the potential compatibility and connections between emergentism, chaos/complexity theory and dynamic systems theory (ECCTDST) and Vygotskian sociocultural theory (SCT). It also attended to the potential for the two theoretical perspectives to illuminate each other.
Murphy & Maree (2006)	This study conducted a meta-analysis on seven primary empirical studies to achieve a two-fold purpose: first, to assess the significance of the



Author (date)	Purpose, method/data sources, participants/context
Tierney (2006)	<p>synthesized effect size from a number of South African studies aiming at the investigation of the significance of DA interventions, and, second, to compare two meta-analytic software programs available online.</p> <p>This methodical review investigated how six sources, that is, educational research, evaluative inquiry, large-scale assessment, educational policy, professional development, and teachers' beliefs can influence and mediate assessment practices. It analyzed a group of purposively selected research articles and discussed cross-currents relating to research perspective, collaboration, and time.</p>
Guk & Kellogg (2007)	<p>This paper presented evidence that the way in which learners mediate tasks differs from the way in which teachers do so, and argued that this suggests learner-to-learner mediation is in important ways closer to 'internalization'. Participants included a group of EFL Korean pupils. Purpose of the article was to discuss why T-S and S-S interactional mediation do not create two different ZPDs but instead lie within a single, whole class ZPD.</p>
Leung (2007)	<p>This article attempted to provide a description of DA, discuss some of the criticisms raised by DA to conventional approaches to assessment, point out the differences and similarities between DA and FA, and discuss some of the implementation issues a DA perspective can raise in language learning and assessment.</p>
Poehner (2007)	<p>This article reconceptualized the problem of assessment generalizability from a qualitatively different perspective, that is, SCT. In this article, transcendence in the L2 domain was illustrated with examples of advanced learners of French.</p>
Yeomans (2008)	<p>This article outlined the challenges to the development of links between assessment and intervention and proposed three conditions that were regarded as liable to ensure this link.</p>
Anton (2009)	<p>This article reported on the implementation of diagnostic assessment, giving particular attention to the use of DA practices as a way to assess language abilities, intervene in learning, and document learners' growth. Participants included five third-year Spanish language majors in an advanced Spanish language program at the university level. Purpose of the article was to illustrate the potential of DA for L2 learning contexts.</p>
Dorfler, Golke, & Artelt (2009)	<p>This paper looked at a number of constraints on the DA of reading competence. It discussed how item response theory (IRT) models can (a) tackle the main problem of a train-within-test assessment of reading competence, which concerns dealing with performance changes induced by the test procedure itself, and (b) provide detailed measures of performance and learning ability in the domain of reading.</p>
Hill & Sabet (2009)	<p>This article described an attempt to employ DA methods in classroom speaking assessments. The study involved four cases of speaking assessment of a first-year speaking and listening class at a Japanese university with 18 students. Purpose of the study was to discuss the effectiveness of four particular applications of dynamic speaking assessment.</p>
Lantolf (2009)	<p>This article argued that development in formal educational activity is a fundamentally different process from development that happens in the everyday world. It analyzed two examples of interactionist DA between a mediator and an advanced L2 learner of French. The goal of this paper was to consider a new point of view on the relationship between language instruction and language assessment.</p>
Poehner (2009a)	<p>Presenting examples involving learners of French, this article tapped into DA in education and its role in L2 development and classroom teaching.</p>
Poehner (2009b)	<p>This article attended to a major challenge to implementing DA in L2 classrooms: constraints on the possibility of having one-to-one interactions with learners. It explored the use of G-DA with groups of L2 learners. Transcriptions of concurrent and cumulative G-DA interactions involving L2 classroom learners were presented. Intent of the article was to dissect how the group's ZPD could be promoted while supporting the development of individual learners.</p>

Author (date)	Purpose, method/data sources, participants/context
Kaniel (2010)	This article examined the scientific answer to the question of how far human mental activities and capabilities are domain general/domain-specific, and drawing some main conclusions, it attended to DA to give a concomitant answer to the question raised. The principles on which selection and development of assessment tasks can be based were also discussed.
Lantolf & Poehner (2010)	This article reported on the efforts of a full-time elementary school L2 Spanish teacher to implement principles of DA in a normal (i.e., non-experimental) classroom setting. Participants included six third-through fifth-grade students (aged ranging approximately 8-11 years). Intent of the article was to illustrate how interaction in the ZPD could redirect our attention from a focus on the product of development to its process.
Poehner & Lantolf (2010)	Adopting a DA approach, this article concerned a particular application of ZPD in language education. Participants included learners of French as a second language. Purpose of the article was to indicate how DA can have profound implications for formal testing and education, given that it posits a dialectical relation between instruction and assessment.
Ableeva & Lantolf (2011)	This study investigated the effects of DA on diagnosing and promoting listening comprehension. Seven intermediate university L2 learners of French participated in the study. It aimed at tracking learners' improvement in listening ability as a result of mediation and discussing how learners were able to transfer their ability to more complex texts.
Poehner (2011a)	This argumentative paper sought to strengthen dialogue between DA advocates and the broader assessment community by examining potential contributions DA may offer to answer such important questions as how assessment may support teaching and learning and how fairness in education may be pursued.
Poehner (2011b)	This paper underscored the need for a systematic and principled approach to evaluating claims about learner abilities and their development. Relying on the key validity notions of evidence, interpretations, and consequences in attending to the process of mediator-learner dialoguing, the paper expounded on a proposed model of validation in L2 DA.
Poehner & van Compernelle (2011)	Underlining the importance of conceiving of ZPD as a transformative activity, which dialectically unifies assessment and teaching, this paper outlined readings of the ZPD that have motivated many current approaches to DA. It transcribed interactions between a mediator and L2 learners, and identified how collaborative and cooperative interactional frames and be co-constructed between mediators and learners.
Poehner (2012)	This article approached learner self-assessment from a Vygotskian perspective, with a focus on the proposal of the ZPD. Data were collected from undergraduate university learners of L2 French as they composed a narrative while participating in a DA program. Purpose of the study was to explore how learner development regarding reflective evaluation of their performance occurred and to investigate challenges learners might experience as they endeavored to regulate not only their use of the L2 but also their performance.
Shrestha & Coffin (2012)	This qualitative study explored the value of tutor mediation in the context of academic writing development among undergraduate business studies students in open and distance learning, within a DA framework. Participants included two business studies students. The study aimed at analyzing tutor mediation and learner reciprocity and considering them alongside students' writing development.
van Compernelle & Williams (2012)	This article investigated the microgenetic development of learners' understanding of sociolinguistic variation in French during an instructional conversation (IC) by providing appropriate mediation that was sensitive to the class's ZPD. Participants included fourth-semester American university students of French. Purpose of the article was to illustrate how teacher-student collaborative interaction can develop learners' conceptual understanding of variation and orient the development of their performance.
Davín (2013)	This article explored how a primary school teacher utilized DA and

Author (date)	Purpose, method/data sources, participants/context
Davin & Donato (2013)	<p>instructional conversation (IC) frameworks to navigate dual goals of instruction and assessment while providing mediation attuned to learners' ZPD. The classroom in which the study was conducted was comprised of 17 students of Spanish as a foreign language, who ranged in age from 10 to 12 years old. The study aimed at contributing to a deeper understanding of the use of Vygotsky's ZPD construct to guide interaction within the classroom context.</p> <p>This article examined learners' collaboration during small-group tasks. Participants included 14 young language learners studying Spanish as a foreign language; six non-heritage language learners were selected as focus students, whose language proficiency ranged from novice-low to novice-high. Purpose of the article was to determine whether learners were able to mediate their peers during a collaborative writing task after receiving five days of classroom DA, and if so, in what ways such assistance was provided and whether this mediation was similar to or different from teacher mediation during DA.</p>
Gagné & Parks (2013)	<p>This study investigated how children in an intensive ESL class scaffolded each other while doing cooperative learning tasks. It focused on an intact class of 29 sixth-grade students (10-11 years of age). Purpose of the study was to examine the employed scaffolding strategies both qualitatively and quantitatively with regard to classroom culture and the structure of the cooperative learning tasks.</p>
Lantolf & Poehner (2013)	<p>This paper considered DA as it relates to L2 development. It discussed a number of key issues regarding L2 DA research such as the ontology of mediation, validity of DA procedures, interactionist DA, and interventionist DA.</p>
van Compernelle & Kinginger (2013)	<p>Implementing DA, this case study represented principles to assess and promote L2 metapragmatic capacities via engaging learners in cooperative interactions. The data were collected from American university students of French. Purpose of the article was to illustrate how support provided by a tutor around one questionnaire's items both assessed and promoted a learner's developing conceptual knowledge about social distance.</p>
van Compernelle & Williams (2013)	<p>This paper looked into the importance of pedagogical activity for SCT and discussed pedagogy from an SCT perspective.</p>
van Compernelle & Zhang (2014)	<p>This case study described the design, administration, and scoring of an elicited imitation test of grammatical competence in L2 English that integrated mediation through DA. The participant was an advanced Korean L2 English learner. Purpose of the study was to show how an item analysis can be used to track microgenetic development over the course of the test and consider the implications of DA to doing elicited imitation tasks.</p>