Gender-based Study of Learners' Reading Ability Through Dynamic Assessment (DA): Guthke's Lerntest approach in focus

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Abstract
The intention of the present paper is to seek whether gender has any impact on the effectiveness of applying Guthke's Lerntest approach in reading comprehension. For this purpose, after selecting 60 intermediate EFL learners, they were arbitrarily categorized to four clusters of males and females, two experimental and two control groups, each consisting of 15 male and 15 female learners. Both control and experimental groups took part in a reading performance class, but just the main groups (experimental) were subjected to interventionist model of dynamic assessment (DA) on their reading tests, and control groups were assessed through static testing method. A pretest and a posttest were given to the intermediate level and, a questionnaire comprising 16 items was given to the experimental groups to elicit their attitudes towards the application of Guthke's Lerntest approach. To examine the hypotheses of the current research, independent t-test and Likert -scale were used. The results of the study revealed that EGM and EGF learners were not very much different with regard to their performances on the reading post-test. In addition, the learners held highly positive attitudes towards DA practices in their EFL setting.

Keywords: Dynamic assessment, Guthke's Lerntest approach, reading ability, Zone of Proximal Development

Introduction

Since, DA offers a wealth of development, according to Lidz and Gindis (2003), in DA approaches; the emphasis on the process of learning is more than the products of it. In another terms, Vygotsky's observation which stated that "a body can show whatever in movements, is the dynamic nature of this approach". In addition, a dynamic interactive clarification of the learner's learning and thinking processes involves in it. Thus, investigating a learner's strategies for learning and ways in which these strategies may be extending or improving is the aim of DA. According to Birjandi, Daftarifard, & Lange, 2011, DA provides learners with strategies and processes of learning. Lidz (1997, p. 282) stated that " where traditional psychometric assessment ends, DA begins. Dynamic assessor views the ceiling as an area of functioning that warrants exploration' Instead of terminating the procedure with the establishment of a ceiling. Enhancing an initial capability when mediated through learners is the rationale behind this method of assessment. Some significant changes which occur in reading theory were accompanied to DA. Contemporary authors pay greater attention to the cognitive aspects of reading, without ignoring the role of more solidified reading skills. It was demonstrated that successful readers do some efforts to understand the text, such as monitor their reading, plan strategies, and adjust effort appropriately (Grigorenko, 2007).

Thus, this study was intended to shed some light on the impact of gender (male & female) on reading comprehension ability and the learners' attitudes towards using Guthke's Lerntest approach. According to what was mentioned above, the following research questions were addressed:

1. Does gender have any impact on the effectiveness of applying Guthke's Lerntest approach in reading comprehension?
2. What is the Iranian EFL learners' attitude towards the application of the above-mentioned model in the enhancement of reading comprehension ability?

Literature Review

The incorporation of instruction and assessment through empowering the conductor combines in Vygotsky's theory of mind which is named as DA. Therefore, a contradiction of some of the most revered notions in education and psychology, namely innatist theory of mind was lies in assessment-instruction. So, the nation which states social environment must be controlled and individuals assessed in isolation is contrasted with DA. According to the socio-cultural theory, human leaning is a kind of mediated leaning, that is, using mediation helps human cognition development from other-regulation (e.g. teacher's assistance). In the other-regulation process the learners skip the distance, which called ZPD, between their present developmental level and the mediator's. As Xiaoxiao and Yan believe, in ZPD, the whole image of learners' improvement consists of their actual level of development and their answers to mediation which can help their future tasks. In 1978 a suggestion was mentioned by Vygotsky in that instruction should not wait for developmental readiness, but rather, when learners take part in activities that are beyond their current level of ability, development happens and when learners development becomes the aim of educational activities which is the major aim of DA, then the total combination of assessment and instruction can be achieved.

Another study was done by Lantolf and Poehner (2011), which investigated the impact of K-5 Spanish instructor utensil DA with a group of learners. As, DA used just with one mediator and only one participant without changing instructional objectives or purposes, they integrated DA into daily schedules, in order to promote the enhancement of topic agreement in Spanish and obtained positive outcomes in improving the ZPDs' groups. Also, Murphy (2011, p. 1), refers to dynamic assessment as "an approach to understanding and conceiving an individual in the assessment process". The other research is belongs to Ableeva (2007) utilized a dynamic assessment in testing listening comprehension of French learners in university which exposed of some difficulties in comprehending. This discovered that learners' capabilities were more improved than one would have conjectured from not communicated competence. Verspoor, Schmid and Xu (2012) explored that establishment of objective measures to assess L2 learners' written texts and at the same time to obtain insight into the dynamic process of language development can be done through a dynamic usage based (DUB). Their study showed that in assessing general proficiency at the lower levels of L2 proficiency and that a cross-sectional study of samples at different proficiency levels short writing samples could be useful and bring new images into dynamic L2 experimental design. The study of dynamic assessment and academic writing development was published by Shrestha and Coffin (2011). They found that the combination of DA were took place in DA. Their study emphasized on some drafts which were in line with tutor-researcher and two business students. They concluded that their academic writing by responding to their individual needs will develop and help under graduate students through a learning theory-driven approach like as DA.

Methodology

Participants

This paper sought to examine the impact of English learner gender so as to find out the differences between male and female in terms of their operations in reading tests and also their perceptions towards dynamic assessment principles. The participants were selected from among second-semester students in Shahrekord Azad University, Iran. The sample for the study (N=60) was a homogenous intermediate level one. They were classified into four clusters, two main groups (experimental) and two control groups, each including 15 male and 15 female, learners by applying the Quick Placement Test. It is noticeable that, the average ages of the participants were between 20 -25 and two experimental groups was subjected to interventionist model of DA.

Procedures

A total of 20 reading comprehension questions which elicit from the TOFEL reading comprehension and vocabulary were applied to carry out this test by adopting ARCO book. Although, both experimental and control clusters took part in reading performance class, but just main groups (experimental) were subjected to interventionist model of DA on their reading texts. Providing DA groups with mediation, Lantolf and Poehner's (2011) scale was adopted on the basis of forms of mediation. The mediator gave no mediation when the learner's answer was right. However, when the learner's answer was not suitable and in appropriate, the mediator provides more explanations till the last step. As a matter of fact, a list of standardized hints were applied during reading test to run DA the treatment group received intervention that is Guthke's Lerntest approach which is known as Leipzig Learning Test (LLT) (Guthke& Beckmann,2000).

If examinee's first effort to reach the answer was not successful, the instructor would say:" That isn't correct, think about it again, please" if the second effort was also incorrect, the instructor offered more explicit hints; "Think about which options are most relevant to complete the answer". When the next try failed, the instructor offered more definite clue:" it is not right. Please check other options". When the answer is not accurate yet, a very definite clue is proposed:" it is not right- please check other options and emphasize on diversities in both the functions of the sentences and the words if this way is not successful to make the right answer", the instructor presents the right sentence and clarifies correct form, but at this stage, the two control groups were assessed in reading comprehension class statistically, i.e. without any feedback or intervention to find out the correct answer during reading comprehension texts. After these stages, intermediate level learners were given a post-test, at last, a questionnaire consisting 16 items were given to the experimental groups to elicit their attitudes towards Guthke's Lerntest approach on the improvement of reading comprehension ability.

Finally, the researchers measured the learners' attitude towards DA practices through dynamic assessment Guthke's Lerntest approach by writing sixteen statements. The answers drawn from categorical questions were given to Likert-scale options. This had the rank of 1 to 5. Subsequently, to check the results, an exploratory analysis was run.

Data Analysis

Data analysis consisted of One-Way ANOVA and t-test. One-Way ANOVA was used to be certain that the four groups did not have preexisting differences regarding to reading performance before the experiment began. In addition, an independent sample t-test was administered to help bolster the outcomes. Furthermore, the data obtained from an attitude questionnaire were analyzed through Likert-Scale.

Results

Regarding the research question which asked whether gender has any impact on the effectiveness of applying Guthke's Lerntest approach in DA, the results showed in Table 4.1 that EGM and EGF students were not very much different with regard to their performances on the reading posttest.

Table 4.1 One-Way ANOVA Results of the Reading Pretest

	Sum of Squares	df	Mean Square	F	*Sig.*
Between Groups	1.383	3	.461	.787	.506
Within Groups	32.800	56	.586		
Total	34.183	59			

However, for a better measurement, an independent sample *t* test was administered to help boost the previously obtained outcomes.

Table 4.2 Descriptive Statistics Results Comparing EGM and EGF on the Reading Posttest

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Reading Posttest	EGM	15	18.60	.98	.25
	EGF	15	19.13	.83	.21

As it went before, the mean score of EGF was higher than the mean score of EGM ($M = 18.60$) ($M = 19.13$). The (in-) significance of this difference, however, needs to be checked in the *t* test table below.

Table 4.3 Independent-Samples T Test Results Comparing EGM and EGF on the Reading Posttest

		Levine's Test for Equality of Variances		T test for Equality of Means					95% Confidence Interval of the Difference	
		F.	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Reading	Equal Variance	.636	.432	-1.6	28	.121	-5.33	.33	-1.21	.149

Postt est	s Assume d	0						
	Equal Variance s not Assumed	-1.6 0	27.2 52	.121	-5.33	.33	-1.21	.150

The *Sig.* (2-tailed) value represents a *p* value larger than the significance level (.121 > .05), indicating that the difference between the EGM and EGF students did not reach statistical significance. Hence, the relationship between the independent variable and the dependent variable of the study did not modify through gender and thus cannot be considered to be an effective factor in this regard.

The second research question of the current study asked "Do Iranian EFL learners have positive attitudes towards the application of the above-mentioned model in the enhancement of reading comprehension ability?" The data obtained from an attitude questionnaire were analyzed to help answer this research question.

Because each choice in this Likert-scale questionnaire had a value assigned to it for instance, *strongly agree = 5, Agree = 4, Uncertain = 3, etc.* the mean point of every questionnaire detail was compared against the average point of the choices (that is 3 since 5 + 4 + 3 + 2 + 1 divided by 5, which equaled 3). This would mean that if the mean score of a questionnaire item was less than 3, there was a tendency among the participants to disagree with the statement. On the contrary, a mean score more than 3 shows their tendency to agree with a given statement.

Table 4.4 Results of the Questionnaire Exploring the Attitudes of the Learners towards DA

No.	Statements	Frequency/Percent	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Mean
1	During test administration teacher's hints help me obtain good reading comprehension ability.	Frequency Percent	28 93.3%	2 6.66%	0 0%	0 0%	0 0%	4.93
2	When the teacher checks my answers makes me have more concentration.	Frequency Percent	10 33.3%	20 66.6%	0 0%	0 0%	0 0%	3.00
3	The interaction between the teacher and me during reading increases my self-confidence.	Frequency Percent	27 90%	3 10%	0 0%	0 0%	0 0%	4.80
4	By teacher's hints during reading, I	Frequency ncy	27 90%	3 10%	0 0%	0 0%	0 0%	4.80

	become more aware of my weak points.	Percent						
5	Teacher's hints during reading are effective in gaining a high score.	Freque ncy Percent	30 100%	0 0%	0 0%	0 0%	0 0%	5.00
6	Teacher's hints during reading's test make me interested in improving my reading comprehension ability.	Freque ncy Percent	26 86.6 %	4 13.3 %	0 0%	0 0%	0 0%	4.86
7	By teacher's hints during test administration, I don't think about cheating.	Freque ncy Percent	28 93.3 %	2 6.6 %	0 0%	0 0%	0 0%	4.93
8	By teacher's observation during the test I'm more aware of reading tips.	Freque ncy Percent	25 83.3 %	5 16.6 %	0 0%	0 0%	0 0%	4.83
9	By teacher's hints during reading, I can read and comprehend the texts better than before.	Freque ncy Percent	28 93.3 %	3 6.6 %	0 0%	0 0%	0 0%	4.93
1 0	Teacher's hints during test help me read faster and understand the phrases and new words better.	Freque ncy Percent	27 90%	3 10%	0 0%	0 0%	0 0%	4.80
1 1	Teacher's hints during the test makes me pleased.	Freque ncy Percent	30 100%	0 0%	0 0%	0 0%	0 0%	5.00
1 2	By teacher's hints during reading, I can understand that my understanding is being improved.	Freque ncy Percent	30 100%	0 0%	0 0%	0 0%	0 0%	5.00
1 3	By teacher's hints, reading is funnier.	Freque ncy Percent	27 90%	3 10%	0 0%	0 0%	0 0%	4.80
1 4	Teacher's hints make me feel less stressed.	Freque ncy Percent	30 100%	0 0%	0 0%	0 0%	0 0%	5.00
1 5	In future, if I have more free time at home, I'll read more.	Freque ncy Percent	26 86.66 %	4 13.3 %	0 0%	0 0%	0 0%	4.86
1	Generally, I agree with	Freque	30	0	0	0	0	5.00

6	teacher's hints during reading comprehension tests.	ncy Perce	100%	0%	0%	0%	0%

Table 4.4 shows that the entire mean scores in the rightmost column of the table are well above 3 (except for Item 2 of which the mean score equaled 3). This indicates that the learners, by and large, agreed with the items in the attitude questionnaire. The lowest mean score belonged to Item 2 ($M = 3.00$). The highest mean scores equaled 1 and belonged to Items 5, 11, 14, and 16, which respectively stated "Teacher's hints during reading are effective in gaining a high score," "Teacher's hints during the test makes me pleased," "Teacher's hints make me feel less stressed," and "Generally, I agree with teacher's hints during reading comprehension tests." All in all, the learners held highly positive attitudes towards DA practices in their EFL classes.

Conclusion

The present study intended to seek the influence of DA, focusing on Guthke's Lerntest approach, on reading comprehension ability regarding gender. The participants were selected from among the second-semester learners who majored in Veterinary medicine, Shahrekord Azad University, Iran. On the whole, the participants who were utilized to carry out the study comprised 30 male and 30 females. In conformity with the gained outcome, there was not any revealing difference between males and females regarding the application of Guthke's Lerntest approach. Furthermore, the results of the used questionnaire revealed that learners had positive attitudes towards DA practices in EFL settings.

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