



Digital Literacy in an EFL Classroom: Does Dynamic Assessment Benefit from the Literacy?

Mohammad Reza Raeisi¹, Davood Mashhadi Heidar^{*1}, Mohammadreza Khodareza¹

¹Department of English Language Teaching, Tonekabon Branch, Islamic Azad University, Tonekabon, Iran

Email: Mohammadreza.raeisi@yahoo.com

Email: mkhodareza@yahoo.com

*Corresponding Author's E-mail: davoodm_tarbiatmodares@yahoo.com

Received: 17-06-2023, Accepted: 20-08-2023

ABSTRACT

The study aimed to investigate the application of Digital Literacy to Lexical and grammatical accuracy of Iranian EFL learners and determine whether dynamic assessors could benefit from the literacy. Accordingly, the purpose of the present study was to investigate how young students are developing computer and information literacy (CIL) to support their capacity to participate in the digital age. Further, this study explored the mediating role of teachers' digital literacy between educational strategy use and dynamic assessment. The study participants, 230 young adult-male and female EFL teachers aged between 22 to 42 years old at different language institutes in several cities of Mazandaran province, Iran, were selected based on a snowball sampling method and were delivered two questionnaires. Following a multiple case study design to address the characteristics and significant cases of strategy use for teachers. Therefore, the paper used qualitative methods to gather data. The significant advantage of multiple-case research lies in the cross-case analysis and changes the focus from realizing a single case to the differences and similarities between views. Finally, the results revealed that the social practices of literacy change due to the use of digital technologies. The findings provide further attitude into understanding how to probe the purposes where they have been formed and used in conceptualizing digital literacy.

KEYWORDS: Classroom Interaction; Digital Literacy; Dynamic Assessment; Information Literacy

INTRODUCTION

Recent years have seen increasing research on digital literacy (DL) as an essential aspect of academic teaching and learning (Khodabakhsh, Abbasian, & Rashtchi, 2019; Lantolf & Poehner, 2004; Mirra, Morrell & Filipiak, 2018; Poehner & Inbar-Lourie, 2020; Stiggins & Chappius, 2005). It is evident that the assessment of DL plays a significant role in teaching and learning strategy (Hidri, 2015; Scarino, 2013). Dynamic Assessment (DA) of DL is considered the inherent multimodality of contemporary forms of meaning representation and plays a



central role in second language study and challenges of Coronavirus (Mahyoob, 2020; Tajeddin, Khatib & Mahdavi, 2022). Part of the reason for this recognition lies in demographic information and that is to say that experience can affect the literacy of teachers. To this end, this research paper reviewed the key factors identified concerning DL and the extent to which age, gender, and access to computers and internet-enabled mobile devices impact the literacy of Iranian English teachers (Khodabakhsh et al. 2019)

While there is plenty of research done in the field of DL and DA (Astiandani & Anam, 2021; Hashemian & Fadaei, 2013; Norton, 2013), none of these studies investigated DL training of lexical accuracy. However, there are relatively few studies about DL and DA (Inbar-Lourie & Levi, 2020; Lantolf & Poehner, 2004; Petersen et al., 2020). Additionally, taxonomies have developed to elucidate the disparities in analyzing current paradigms of digital learning between the training and the instructional design needs of academic educators. This study aligns with the recommendations put forth by Dardanou and Kofoed (2019) assert that a digitalized skill is advantageous during the COVID-19 pandemic.

The purpose of this study was to solve the problem of the DL skills of institute students at pre-intermediate level, to access to a digital device (BigBlueButton Management system) and designing an intervention to address the problem. The problem was the need to improve students' DL skills on EFL learners in north Mazandaran through: a digital iChecker assessment (two parts: Test-Audio). To understand the study, this paper will explain significant concepts, the purpose, and significance of the study; the fundamental theories in this study, such as sociocultural theory (SCT) and zone of proximal development (ZPD) described; the main contexts in the study including DL, DA and aspects of DA and its relationship with Lexical and grammatical accuracy skill explained.

As the world increasingly digitalized, the high demand for digital devices has generated the need for teaching and learning in various contexts. To that end, DA has introduced into the field of Second Language Acquisition (SLA) as a tool for effective EFL learning with an emphasis on the interaction in EFL learners' development (Astiandani & Anam, 2021; Inbar-Lourie & Levi, 2020; Lantolf & Poehner, 2004). This paper introduces DA in the context of an EFL learning setting called DL to determine first the effectiveness of DL in the Iranian English Schedule during two-years (Corona pandemic) and its relationship with DA with the mediation of teachers to improve lexical accuracy and grammatical skill by interaction.

This study was designed to investigate the classroom dynamic assessment and the teachers' practices in EFL classrooms. The study benefits other classroom assessment methods and tools to recognize the learners' strengths and weaknesses. Having considered these features of DA, this study aimed to investigate the teachers' perception and applicability of Vygotsky's sociocultural theory within a DA framework and examines the potentiality of DA in helping language practitioners not only in diagnosing learners' problems in the theoretical framework but also in helping them to overcome their problems and evaluating their educational issues. The pedagogical strategy used to solve the problem that the Corona Pandemic has created concern. Therefore, the current study was an attempt to consider the following questions:

1. To what extent can an Iranian EFL classroom benefit from teachers' digital literacy in English institutes?



2. How do EFL learners benefit from interaction between mediator and primary interactants through literacy?

LITERATURE REVIEW

The section gives an overview of how Iranian teachers teach English and reviews studies that have conducted on classroom assessment. This part describes relationships between interactions and practice of digital classroom literacy. Davies (2008) believes that DL has three essential elements: skills, knowledge, and principles. Fulcher (2012) defines DL based on a study designed to explore the assessment training needs of language teachers. For many years, different researchers have investigated learners' English ideas and teachers' DL and application of DA as well as their development, an overview of COVID-19's impact on English language assessment (Angelo & Cross 1993; Davis 1993; Ockey, 2021; Safdari & Fathi, 2020; Stobart, 2008). In a study conducted by Roskos and Brueck (2016), the teachers can take advantage of an exciting program resource that can enhance literacy instruction and argued that E-books are involving and motivating for students to study so that they can be stored on a single device and made accessible at school, and home. In another study conducted by Coombe, Vafadar and Mohebbi (2020), notions of the primary purposes of schooling changed from a stage to the transmitted knowledge to a more complex training of independent language assessment literacy. This change has led to increasing the distinction in today's developing society, having its ever-everlasting requirement for human beings with strong communication skills and a tendency toward problem-solving and helping each other.

Research has also revealed that most students perceive English as a complex subject which has no meaning in real life (Countryman, 1992; Gupta, Seetharaman & Maddulety, 2020). Another recommendation by Beckingham and Belshaw (2012) was to track the definitions' origins, purposes, and contexts, where they have been formed and used in conceptualizing digital literacy. In other studies, Gillan and Barton (2010) also studied:

"The concept of DL is fascinating both in its definition and its application. The term captures an arena of rapidly developing practices as humans interact with technologies in new ways and for innovative purposes" (P 4).

Apart from the Vygotskian perspective, DA considers the effects of peers on the functioning of individuals (Poehner, 2008; Shabani, 2010). Related studies have shown that including self-assessment in the evaluation plan for evaluation can have several general benefits. It can expand responsibility for assessing learning beyond the teacher to include the learners themselves (Birjandi & Mosallanejad, 2011). In other studies, Leander and Rowe (2006) found that in many literacy classrooms, students engage in public performances using various texts, movements of their bodies, and verbal interactions. Attempts to develop theories conducted describe how students learn English. A careful assessment of the classroom refers to a formative assessment to enhance both DL in higher education and a case study of student engagement with e-tutorials using blended learning (Cope & Kalantzis, 2013; McGuinness & Fulton, 2019). According to Vygotsky (1998), students learn in their zone of proximal development, what Vygotsky also refers to as ZPD.



The teaching materials and classroom practices on language skills in general and other skills, in particular expected to be affected by the suggested educational framework. Therefore, the appearance of an innovative educational framework such as DA requires language practitioners to reexamine the potentiality and practicality of such a framework in their educational contexts. Although DA widely researched in other fields such as mathematics, physics, psychology, medicine, etc. Several language educators have recently begun to examine its pedagogical applications (Lantolf & Poehner, 2004; Lazar, Panisoara & Panisoara, 2020). Poehner, 2005). Also, Shabani (2018) has studied "research on L2 writing is replete with recurring calls for incorporating a process-oriented approach to the assessment of writing " (p.130).

Related studies have shown that including assessment in the evaluation plan for evaluation can have several general benefits. For example, the technology and pedagogy of using digital classroom literacy, such as podcasting and iPods, can improve four skills in the case of language learning. In addition to that, the following websites include podcasts. The recent decades have seen a great deal of research on classroom assessment as an essential factor of effective teaching and learning (Shohamy, Inbar-Lourie & Poehner, 2008; Voda et al., 2022). Assessment is "a term used for the first time by Stiggins (1991). He notes that educators with assessment literacy know what they consider, why they assess, how to assess and are familiar with the possible negative consequences of poor, inaccurate assessment (Stiggins, 1998). One aspect of becoming an effective teacher is to develop assessment literacy, create assessments to transform the learning goals in assessment activities accurately and reflect student understanding or achievement (Mertler & Campbell, 2005; Stiggins, 2002). Familiarity with a variety of assessment tools helps teachers to select relevant and powerful instruments (Gottheiner & Siegel, 2012). EFL teachers integrated assessment with instruction to utilize appropriate forms of teaching (Llopis Nebot, Esteve-Mon & Segura, 2021).

Different researchers investigated teachers' perceptions of assessment in different ways (Levi & Inbar-Lourie, 2020). More critical also is the fact that perceptions affect behavior (Atweh, Bleicker & Cooper, 1998; Calderhead, 1996; Cillessen & Lafontana, 2002). Following DL (Webinar BigBlueButton management system), the mediation in this study delivered to control EFL learners' lexical accuracy skills and strengthen the deficiency of DL (formative and summative assessment) intervention during DA sessions (Cohen & Cowen, 2008). While this paper was based on Vygotsky's Zone of Proximal Development (ZPD) rooted in the Sociocultural Theory (SCT) (Vygotsky, 1978) following a pretest, teach, and re-test model and locates EFL learners' ability to learn new skills with pre-scripted prompts through mediation (Vygotsky, 1978; Tajeddin, Khatib & Mahdavi, 2022), it differentiated from previous studies in terms of several different aspects in the present study; first, the study examined the efficacy of DA in the context where mutual functions of assessment happen through interaction, and in DL development through different digital devices (Mobile, computers and other digital devices); second, the present study focused on the relationship between DL to improve grammatical skill of Iranian EFL learners; third the present study reveals learners' interaction of DA and their DL lexical skill.

This study incorporates a more suitable form of assessment compared to Anderson's skills model (1984). Additionally, this study examines the validity of this factor with the current research literature on the performance of EFL learners in a digital environment. The research



utilizes DA as a means of mediation in reading comprehension and contributes to grammatical accuracy. Furthermore, this study contributes to the existing literature by demonstrating how new digital networks have transformed the internal dynamics of conventional lexical accuracy and isolated more traditional teaching methods. In this context, three categories of information necessary for knowledge creation in real-world contexts identified: Semantic-association information, syntactic information, and symbol-sound information for lexical accuracy in reading comprehension skills (Pearson, 1976). Scholars have extensively explored digital literacies through diverse sources to encode and retrieve texts to negotiate meanings in socially recognizable manners (Andrade et al., 2019; Makhachashvili & Semenist, 2021; Martin, 2005). This investigation aims to examine the use of educational strategy on grammatical and lexical accuracy ability in an EFL context through DA.

METHODOLOGY PARTICIPANTS

Two hundred and thirty English teachers (among 323 teachers) drew from different institutes and participated in this study through telegram and some by filling out questionnaires and interviews. The teachers drawn from other institutes in which the researcher would access these centers during a two-year-study. Each teacher represented a textbook the institute. The institute course, there were three sections: The Kid section (standards 1 and 2), the junior section (standards 3 and 4) and the senior section (standards 5 to 8). Participants were teachers, currently teaching English at public schools and private institutes. Teachers had gone through a four-year conventional teacher education program to become teachers, while the others had gone through the Iranian Integrated In-service Teacher Education Program (II-ITEP). Almost more teachers were holders of the Iranian School Certificate of Education (ISCE), including public universities (teacher training centers), while the rest were holders of B. A, M. A, and Ph.D. Certificate of Education graduated from Islamic Azad and Public University (B. M. CE). Their teaching experiences were ranged from 3 to 16 years. Institute teachers in Iran are mainly in three categories (grades 1, 2 and 3): trained teachers that completed six years of secondary education M.A and passed placement examinations at that level (graded as T2 teachers), those that ended four years of secondary education B.A and passed assessment at that level (graded as T3) and those who passed the university examination at any of the two groups but have no teaching certificate (graded as untrained teachers). Those who were teaching without a teaching certificate were not sampled for this study (grade 1).

Table 1
Cumulative frequency of Education level of Participants

	Frequency	Percent	Valid Percent	Cumulative Percent
B.A. or B.S.	45	19.6	19.6	19.6
M.A. or M.S.	107	46.5	46.5	66.1
Specialist	47	20.4	20.4	86.5
Ed.D.	15	6.5	6.5	93.0
Ph.D.	16	7.0	7.0	100.0
Total	230	100.0	100.0	



Table 2 above shows the teachers' gender grade level in the academic qualifications, teaching experience, and the initial teacher education programs. The teachers were selected based on gender, the classes they were teaching, and teaching experiences. The initial interviews and questionnaires helped the researchers to determine the teachers' digital literacy in a dynamic assessment of learners in classroom practice.

INSTRUMENTS

This study used a questionnaire, lesson observation protocol, semi-structured interview, and document analysis as the primary tools for data collection. The instruments mapped out patterns between perceptions of self-assessment and classroom practice. Document analysis used to triangulate the information collected through observation. In addition, document analysis provided first-hand information on the kind of written feedback given to students and the nature of the activities they do. The instruments adapted to make them relevant to the purpose of the study. The combination of data collection strategies, and triangulation, was conducted in the analysis (Creswell, 2007). Triangulation utilized evidence from different sources to shed light on a particular theme or issue regarding the study. Triangulation in qualitative research was essential to validity issues such as checking the truthfulness of the information collected in the present study, which was going to follow respectively. The documents were students' notebooks, teachers' lesson plans, and schemes of work and records of employment. Figure 1 shows the checklist:

Questionnaire on Teachers' Digital Classroom Literacy and Dynamic Assessment

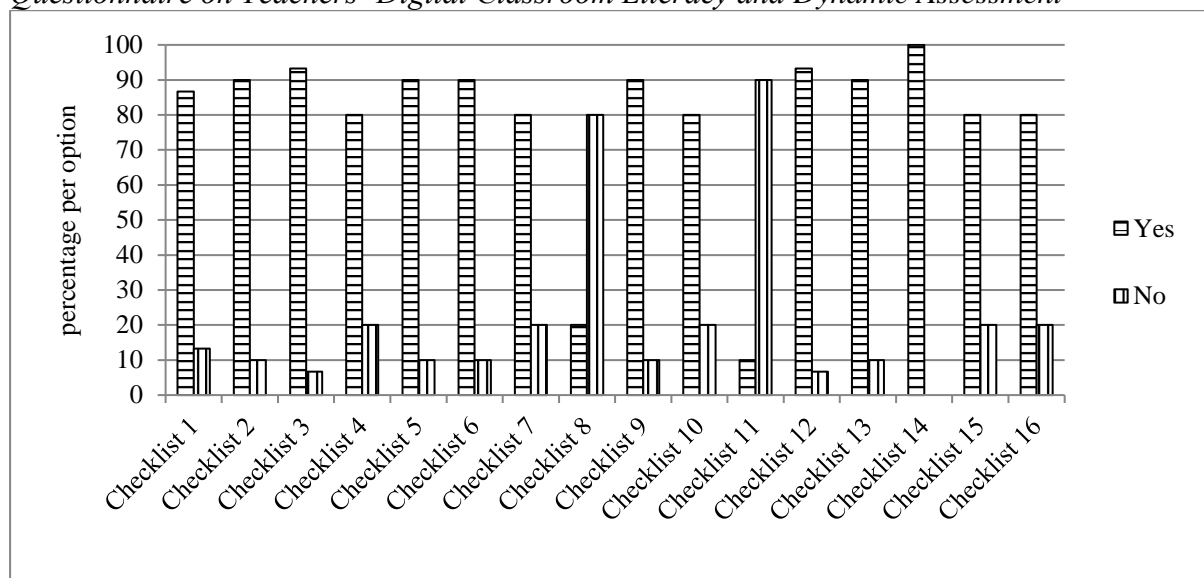


Figure 1. Digital Classroom Literacy Checklist

This questionnaire utilized to determine the teachers' digital literacy in Iranian institutes before lesson observations. Questionnaire had sixteen closed items (Appendix A). The first four questions sought to establish teaching experience, how long the teacher had been teaching English, the grade level at which the teacher was teaching English, and how long the teacher had been teaching English at that grade. The rest of the items were in two major categories,



namely, digital literacy of classroom assessment and classroom assessment practices: possibilities facilities and applicability of dynamic assessment.

PROCEDURE

The initial data collection process included obtaining permission from the Ministry of Education through the District offices and Educational Division. The pilot testing of the observation and interview protocols followed authorization granted. Teachers with similar characteristics participated in the actual study. Some questions on the observation and interview protocols were modified after teacher feedback. Those who participated in the pilot phase were not allowed to participate in the data collection phase. One local and another institute from Tehran were sampled to participate in this study, and data collected through observation and interviews. Initially, all the teachers from the academic institutes and teachers from standard grades one to seven from the institutes responded to a questionnaire, and their responses were one of the factors that considered for selecting of the 230 teachers. A meeting called to brief all the teachers on the purpose of the study and to build trust. Headteachers of the selected schools attended the briefing. After the briefing, the teachers were asked to make their final statements whether they would participate in the study. All teachers expressed their interest in participating in the study. No teacher forced to participate in the study.

RESULTS

The exploratory lesson prepared jointly between the teachers and the researchers. The primary purpose of this lesson was to try out most of the assertions that the classroom teachers made during post-lesson observations, and these were related to the students' or teachers' behavior. For instance, all the teachers said the pupils were not asking questions in class because they were shy and that students could not be given tasks without giving them a related example. The preparation for the exploratory lesson started with the teacher explaining to them the procedures they followed when preparing a lesson plan, after a discussion followed on how a study designed to address their concerns. The concerns were the basis for developing objectives for the lesson. The class teacher used their schemes of work to developed a topic for the study, and from the topic activities developed jointly. In this way, study's content was consistent with the teachers' plans; only the methods for the delivery of the study changed.

This questionnaire aimed at determining the teachers' classroom literacy and dynamic assessment before lesson observations. Questionnaire had sixteen closed items (Appendix A). The first four questions sought to establish teaching experience, how long the teacher had been teaching English, the grade level at which the teacher was teaching English, and how long the teacher had been teaching at that grade. The rest of the items were in two major categories, namely, perception of classroom assessment and classroom practices. The initial data collection process included obtaining permission from the Ministry of Education through the District Offices and Educational Division. The pilot testing of the observation and interview protocols followed by consent granted. Teachers with similar characteristics to those who participated in the study were sampled for the pilot phase of the study. Some questions on the observation and interview protocols modified after teacher feedback. Those who participated in the pilot phase were not allowed to participate in the data collection phase.

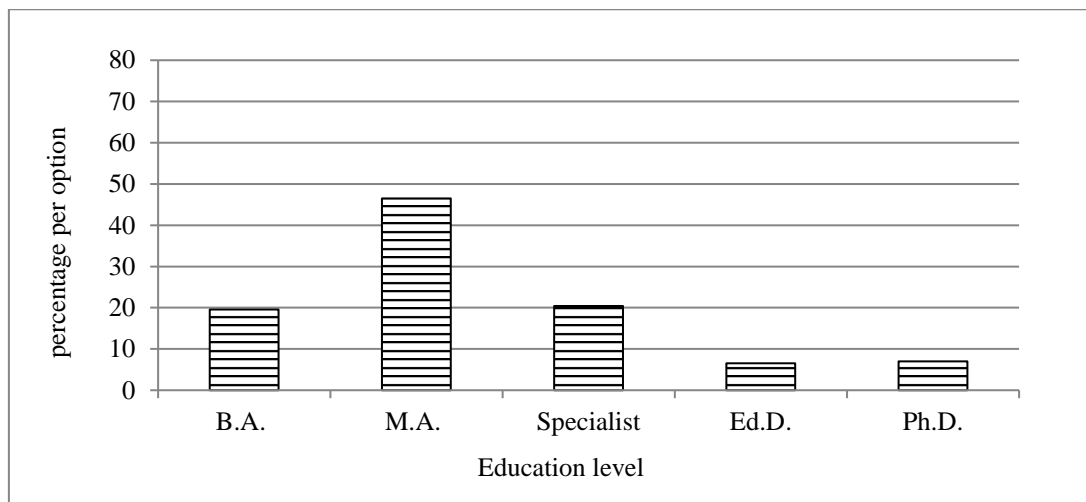


Figure 2. Educational level of teachers

Before the lesson observation started, a teacher had indicated that he uses classroom assessment to inform teaching and learning. The researcher was very keen to learn how the teacher uses classroom assessment to inform teaching and learning. Part of the discussion (interview) went as follows:

R: It was interesting to observe you teach. How did your lesson go?

T: My lesson went on well. Today's class was a continuation of the last session. some of them had forgotten the examples I gave them last week.

R: I noticed that most of your students could not add a quarter to a quarter correctly. What could be the reason?

R: Most of these students are lazy and playful. They do not study at home.

T: Were problems 2 and 3 related to the examples you gave yesterday?

R: Yes, they are. These students already know how to involve task activities. It is not necessary to show them how to do it again.

Why? Because it gives me enough feedback and guides me to teach and I can realize weak points of my teaching.

- This section gives an overall picture of the findings of this study by bringing together the significant results from the individual teachers. The area begins by presenting the teachers' literacy of classroom assessment based on the questionnaire, which they completed at the beginning of the study, followed by the type of feedback they provided to students, assessment methods and tools used by the teachers, classroom assessment practices, and lastly the teachers' subject knowledge. Based on the report *the results of the interviews* held under paragraph 2, the Management Board shall adopt a reasoned opinion:
- *The results of interviews* with every member of teachers.
- Based on these *interviews* and tests, the pre-selection draws up a list of the most suitable candidates.
- Researcher sees, based on *the results of interviews* - it's easy to confirm the significant literacy to teach



- Finally, Eurostat is a tool in the coming months. The *results of the* first initiated classroom use it *during Corona Virus* and include data on the events of many candidates (teachers) to teach.

In this study, two hundred and thirty teachers out of three hundred and twenty-three (snowball random selecting) perceived classroom assessments as tests that those teachers gave at the end of a topic or the end of a term. The research may affect when and how a teacher would assess their students. And if the tests administered at the end of a topic or term, the principal purpose would be to check the mastery of the subject matter and not necessarily to help students to learn. It is, of course, essential to check whether students have achieved the intended objectives, but it would be too late to go back if the goals fulfilled. One teacher perceived classroom assessment as a tool for promoting students from one-grade level to the next. The sample of the checklist is presented below:

Table 2
Digital Classroom Literacy Checklist

	YES	NO
1. Classroom has labels with words and pictures on all supplies, materials, learning centers and objects	86.7	13.3
2. Classroom is decorated with pictures, illustrations, students work, and printed	90	10
3. Students have access to their individualized schedule that has been adapted to meet their needs (pictures, words, objects, photographs)	93.3	6.7
4. Classroom has a posted master calendar of daily events	80	20

Chester and Quilter (1998) strongly recommended in-service training helping teachers on the value of assessment methods. Students have immediate access to various adapted materials (page fluffers, notebooks, and page protectors, book iChecker, book holders, large print books, and communication displays). Students have immediate access to progressive technology to provide access to literacy (object books, software, audio texts, hardware, and communication devices). The classroom has appropriate resource books for daily activities (poetry, art, drama, hand rhymes, music, science, cooking). The quality and utility of monitoring, evaluation and research in the paper and program relies on the ability to collect and analyze qualitative data. This part targets monitoring and evaluation specialists, it also frames the research agenda and builds on existing different data collection methods for the project work. Specifically, the researchers discussed identifying research questions and selecting appropriate methodologies, understanding the difference between quantitative and qualitative data, and associated benefits and limitations. Researchers also give an overview of standard methods and data analysis techniques for qualitative research and discuss the interpretation of findings using multiple data sources. The scope of this module is limited to concepts that enable learners to gain a broad understanding of the subject area. The level at which every teacher teaches is shown below:

Table 3
Level at which every teacher teaches

Level	Frequency	Percent	Valid Percent	Cumulative Percent
elementary – primary (K –grade 3)	15	6.5	6.5	6.5
elementary – intermediate (grades 4-6)	70	30.4	30.4	37.0
elementary (K-6)	31	13.5	13.5	50.4

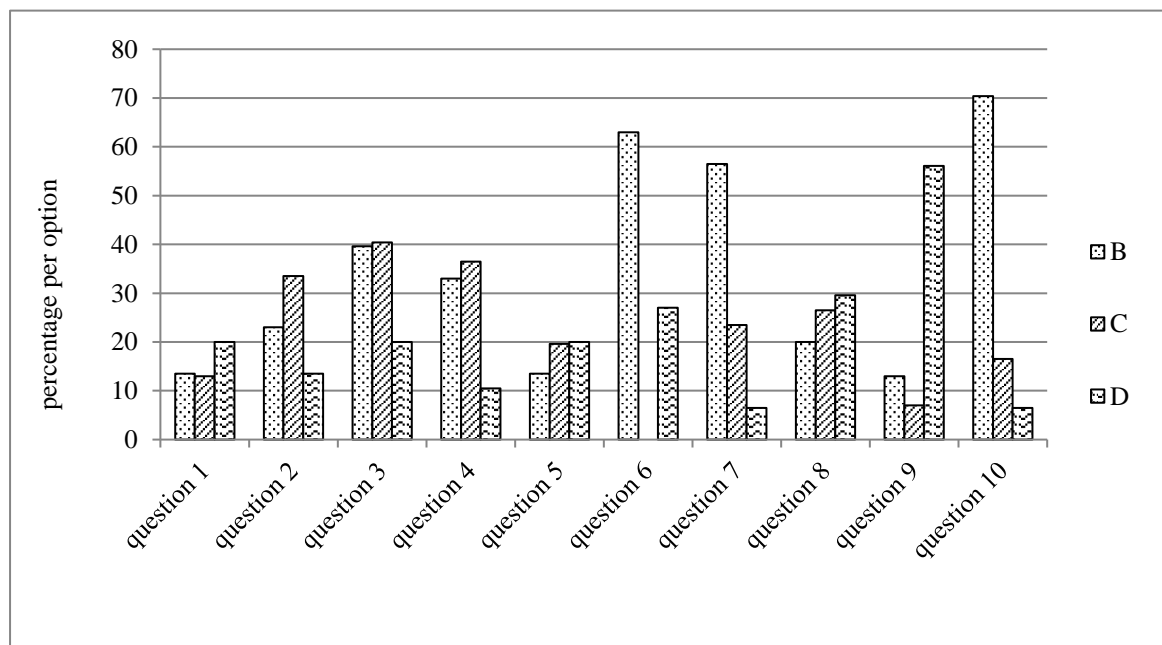


middle (grades 6-8)	39	17.0	17.0	67.4
high (grades 9-12)	45	19.6	19.6	87.0
secondary (grades 6-12)	15	6.5	6.5	93.5
K-12	0	0	0	93.5
Other	15	6.5	6.5	100.0
Total	230	100.0	100.0	

However, the researcher also includes links to valuable resources should learners wish to increase their knowledge on a particular topic. To answer the research question posed earlier in this study, systematic research for the entire data corpus conducted, and categories created. As maintained by Burns and Richards (2009), the interactional basis of interviews shows necessary evidence for approving individuals' perspectives for the data analysis process, and also, looking at significant beliefs and values calls for more changes for in-depth exploration of its nuances. A semi-structured interview used as the method of collecting data. Besides, interviewees' anonymity observed by numbering files and transcripts. Preparing interview conditions to be face to face and in an appropriate atmosphere catered for eliminating and disturbing factors that might prevent interviewees from comfortably expressing their beliefs followed through their levels.

LESSON PROTOCOL OBSERVATION

The purpose of the observation protocol was to guide or make the observation more focused. The classroom observation protocol looked at lesson design, and lesson presentation, including assessment elements.





After writing and documenting the digital literacy of teachers with a framework of dynamic assessment, the researchers determined to show some clear outcomes from this chapter based on the data provided for them from the observed teachers and students' practices in the classroom. Formative and summative assessments used to analyze the capabilities of learners and teachers' digital knowledge in this section. Each section on the dynamic assessment covered the teachers' participation and their classroom activities during their teaching that led them to more capable teachers within the English language institutes. Researchers were able to critically evaluate the digital classroom literacy used in terms of different strategies to mention and educate their learners in the classroom, especially software (iChecker) assessment through online, and CD ROM given separately to learners and benefit Iranian learners online or without or with written exam. The researchers concluded that many of the DA and capacities of learners created a more comprehensive map of what a teacher realized while teaching through a blended software device. In the world of education, technology and digital literacy can improve learners' learning process. Also, teachers can use different technology to create a new approach to education. In the digital world, in which iPods, smartphones, computers, and other devices are vital tools to be used by institute learners with a wide range of exciting latest digital material, including new documentaries, the new edition of American English File (1) provides more choice. Students can learn in the classroom or on the move with online practice, iChecker, the pronunciation application, and more.

Table3

The definition of assessment by teachers in the classroom practices:

Option	Frequency	Percent	Valid Percent	Cumulative Percent
1. A process of administering a test to students in order to assign grades and report to parents and official respondents	84	36.7	36.7	36.7
2. A process helps teachers to promote students from one class to another	39	16.7	16.7	53.3
3. All tests a teacher gives at the end of at a term or class time to a monthly report	23	10.0	10.0	63.3
4. An instrument that a teacher utilizes so as to involve in teaching and learning	84	36.7	36.7	100.0
Total	230	100.0	100.0	

However, this also revealed that this was only a starting point and that many changes made for teachers in a digital classroom in an institute to create a technological environment for each learner. Researchers developed conclusions about research questions, how can digital literacy improve learners' learning in English institutes in Iran through DA based on the capabilities and possibilities presented to them? The teachers summarized the key findings of his action research, focusing on how the role of digital technology in combination with dynamic assessment helped or didn't affect the outcomes suggested by the literature review. Researchers discussed the implications of qualitative research for the selective teachers, learners, and their way of teaching. Next, they addressed the limitations of the study.

DISCUSSION

The present study intended to examine the perspectives of EFL non-native English teachers towards DA of DL in the context of Iranian English institutes. In addition, it was within the



scope of this study to see if the DL could influence non-native English teachers' perspectives. To achieve such goals, the researchers selected 230 non-native English teachers from EFL contexts the principle of a mix of the present sampling and snowball sampling until we reached a desired sample. They filled out Classroom Assessment Literacy Inventory developed by Mertler and Campbell (2005).

The present research explored DL and the DA to improve Iranian male-female EFL learners' grammatical and lexical accuracy skills through DA. In this regard, a range of teachers (two hundred and thirty) formed the study sample. Findings displayed EFL teachers who said the treatment to improve DL of their students based on the techniques of grammatical accuracy skill. Results of qualitative responses indicated that teachers' literacy of both male and female were not highly and significantly improved as the results of using integrated DA and the DL language educational strategy. Further, the results of the observation protocol revealed there was not any meaningful difference between male and female teachers.

The outcomes of this research support the results of several studies which found that the combination of technology and educational strategies has a more significant effect than traditional methods on EFL teachers at different levels (Astiandani & Anam, 2021; Firoozi et al., 2019; Inbar-Louri & Levi, 2020; McGuinness & Fulton, 2019; Petersen et al., 2020). This study also investigated an approach for examining form and function issues that arise from DA to help in the final assessment of EFL learners' grammatical accuracy skills. Results of the first research question, case study design revealed almost a relationship between variables based on teachers' perceptions. Thus, the first question was raised to see "To what extent can an Iranian EFL classroom benefit from teacher's digital literacy in English institutes?". In this regard, educational strategies are effective due to a global movement initiated well during two years of the CORONA virus

To solve the problem, the second question was "How do EFL learners benefit from interaction between mediators and primary interactants through literacy?". Based on the results obtained, the groups did not differ with gender in institutes. Garret's mental model takes into account conceptual structure and inferential processes and relates functional-level representation to positional-level representation by assigning frame elements to terminal strings. Results also showed that the selected groups outperformed stage one (pretest) in several steps. The most apparent issue, the relevance of a selected group's DA, was examining the priority of function on forms used during the sample, and meaning centrality to take essential instructions into a cohesive principle in a quantitative study.

The findings, in general, confirm results of (Brooks and Brooks, 1999), whose research into classroom assessment the teachers use to assess students' learning; in fact, they do not answer all questions a teacher would ask about their students. A teacher may be interested in finding out learners' progress in a particular lesson and what knowledge or skills they need to continue their process of teaching. In particular, the results would not provide such information because tests usually given at specified time intervals. In addition, it is possible to assess students daily. Tests help the teachers to check what students have achieved. Thus, can an Iranian EFL classroom can benefit from teacher's digital literacy in English institutes, and EFL learners can also benefit from interaction between mediators and primary interactants through the literacy



CONCLUSION

Based on the results, the present study intended to explore whether integrating DL and DA lead to the improvement of EFL learners' reading comprehension skill within a blended learning context. Thus, the first question w raised to see "To what extent can an Iranian EFL classroom benefit from teacher's digital literacy in English institutes?" In this regard, educational strategies are effective due to a global movement initiated well during two years of the CORONA virus. Educational strategy use has been slow to react; however, educational strategy use has acknowledged the need for a digital reading comprehension context for learners (Mehri Kamrood et al., 2021). Crucial finding, along with additional results of the study, indicates the use of digital integrative literacy within a blended learning context. The key finding that emerged after the study was as follows: Potential levels of mediation and engagement for reading comprehension skills in a learning context.

Moreover, the second question raised is "How do EFL learners benefit from interaction between mediators and primary interactants through literacy?". Based on the results obtained, the groups did not differ with gender based on the Tables 14 and 15. Considering the obtained results, instruction through the web before initiating class can be an influential variable. A superficial comparison of the findings and other similar studies (Roskos & Brueck, 2009), as the theoretical framework of (Yang et al., 2018) study, shows that results of this study confirm other studies, but the issue of technological equipment caused problems during the virus outbreak. To summarize, the effect of integrating DL instruction and DA on Iranian EFL learners' lexical and grammatical accuracy skills does not differ with gender, and the use of Digital tools does not influence the Iranian pre-intermediate EFL learners' lexical and grammatical accuracy skills in three month-periods (pre-teach-teach-reteach) and an Iranian EFL classroom can benefit from teacher's digital literacy in English institutes potentially with advanced tools. Also, they do not benefit significantly from the interaction between mediator and primary intercalants through digital literacy.

REFERENCES

- Anderson, J. R. (1984). The development of self-recognition: A review. *Developmental Psychobiology*, 17(1), 35–49. <https://doi.org/10.1002/dev.420170104>
- Andrade, H. L. (2019). A critical review of research on student self-assessment. *Frontiers in Education*, 4, 1-13. <https://doi.org/10.3389/educ.2019.00087>
- Angelo, T.A. & Cross, P.K. (1993) *Classroom assessment techniques: A handbook for college teachers*. Jossey Bass
- Astiandani, F.R & Anam, S. (2021). EFL teachers' perceptions toward the implementation of online formative assessment amidst the covid-19 pandemic. *Journal of English Language Teaching*. 8(2), 269-277.
- Atweh, B., Bleicker, R.E., & Cooper T.J. (1998). The construction of the social context of mathematics reading comprehension: A sociolinguistic analysis. *Journal for Research in Education*, 29(1), 63 – 82.
- Beckingham, S., & Belshaw, D. (2012). *Connecting the digital dots: 21st century digital literacies*. Paper presented at the CITE Southampton Digital Literacy Conference, Southampton. Retrieved: July, 12, 2012 from



- <http://www.slideshare.net/dajbelshaw/connectingthe-digital-dots-with-sue-beckingham-13325303>
- Birjandi, P. & Mosallanejad, P. (2011). *An overview of testing and assessment*. From Theory to Practice. Isfahan: Sepahan Publication
- Brooks, J., & Brooks, M. (1999). *In search of understanding: The case for constructivist classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development. Retrieved from: <https://cmc.marmot.org> > Ebsco Academic CMC > ocm47008220
- Burns, A., & Richards, J. C. (2009). *The Cambridge Guide to Second Language Teacher Education*. New York: Cambridge University Press.
- Calderhead, J. (1996). Teachers: Beliefs and knowledge. In D.C. Berliner & R.C. Calfee (Ed.), *Handbook of educational psychology* (pp.709 – 725). New York: MacMillan.
- Chester, C., & Quilter, S.M. (1998). Inservice teachers' perceptions of educational assessment. *Journal for Research in mathematics Education*, 33(2), 210-236.
- Cillessen, A.H.N., & Lafontana, K.M. (2002). Children's perceptions of popular and unpopular peers: A multi-method assessment. *Developmental Psychology*, 38(5), 635.
- Cohen, V. L., & Cowen, J., E. (2008). *Literacy for children in an information age: teaching reading, writing and thinking*. Thomson Higher Education.
- Coombe, C., Vafadar, H. & Mohebbi, H. (2020). Language assessment literacy: what do we need to learn, unlearn, and relearn? *Language Testing in Asia*, 10(1), 1-16.15. <https://doi.org/10.1186/s40468-020-00114-1>
- Cope, B. & Kalantzis, M. (2013). Towards a New Learning: The Scholar Social Knowledge Workspace, in Theory and Practice. *E-Learning and Digital Media*, 10(4), 332-356. <https://doi.org/10.2304/elea.2013.10.4.332>
- Countryman, J. (1992). *Writing to learn mathematics: Methods that work*. Portsmouth: Heinemann.
- Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among five approaches (2nd ed.)*. Thousand Oaks, CA: Sage.
- Dardanou, M., & Kofoed, T. (2019). It is not only about the tools! Professional digital competence. In G. Colette & I. Palaeologus (Eds.), *early learning in the digital age* (pp. 61–76). London: SAGE Publications.
- Davies, A. (2008). Textbook trends in teaching language testing. *Language Testing*, 25(3), 327–347.
- Firoozi, T., Razavipour, K. & Ahmadi, A. (2019). The language DL needs of Iranian EFL teacher with a focus on reformed assessment policies. *Language Testing in Asia*, 9(2), 1-14.
- Fulcher, G. (2012). DL for the language reading comprehension. *Language Assessment Quarterly*, 9(2), 113–132.
- Gottheiner, D. M., & Siegel, M. (2012). Experienced middle school science EFL learners' assessment literacy: Investigating knowledge of EFL learners' conceptions in genetics and ways to shape instruction. *Journal of Science Teacher Education*, 23(5), 531-557. <https://doi.org/10.1007/s10972-012-9278>
- Gupta, R., Seetharaman, A., & Maddulety, K. (2020). Critical success factors influencing the adoption of digitalization for teaching and learning by business schools. *Education and Information Technologies*, 25, 1-22. <https://doi.org/10.1007/s10639-020-10246-9>.



- Hashemian, M., & Fadaei, B. (2013). Fostering EFL learners' autonomy in light of portfolio assessment: Exploring the potential impact of gender. *Iranian Journal of Language Teaching Research*, 1(2), 135-151.
- Hidri, S. (2015). Conceptions of assessment: Investigating what assessment means to secondary and university EFL learners. *Arab Journal of Applied Linguistics*. 1(1), 19-43. <http://www.tjaling.org>
- Inbar-Lourie, O., & Levi, T. (2020). Digital literacy as praxis mediating teacher knowledge of assessment-for-learning practices. *In toward a reconceptualization of second language reading comprehension assessment* (pp.241-2590. Springer, Cham.
- Khodabakhsh, S., Abbasian, G. R., & Rashtchi, M. (2019). Incorporation of DA models into developing language awareness and metacognitive strategy use in writing classes. *Journal of Modern Research in English Language Studies*, 5(4), 55-79. doi: 10.30479/jmrels.2019.10826.1353
- Lantolf, J. P., & Poehner, M. E. (2004). Dynamic assessment: Bringing the past into the future. *Journal of Applied Linguistics*, 1, 49–74
- Lantolf, J. P., & Poehner, M. E. (2004). DA of EFL development: Bringing the past into the future. *Journal of Applied Linguistics*, 1(1), 49-72. <https://doi.org/10.1558/japl.1.1.49.55872>
- Lazar IM, Panisoara G, Panisoara I. O. (2020) Digital technology adoption scale in the blended learning context in higher education: Development, validation and testing of a specific tool. *PLoS ONE* 15(7): e0235957. <https://doi.org/10.1371/journal.pone.0235957>
- Leander KM, Rowe DW (2006). Mapping literacy spaces in motion: A rhizomatic analysis of a classroom literacy performance. *Reading Research Quarterly* 41(4): 428–460.
- Levi, T., & Inbar-Lourie, O. (2020). DL or language assessment literacy: Learning from the EFL learners. *Language Assessment Quarterly*, 17(2), 168-182.
- Llopis Nebot, M. A; Esteve-Mon, F. V & Segura, J. A. (2021). Diagnostic and educational self-assessment of the digital competence of university EFL learners. *Nordic Journal of Digital Literacy*. 16(3), 115-131.
- McGuinness, C., & Fulton, C. (2019). Digital literacy in higher education: A case study of student engagement with e-tutorials using blended learning. *Journal of Information Technology Education: Innovations in Practice*, 18, 1-28. <https://doi.org/10.28945/4190>
- Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal*, 11 (4) 351-362. DOI: <https://dx.doi.org/10.24093/awej/vol11no4.23>
- Makhachashvili, R., & Semenist, I. (2021). E-skill and DL for foreign languages education; student case study in Ukraine. Paper presented at the International Conference e-learning. 1, 3-14.
- Martin, A. (2005). DigEduLit – a European Framework for DL: A Progress Report. *Journal of e-Literacy*, 2, pp. 130-136.
- Mehri, Kamrood A; Davoudi, M; Ghaniabadi, S & Amirian, S. M. R. (2021) Diagnosing L2 learners' development through online computerized dynamic assessment, *Computer Assisted Language Learning*, 34(7), 868-897, DOI: [10.1080/09588221.2019.1645181](https://doi.org/10.1080/09588221.2019.1645181)
- Mertler, C. A., & Campbell, C. (2005). *Measuring EFL learners' knowledge and application of reading comprehension assessment concepts: Development of the DLinventory*. [Paper presentation]. The annual meeting of the American Educational Research Association, Montreal, QC, Canada.



- Mirra, N., Morrel, E., & Filipiak, D. (2018). From digital consumption to Digital Invention: Toward a New Critical Theory and Practice of Multiliteracies. *Theory into Practice*, 57, 12-19. doi.org/10.108.1004.5841.2017.139.336
- Norton, B. (2013). Identity, literacy, and English language teaching. *Iranian Journal of Language Teaching Research*, 1(2), 85-98.
- Ockey, G., J. (2021). An Overview of COVID-19's Impact on English Language University Admissions and Placement Tests, *Language Assessment Quarterly*, 18:1, 1-5, doi: 10.1080/15434303.2020.1866576
- Pearson, P. D. (1976). A psycholinguistic model of reading. *Language Arts*, 53(3), 309-314.
- Petersen, D. B., Tonn, P., Spencer, T. D., Foster, M. E. (2020). The classification accuracy of a DA of inferential word learning for bilingual English/ Spanish-speaking school-age children. *Language, Speech, and Hearing Services in Schools*, 51(1), 144-164.
- Poehner, M, E. (2008). *DA: A Vygotskian approach to understanding and promoting second language development*. Berlin: Springer.
- Poehner, M. E. (2005). *DA of oral proficiency among advanced EFL learners of French*. Unpublished dissertation. Pennsylvania State University.
- Poehner, M., E, & Inbar-Louri, O. (2020 eds). *Toward a reconceptualization of second language reading comprehension assessment*. Switzerland, Springer International Publishing. doi.10.1007/978-3-030-35081-9
- Roskos, K., & Brueck, J. (2009). The eBook as a learning object in an online world. In A. Bus & S. B. Neuman (Eds.), *Multimedia and literacy development* (pp. 77–88). New York: Routledge
- Scarino, A. (2013). Language digital literacy as self -awareness: Understanding the role of interpretation in assessment and in teacher learning. *Australia Language Testing*, 30(3), 309-327. doi: 10.1177/0265532213480128
- Shabani, K. (2010). The effects of group DA on EFL learners' listening comprehension skill: An interactionist procedure. In *Proceedings of the First International Conference on ELT in the Islamic World*, ILI Center, December 2010, Tehran, Iran.
- Shabani, K. (2018). Group dynamic assessment of 12 learners' writing abilities. *Iranian Journal of Language Teaching Research*, 6(1), 129-149.
- Shohamy, E., Inbar-Lourie, O., & Poehner, M. (2008). Investigating assessment perceptions and practices in the advanced foreign language classroom. *Report*, 1108.
- Stiggins, R. J., (1998). *Reading comprehension assessment for student success*. Washington: National Education.
- Stiggins, R., & Chappuis, J. C. (2005). Using student-involved reading comprehension assessment to close achievement gaps. *Theory into Practice*, 441, 11-18. Retrieved from <https://www.jstor.org/>
- Stiggins, R. (1991). Assessment literacy. *Phi Delta Kappan*, 72, 534–539
- Stiggins, R.J. (2002). Where is our assessment future and how can we get there from here? In R. W. Lissitz and W.D. Schafer (Eds). *Assessment in educational reform: Both means and ends (112-125)*. Boston: Allyn and Bacon.
- Stobart, G. (2008). Testing times: The uses and abuses of assessment: *Assessment in Education: Principles, Policy & Practice*, 17(3), 335-337.
- Tajeddin, Z., Khatib, M., & Mahdavi, M. (2022). Critical language DL of EFL learners: Scale construction and validation. *Language Testing*. <https://doi.org/10.1177/02655322211057040>.



- Voda, A. I.; Cautisanu, C.; Gr̃Adinaru, C.; T; ̃Asescu, C.; De Moraes, G.H.S.M. (2022). Exploring Digital literacy skills in social sciences and humanities learners. *Sustain skill*, 14(5), 24-83, <https://doi.org/10.3390/su14052483>
- Vygotsky, L. S. (1978). Mind and society. *The development of higher mental processes*. Cambridge, MA: Hayward University Press.
- Yang, H., Male, M., Li, Y., Wang, N., Zhao, C., Jin, S., Hu, J., Chen, Z., Ye, Z., Xu, H. (2018). Efficacy of Hydroxy-L-proline (HYP) analogs in the treatment of primary hyperoxaluria in *Drosophila Melanogaster*. *BMC Nephrol*. 19(1): 167. 10.1186/s12882-018-0980-8