ZPD-assisted Intervention via Web 2.0 and Listening Comprehension Ability

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This article concentrates on theoretical and methodological issues at the joint of foreign language learning, language pedagogy, Web 2.0 technology and sociocultural theory (SCT), initially proposed by the Russian psychologist Vygotsky. More specifically, the article seeks to redress the current lack of diagnostic assessment in language instruction and the development of listening proficiency through online dynamic assessment via Web 2.0 technologies of Talk and Write and Skype in Iranian EFL learners at intermediate level. The article extends traditional understanding of listening assessment in foreign language contexts and applies online dynamic assessment to the development of learners' listening ability. The study demonstrates that online DA, due to its reliance on mediated dialogue, illuminates the sources of poor performance that are usually hidden during traditional assessments, which are non-dynamic in nature. Online DA is able to inform the instructional process regarding specific areas where learners need improvement and in so doing allows for appropriate intervention to help learners overcome these problems. The results of the study indicate that, through interactions in the ZPD, online DA permits to establish not only the actual level of learners' listening ability but also to diagnose/assess the potential level of their listening development, while at the same time promoting this development.

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Introduction

Language testing and assessment have always been influenced by changes in language teaching methods. Looking back into the history of language teaching, the methods can be classified into three categories of language-centered, learner-centered, and learning-centered methods (Ajideh & Nourdad, 2012). Changes in language teaching methods, moving toward learning-centered ones, have dramatically affected assessment orientations. Along with teaching methods, assessment systems moved from product-oriented to process-oriented.

Dynamic Assessment (DA) is a process-oriented/interactive approach to conducting assessments that is based on the Vygotskyan principles of mediation and assistance in the zone of proximal development. DA offers learners assistance whenever necessary during the performance of the assessment task through collaborative dialogue. At the heart of Vygotskyan and sociocultural approaches to language learning and DA are the concepts of mediation and social learning (Lantolf, 2000; Lantolf & Thorne, 2006). These key components of DA have taken on special relevance with the advent of social networks and online

communities through web 2.0 technologies that include an increased emphasis on user generated content, data and content sharing and collaborative effort.

As Nazari (2012) states, DA assumes a different perspective about assessment than that which is traditionally done by many classroom teachers. DA in language learning, due to its process-oriented nature, can offer new insights into assessment in the language classroom by revealing secrets about the abilities of individual students. While the results of traditional non-dynamic assessment (NDA) can only show the already existent abilities of the student, DA adjusted to the needs of particular learners makes it possible to evaluate the ability of the student to learn from the interaction with a teacher or a more competent peer and predict their possible future development.

Traditional assessment offers no scaffolding or social support for learning. Data from DA, by contrast, represents both the process and product of students' learning. DA is administered by an examiner who provides scaffolding, social support for learning, and intervention when a student fails. In other words, whereas traditional assessment measures independent performance (i.e., product), DA measures both independent performance and assisted performance (i.e., process). Independent performance is what the student can achieve alone; assisted performance is what the student can achieve with the help of the examiner.

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DA, an interactive, test–intervene–retest model of psychological and psycho-educational assessment, gives the examiner the chance to form a closer relationship with the student that will foster learning. In DA, the examiner not only gives performance-contingent feedback, but offers instruction in response to student failure to alter or enhance student achievement.

Synchronous Computer-Mediated Communication

Computer-mediated communication (CMC) has been defined as "synchronous or asynchronous electronic mail and computer conferencing, by which senders encode in text messages that are relayed from senders' computers to receivers (Walther, 1992, p. 52). CMC has also been described as "any communication patterns mediated through the computer" (Metz, 1992, p. 3). Computer mediated communication is divided into synchronous and asynchronous modes. In synchronous communication, all participants are online simultaneously. In asynchronous communication there are time constraints on communication messages and responses, as with emails. Walther and Burgoon (1992) argue that, "for many of us, CMC is no longer a novelty but a communication channel through which much of our business and social interaction takes place, and this transformation is expected to continue" (p. 51). They note, "CMC produces much different affective and relational patterns than do other

types of communication, due to the reduction and types of cues available to participants" (p. 51). This study urges the application of SCMC, social networks and online communities through web 2.0 technologies that include an increased emphasis on user generated content, data and content sharing and collaborative effort.

Significance and Purpose of the Study

This study lies in an interdisciplinary field of applied linguistics that includes foreign language learning, language pedagogy, and sociocultural theory of cognitive development, as proposed by Russian psychologist and educator Vygotsky (1978). More specifically, the study explores the pedagogical application of DA, a testing approach nurtured by Vygotsky's theory, to foreign language listening assessment and instruction.

Despite the fact that the development of listening proficiency has been generally recognized as a crucial component of foreign language learning and teaching, many scholars contend that listening comprehension is often treated as a Cinderella skill of L2 instruction (e.g. Nunan, 1997; Vandergrift, 1997) and that research in this area is still in its infancy (Omaggio-Hadley, 2000:184). Furthermore, a lack of L2 listening studies has been repeatedly emphasized in many reviews of scholarship on the subject over the years (e.g. Ur, 1984; Rubin, 1994; Vandergrift, 2007). As a result, this study aims to apply DA to L2 listening instruction and takes a further step to integrate online multimodal discourse through SCMC and web2.0 technologies to enrich meditational context and collaborative dialogue. In fact this study is an attempt to give learners more chance of social learning by active engagement in exploring the web through dialogic collaboration. In other words, the main objective of the study is to make it possible to observe students' potential level of development and obtain a richer and more complete understanding of students' microgenetic listening development in online DA.

Research Question

The primary goal of this study is to investigate the role of DA in diagnosing and promoting the development of listening comprehension in a foreign language via web 2.0 technologies. This goal is realized through the following research question:

Q1. To what extent can online dynamic assessment through web 2.0 technologies of Talk and Write and Skype enhance the listening ability in Iranian EFL learners at intermediate level?

Review of Literature

Definition and Scope of Dynamic Assessment

According to Haywood and Lidz (2007), the last five decades have witnessed an increasing interest in DA among psychologists and educators. As noted by Haywood and Lidz (2007), the hallmark of the studies that fall under the umbrella of DA is an active intervention provided by examiners during the test procedure and the assessment of examinees' response to intervention. Despite a wide array of current theoretical perspectives that share this type of assessment, many researchers contend that initially DA research was inspired by Vygotsky's work (Feuerstein, Rand, Jensen, Kaniel & Tzuriel, 1987) and finds its origins in his concept of the Zone of Proximal Development (Sternberg & Grigorenko, 2002; Lantolf & Thorne, 2006; Haywood & Lidz, 2007; Bodrova & Leong, 2007). Sternberg and Grigorenko (2002) point out that some of the current DA approaches are drawn directly from SCT.

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The most extensive recent publication on DA written by Haywood and Lidz (2007: 1) define this approach to assessment as follows: "an interactive approach to conducting assessments within the domains of psychology, speech/language, or education that focuses on the ability of the learner to respond to intervention." In a similar vein, Sternberg and Grigorenko (2002: 8) discuss DA as a form of testing that "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." These two definitions provide a conceptual footing of the current DA approaches. However, in their attempt to embrace the breadth and scope of DA research, the above definitions fail to specify theoretical profiles of various approaches to DA. For this study, the most relevant area of DA research is DA situated within the Vygotskyan tradition. . Following theoretical and methodological underpinnings of Vygotsky's theory, the present study adopts the definition of DA that draws directly from SCT:

> Dynamic assessment integrates assessment and instruction into a
> seamless, unified activity aimed at promoting learner development
> through appropriate forms of mediation that are sensitive to the
> individual's (or in some cases a group's) current abilities. In essence,
> DA is a procedure for simultaneously assessing and promoting

development that takes account of the individual's (or group's) zone
of proximal development. (Lantolf & Poehner, 2004: 50)

This definition incorporates such central aspects of SCT as the ZPD, mediation, development and, in so doing, distills a conceptual and theoretical basis for SCT-oriented DA.

DA formats and approaches

Two major formats have been developed over the years to implement DA in psychological and educational experimental settings. Sternberg and Grigorenko (2002) term these DA procedures the Sandwich format and Layer Cake format. They point out that these are not the only possible procedures but rather these are so far the most commonly administered formats, both of which account for the main DA principle grounded in the importance of continuous assistance offered by the examiner during the test procedure.

The sandwich format

The sandwich format typically consists of three stages: pre-test → mediation (instruction) → post-test. That is, first test-takers are asked to complete pre-test activities; second, they are given instruction (planned in advance or adjusted to test-takers' needs derived from their performance during the initial test), and finally, they move on to a series of post-tests. This DA format requires a so-called "sandwiched" instruction because it usually occurs between pre-test and post-test stages throughout the test administration. Within the sandwich format, instruction may be given in individual or group settings and is intended to promote test-takers' development. The analysis of DA studies shows that this format has been extensively used in order to design pedagogical interventions in DA research (Budoff, 1987), including L2 DA research (Poehner, 2005; Ableeva, 2008).

Layer-cake format

Within the layer-cake format, assessment comprises intervention (or feedback) from the examiner during the test procedure itself. In this DA format, the examinees carry out testing activities that are given item by item. If they cannot solve an item correctly, they are provided with instruction presented in the form of pre-fabricated hints. As Sternberg and Grigorenko (2002:27) explain it, "the successive hints are presented like successive layers of icing on a cake [and] the number of hints varies across examinees, but not the content of them." In other words, the examiner provides the examinees with hint-based instruction and determines how

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many hints an examinee needs to solve the item correctly. The examinees' ability to learn is measured during the process of learning and feedback is given until the examinees solve the problem or give up. Furthermore, Sternberg and Grigorenko (2002) note that within the layer cake format the examiner should give a series of gradually complex tasks and after each task he/she should offer examinees necessary feedback and even additional hints if needed.

Assessment in SCMC

Originally, SCMC was used in the L2 classroom because it provided a non-stressful environment that encouraged students to participate in the target language (Beauvois, 1992; 1993; 1994; Kelm, 1992). Because students and teachers were more concerned with the content of what they said than with the accuracy of their production, Kern (1995) suggested that accuracy was not one of the main goals of SCMC. In addition, given that SCMC seemed an appropriate environment in which students could express their opinions freely, assessment in this medium might have seemed cumbersome because "assigning a letter grade to an assignment that was designed to allow students to openly communicate feelings and opinions is especially difficult" (Kelm, 1992, p. 453). This is probably the reason that, until recently, teachers have typically given students either full credit for participation or no credit at all (Kelm, 1996). However, there is some recent research that examines how to assess students' performance in SCMC (Heather, 2003; Oscoz, 2003).

Heather (2003) examined the validity of making inferences from computer-mediated discourse to oral discourse by comparing 24 third-semester French students' performance on two tests: a computer-mediated communicative test and a group oral exam. For his study, Heather compared students' performance in a series of tasks both in SCMC and small group interaction. He found that although students' scores were not statistically different, their discourse differed in linguistic and interactional features. Even though the results of the study did not support the interchangeability of SCMC assessment for face-to-face assessment, Heather did not rule out the use of computer-mediated communicative testing. Instead of considering SCMC as an alternative to oral assessment, Heather argued for a "better convergence and integration of instruction and assessment in classes that utilize CMC" (p. 230) and suggested that testing using this electronic medium should be understood within the instructional context in which it is used.

Methodology

Participants

The participants, their age ranging between 20 and 35, were selected from among Iranian adult EFL learners at an English language institute in Tehran, Iran. The present study took in sixty intermediate participants. In order to control the participants' proficiency levels, an OPT and a demographic information questionnaire were administered. In this study, two groups of participants were involved, control and experimental groups. The participants were randomly assigned to the control and the experimental groups, that is, thirty participants were randomly assigned to the control group, thirty to the experimental group. Participants in the control group received traditional instruction, but the experimental group received online intervention-mediated instruction via web 2.0 technologies of Talk and Write and Skype.

Dialogs as listening materials

In order to provide listening materials that would correspond to the study requirements, it was decided to collect audio dialogs by English native speakers. L2 research regards dialogs as a valuable genre to be used in listening instruction because they represent "one of the few natural conversations conducted for the benefit of non-participants" (Buck, 2003:167). In this respect, the dialogs allow teachers to provide situations in which learners can pick up conversational rules and learn how to carry out conversational interactions.

The Design of the Study

The present investigation has a pre-test/enrichment program/post-test design. The specific procedure followed in this study is: first, the learners carry out the recall independently (e.g. NDA sessions) and then they repeat it but with mediation (e.g. DA sessions). In effect, during DA and NDA sessions there are two opportunities to assess microgenetic listening development: independent listening performance and mediated listening performance. The quantitative analysis of independent recall of the propositional content of the selected texts and the qualitative analysis of the mediational process through which the students and the mediator negotiate understanding of the relevant texts are carried out. Through this process the mediator is able to formulate fine-grained diagnosis of learner abilities, including most importantly, their problem areas with regard to listening comprehension. On the basis of the diagnosis obtained through mediated interaction, the enrichment session is organized.

Text Comprehension Measurement

To measure comprehension, this study implemented immediate oral text recalls. The participants were asked to recall in English as much as they could of what they were listening

to with a special focus on the main ideas of the text. Then, the researcher identified the relationship between propositions (idea units) of the original text and the texts of participants' recall. In this fashion, propositions from students' immediate oral recalls that were closely related to propositions from the original text were counted and scored against the list of idea units designated independently by the raters before the study. The number of recalled idea units was viewed as evidence of text comprehension.

Oral Recalls Scoring and Analysis

The oral recalls of the learners were analyzed by the researcher for the total number of idea units (IU) accurately produced and subsequently for the number of main IUs, supporting IUs and details recalled. The recalls were scored against the list of IUs and only the information explicitly stated in the aural text was counted.

Data Analysis

To compare participants' performance on the pre-test and post-test a series of paired sample t-tests was run . An independent-samples t-test was also conducted to compare the posttests of the control and experimental groups.

Results

In this section, a descriptive analysis of the data for the hypothesis has been presented; then, the inferential analysis of the data has also been provided using tables and diagrams. The descriptive analysis of this study consists of a discussion of the mean, standard deviation and the standard error of measurement. Similarly, the inferential analysis of the data in this study consists of calculating the paired-sample t value between the pretest and the posttest of each group. An independent-samples t-test was also conducted to compare the posttests of the control and experimental groups.

Descriptive Analysis of the Data

The descriptive analysis of the data for different groups of the study has been summarized below. Table 1 summarizes the descriptive analysis of the data of before-enrichment and after-enrichment scores for the experimental group:

Table 1 Descriptive analysis of the data for the experimental group (Paired Samples Statistics)

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Experimental Group				

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DA Before Enrichment	20.33	30	5.809	1.061
Experimental Group DA After Enrichment	25.53	30	6.257	1.142

As table (1) indicates, the mean for the experimental group before enrichment is 20.33 ($\bar{X}$=20.33) while the mean for after enrichment is 25.53 ($\bar{X}$=25.53). The higher standard deviation of after-enrichment group indicates more variety among the scores from the mean. Finally, the amount of standard error is lower in the before-enrichment group scores.

Table 2 summarizes the descriptive analysis of the data of pre-test and post-test scores for the control group:

Table 2 Descriptive analysis of the data for control group (Paired Samples Statistics)

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Control Group NDA Pre-test	19.50	30	6.479	1.183
Control Group NDA Post-test	20.03	30	6.178	1.128

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As table (2) indicates, the mean of control group for pre-test is 19.50 ($\bar{X}$=19.50) while the mean of control group for the post-test is 20.03 ($\bar{X}$=20.03). The higher standard deviation of the pre-test group indicates more variety among the scores from the mean. Finally, the amount of standard error is lower in the post-test group scores.

Inferential Analysis of the Data

The hypothesis of this study targeted the extent to which Iranian EFL learners' listening ability could enhance as a result of online dynamic assessment through web 2.0 technologies of Talk and Write and Skype. The inferential analysis of the data for this hypothesis has been summarized in the tables below.

Table 3 summarizes the inferential analysis of the data of before-enrichment and after-enrichment scores for the experimental group:

Table 3 Paired-sample t value for experimental group

	Paired Differences					
Pair 1	Mean	Standard	Std. Error	**t**	df	Sig. (2-tailed)

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Experimental Group DA Before Enrichment – DA After Enrichment	Deviation	Mean			
	5.200	2.592	.473	**10.989**	29	.000

As table (3) indicates, the observed t value for the experimental group before and after enrichment is 10.989 (tobs=10.989) which is much higher than the critical t value (tcrit=2.045 with the level of significance of 0.05 and degree of freedom of 29 df =29). This rejected the null hypothesis of the study which meant that the enhancement of Iranian EFL learners' listening ability was to a large degree affected by online dynamic assessment through web 2.0 technologies of Talk and Write and Skype.

Table 4 summarizes the inferential analysis of the data of pre-test and post-test scores for the control group:

Table 4 Paired-sample t value for the control group

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	Paired Differences					
Pair 1	Mean	Standard	Std. Error	**t**	df	Sig. (2-tailed)
Control Group NDA Pre-test-Control Group NDA Post-test		Deviation	Mean			
	.533	1.655	.302	**1.765**	29	.088

As table (4) indicates, the observed t value of the control group for the pre-test and post-test is 1.765 (tobs=1.765) which is lower than the critical t value (tcrit=2.045 with the level of significance of 0.05 and degree of freedom of 29 df =29). This illustrated that participants in the control group did not show improvement. As a result, it can be concluded that participants' listening ability in the experimental group was affected by online dynamic assessment through web 2.0 technologies of Talk and Write and Skype.

Table 5 summarizes the inferential analysis of the data of posttests of the control and experimental groups:

Table 5 Independent samples test for control and experimental groups

	Levene's Test for Equality of Variances		t-test for Equality of Means			
	F	Sig.	t	df	**Sig.(2-tailed)**	Mean	Std. Error

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							Difference	
Difference								
PT	Equal variances assumed	.241	.626	3.426	58	**.001**	5.500	1.605
	Equal variances not Assumed			3.426	57.991	**.001**	5.500	1.605

An independent-samples t-test was conducted to compare the posttests of the control and experimental groups. The sig. value for Levene's test for equality of variances was more than .05 which meant that equal variances were assumed. The value in the sig. (2-tailed) column was .001 which meant there was a significant difference in scores for the control group (M = 20.03, SD = 6.178) and experimental group (M = 25.53, SD = 6.257). As indicated in table (4.5), the t-value between the posttests of the experimental and control groups was also calculated. The observed t was calculated as to be 3.426 (t_{obs}= 3.426) and the degree of freedom was 58 (df= 58). The *t*-observed value, 3.426, at 58 degrees of freedom is higher than the critical value of *t*, that is, 2.000. It can again be concluded that there was a significant difference between the means of the experimental and control groups.

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Discussion

The results considering the experimental group presented a significant difference between the degree of the development of listening ability in this group and the control group. Therefore, DA via web 2.0 technologies of Talk and Write and Skype as a catalyzer to facilitate the development of listening ability in EFL learners could be regarded as beneficial. Accordingly, the effectiveness of such a treatment and the facilitative role it played in the development of L2 listening ability could be theoretically inspired by sociocultural theory proposed by Vygotsky (1978, 1986).

As Lantolf (2007) suggests SCT understands humans as "fundamentally socially organized entities" who learn to become autonomous by being social. For this reason the SCT paradigm "rejects the encapsulated and autonomous individual privileged in information processing and innatist theories" (Lantolf, 2007: 32) that do not take account of the fundamental role the sociocultural environment plays in human development. Within the SCT framework, it is argued that the development of humans "is mediated by others, whether they are immediately present as in the case of parents guiding children or teachers guiding students, or displaced in time and space, as when we read texts produced by others or participate in

activities such as work, organized in specific ways by a culture" (Lantolf, 2007: 32). Dynamic Assessment which is a process-oriented, interactive approach to assessment is grounded on the Vygotskyan principles of mediation and assistance in the zone of proximal development. DA provides learners with assistance every time needed during the performance of the assessment task through collaborative dialogue. At the heart of Vygotskyan and sociocultural approaches to language learning and DA are the concepts of mediation and social learning (Lantolf, 2000; Lantolf & Thorne, 2006). These key components of DA have taken on special relevance with the arrival of social networks and online communities through web 2.0 technologies that embrace an amplified emphasis on user generated content, data and content sharing and collaborative effort.

As discussed by Furstenberg, Levet, English, & Maillet, (2001) moves in pedagogy from an individual orientation to a collaborative one as well as from a product-oriented medium to a process-oriented one gives rise to the imperative for new evaluation tools and a new research agenda that are compatible with the goals and context of instruction. DA, focusing on the process rather than on the product, presents itself as an alternative approach to assess students' performance in SCMC. Donato (1994) and Ohta (2000) have shown that the ZPD happens not only in collaboration with an expert, but also in peer interactions. SCMC also generates an environment in which learners become leaders for one another in a process of scaffolding in the ZPD (Beauvois, 1997). The collaborative nature of SCMC reduces some of the possible problems with the use of DA in the classroom, such as time necessary to conduct the assessment (Antón, 2003). It is also possible to revisit students' transcripts to afford a more truthful diagnosis of learners' potential level of development.

One distinctive feature of online dynamic assessment is its personalized image of learning. Whereas non-dynamic assessment attempts to compare the performance of each learner with other learners, online dynamic assessment compares the present performance of each individual with his/her preceding performance in SCMC through mediated dialogue and makes inferences about their development and progress. So online DA wishes to move the learner further and enhance the performance of each individual a stage above his/her current level of ability. Online dynamic assessment with its special view toward teaching and testing can be seen as a practical path taken by all the learners, and each person takes the advantage of the procedure and moves forward as much as the ZPD permits. It can be resolved that if correct mediation appropriate to the person's ZPD is provided via web 2.0 technologies of Talk and

Write and Skype no one remains unaffected and each learner's listening ability improves, as much as the ZPD permits, through online dynamic assessment.

Conclusion

This study has explored the possibility of applying DA to SCMC. Given the process-oriented nature of the electronic medium (Furstenberg et al. 2001), DA, which focuses on process rather than on the product, seems to be an appropriate means to assess students' performance in SCMC. The present study contributes to other SCT- and DA-based studies that have researched the effects of mediation on L2 development. In SCT, development is viewed not just as improved performance (i.e., changes in product) but it is also regarded as the changes in the process through which learner performance improves over time. Additionally, the developmental process is explored and documented in the changes in mediation and learners' receptivity to mediation which should be constantly calibrated to the learner's ZPD. To be precise, the aim of the present research was to address the aforementioned concerns articulated in L2 listening research and to add to the body of knowledge on L2 listening processes by implementing an online DA-based approach to listening assessment. The article also illustrates how listening comprehension can be diagnosed and further development promoted through online DA via Web 2.0 technologies of Talk and Write and Skype within the ZPD.

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According to the results of the analysis shown in Tables 4.3, 4.4, and 4.5, the hypothesis of the study is rejected. In other words, online DA via web 2.0 technologies of Talk and Write and Skype led to the development of listening comprehension in Iranian EFL learners at intermediate level. This is, to a great extent, in line with Vygotsky's ZPD and SCT. Furthermore, there seems to be some justifications for this finding.

As Furstenberg et al. (2001) claim, assessment in SCMC seems a difficult task to undertake because students' work is situated within a new medium—network-based communication, within a new learning environment—collaborative rather than individual, and it is process- rather than product-oriented. The results of this study indicate that the pedagogical shifts (from individual to collaborative and from product to process) demand new evaluation tools and new research agendas that are both congruent to the goals and the context. Dynamic assessment (DA), which focuses on the learning process rather than on the product, may serve as a useful framework for assessing students' performance in SCMC. Rather than focus on what learners know and can do at a given moment in time as measured by their performance on a set of tasks, DA focuses on learners' potential development.

The results of the analysis of both mediated and independent recalls presented here provide deeper insight into tendencies underlying the processes involved in listening comprehension and into the diagnosis of developmental paths followed by learners. A number of factors influencing listening processes were ascertained through online DA via Web 2.0 technologies of Talk and Write and Skype, which appears to be able to generate more accurate and detailed information about the learners' listening ability. The results provide empirical evidence of how poorly developed bottom-up and top-down knowledge, especially of L2 phonology, did not allow the learners to interact meaningfully with authentic spoken texts. The results thus demonstrate that L2 phonology has significant influence on listening comprehension, at least for learners at the intermediate level. Additionally, the results show that not only lexis but also grammar contribute substantially to L2 listening comprehension ability. Unknown cultural references too were found to be a vital component influencing text misinterpretation.

From the perspective of SCT, the results can be interpreted as follows. While the learners cannot yet fully understand an authentic text independently and, therefore, still require mediation, their responsiveness to assistance demonstrates that their capacity to comprehend such texts is in the process of ripening. In other words, it is argued here that the learners are ready to respond effectively to appropriate instruction, but the instruction must take into account their developmental differences. Thus, even though the learners were enrolled in the same level course (i.e., intermediate), they were clearly not at the same level of ability with regard to comprehending authentic spoken English. This crucial fact, along with knowledge of the source of the problems unique to each learner was only brought to light as a result of online DA-based mediated interactions.

The SCT perspective adapted here allows us to look at L2 listening microgenetic development and its diagnositics from a new perspective, rarely attempted to date in L2 research. The emphasis here is on two crucial SCT concepts, i.e. mediation (or mediational strategies) and the ZPD as well as their role in understanding the language developmental process. Using microgenetic analysis and the methodology of online DA via Web 2.0 technologies of Talk and Write and Skype, it was ascertained that the learners' ability to understand authentic spoken English independently was quite limited. However, when engaged in mediational dialogue in the Web, the learners showed their responsiveness to assistance, offered explicitly or implicitly, and were able to achieve a better understanding of texts. In the context of SCT, this means that the learners were engaged in an activity, i.e. listening to L2 authentic discourse, which was within their ZPDs.

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