The Effect of Dynamic Assessment on EFL Learners’ Intrinsic Motivation

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Abstract—This study was intended to explore the effect of an interactionist model of dynamic assessment (DA) on Iranian EFL adult learners’ intrinsic motivation. One hundred participants were selected based on the convenience sampling procedure. The participants were assigned to the experimental (n=50) and control (n=50) groups. An interactionist model of DA in reading comprehension was implemented in the experimental group seven times during the term. Data were collected through the Academic Motivation scale and were analyzed by an independent-samples t-test. The results indicated a significant difference between the two groups in terms of their amount of intrinsic motivation. It is concluded that incorporation of DA as a supplement procedure to classroom activities has a positive effect on EFL learners’ intrinsic motivation.

Index Terms—dynamic assessment, intrinsic motivation, extrinsic motivation, reading comprehension

I. INTRODUCTION

All effective language learning environments has an unquestionable dependence to the existence of intrinsic motivation in language learners. The concept of ‘integrativeness’—a willingness to learn a language in order to “come closer to the other language community” (Gardner, 2001) has been one of the main issues to be considered in language learning by the researchers and educators. Learning a foreign language has a different process as compared with the learning processes necessary for other skills. As Krumsch (2001) argues, “learning another language is not like learning math or other subjects...it is likely to involve not only the linguistic and cognitive capacities of the learner, but the social, historical, emotional, cultural, moral sense of self as a subject”. Therefore, learning another language seems to be a multi-dimensional ability which goes beyond linguistic and cognitive capacity of the learner and demands caring the affective filter sides as well as socio-cultural aspects of learning too.

Since having intrinsic motivation is among the main aspects of learning a foreign or second language, a lot of researchers are interested to investigate the effect of integrative motivation in foreign language learners and to explore the extent to which learners’ achievement and success are affected by it.

Dornyei and Otto’s model of L2 motivation, which is called the process-oriented model, is focusing on the dynamic capacity of the intrinsic motivation and on its capability to be affected by different factors including environment and time; the model also suggests that motivation may not be stable during the learning process in the long run (Dornyei and Otto, 1998). Accordingly, the concept of static trait is no longer validated. Alsoit has been apparent in many studies that intrinsically motivated learners are superior to the extrinsically motivated individuals. Maslow (1970) stated that intrinsic motivation is long-term and more superior to extrinsic motivation. Also he proposed that extrinsic motivation is not as long lasting as intrinsic motivation is. In the language learning process teachers’ task is not only to generate motivation in learners but also to help them with its maintenance. As it seems, in the Iranian EFL context, there is little concern toward the learners’ intrinsic motivation. And learners participate in language classes mainly because they need it for job opportunities or academic purposes. Therefore, the majority of learners find it difficult to continue their language study. Most practitioners think intrinsic motivation is something related to the individual characteristics, and they can do nothing about it. However, it has been stated in several studies that intrinsic motivation is a dynamic process which is influenced by different factors like enjoyment (Malone 1981; Malone and Lepper 1987; Lepper 1998; Lepper and Cordova 1992; Cordova and Lepper 1996; Inyengar and Lepper 1999, 2000), deeper understanding and the ability to make connections. The assumption made in this study is that if teachers lead their class energetically, and the information and feedback which is provided by the teacher is appropriate and useful, then the students are more likely to take an active part in their own learning. In Dornyei’s (2001) research, the techniques which help the teachers toward development and maintenance of intrinsic motivation in language learners have been offered. Dornyei (2001) also states that one way to interfere in the learners’ motivation is simply to improve the teaching quality provided to learners.

In contrast to the general perspectives about motivation, it has been stated by various researchers that motivation of the students is subject to change by various factors. According to Dornyei (2001), both external and internal factors which learners are confronted with during the process of language learning could be a source in labeling the motivation an evolving construct. In their 1985 work, regarding intrinsic motivation Deci and Ryan contend that “intrinsic
motivation will be operative when action is experienced as autonomous” (p. 29). Also, it is offered that students' intrinsic motivation would be enhanced when the class activities are enjoyable (Malone 1981; Malone and Lepper 1987; Lepper 1998; Lepper and Cordova 1992; Cordova and Lepper 1996; Inyengar and Lepper 1999, 2000). There have been plenty of empirical studies that evidence the changeability of intrinsic motivation. For example, studies showed that when the learners are interacting meaningfully their intrinsic motivation is positively influenced and consequently their problem solving ability is enhanced (Ragan, 1998). Deci et al. (1999) revealed that intrinsic motivation in learners is decreased when they are given tangible feedbacks such as money and would be enhanced when the rewards are given in verbal format.

Therefore teachers need to be aware that if they cannot do much to improve their students' instrumental motivation there are certainly many strategies and techniques they can employ to increase their students' intrinsic motivation. Although these studies provide some evidence of modifiability nature of the intrinsic motivation, to the best of our knowledge, there have been no comparable studies examining the potential effects of testing instruments such as dynamic assessment that could be testing and teaching at the same time, on students' intrinsic motivation. The specific purpose of the present study was to explore the possible causal relationship that may exist between implementing the dynamic assessment model in EFL classes and students' intrinsic motivation enhancement. Consequently, the following research question was formulated: Will individuals receiving dynamic assessment procedure gain different levels of intrinsic motivation compared with individuals who do not receive this model of integrative assessment?

Based on the above question, the following research hypothesis was conceived:

**H1:** After the dynamic assessment model is implemented, there is a significant increase in students' intrinsic motivation as compared with those who do not receive the dynamic assessment.

## II. METHOD

### A. Participants

The participants in this study were 100 EFL learners in Jihad Daneshgahi Institute in Kermanshah, Iran. The participants, who were within the age range of 18-24, consisted of 60 females and 40 males. At the time of this study, they had been learning English for 2 years as a foreign language in this particular institute. They were mainly university students and were studying English for the purpose of finding a better job or achieving higher degrees in their related fields. Also, they were studying Top Notch series (Saslow and Ascher, 2007) for improving their language proficiency. The classes met three times a week for 25 sessions.

The participants were selected based on the convenience sampling procedure. Having the cooperation of the manager in Jihad Daneshgahi Institute in Kermanshah the researchers’ selected four classes, each of which included 25 students. The selected classes’ were randomly assigned to two experimental and two control classes, therefore using 50 students as an experimental group and 50 students as a control group. The dynamic assessment procedure was implemented in the experimental classes; but the control classes were taught the same set of concepts using the traditional method of reading assessment. Attempts were also made to equalize the conditions in the groups, such as time and length of the instruction.

### B. Materials and Instruments

For the purposes of data collection, the researchers used the following materials: the pre-intermediate Selective Reading textbook (Michael Kinsley, 1999...) and Preliminary English Test (PET) reading comprehension on line prepared tests by Cambridge as a source for the test preparation during the DA implementation.

An intrinsic motivation questionnaire was adapted from “The Academic Motivation Scale” (AMS) by Vallerand et al. (1992, 1993). The questionnaire is based on the self-determination theory. It has 28 items and seven subparts: a) one subscale for amotivation b) three for extrinsic motivation and c) three for intrinsic motivation. Our adapted questionnaire includes three sections related to intrinsic motivation. It has three sub parts which measures: (a) Intrinsic Motivation Knowledge, (b) Intrinsic Motivation Accomplishment and (c) Intrinsic Motivation Stimulation.

### C. Design

As Dornyei (2007) maintain, “in most educational settings random assignment of students by the researcher is rarely possible”. Therefore employing a quasi-experimental design, wedrew on the Sandwich model originally introduced by Sternberg and Grigorenko (as cited in Poehner, 2008) through which the DA treatment was implemented. In this approach to DA, a mediation phase is sandwiched between a pre-test and a post test that are administered in a non-dynamic manner. Then, the post-test is compared to that of the pre-test to determine how much learning has developed.

The mediation phase in this research involved mediator-learner interaction, entailed hints, prompts, questions, suggestions, and explanations determined by the mediator's assumptions about learner needs and when learners request for mediation. After the post-test, learners in both groups were asked to answer the Academic Motivation questionnaire. A detailed description is presented in the next part.

### D. Procedure
The instructor of the classes (who is the second author of this article) taught the four selected classes. Two of them were randomly assigned as the experimental groups and the other two classes as the control groups. As we intended to deliver reading lessons through a DA Sandwich model, attempts were made to ensure the homogeneity of the students’ ability in EFL reading through the administration of the Nelson reading test.

<table>
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<tr>
<th>TABLE 1: PROFILE OF THE PARTICIPANTS</th>
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<tr>
<td>Control group</td>
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<td>Experimental group</td>
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N: Number; M: Male; F: Female

It was intended to allocate 30 minutes of experimental classes’ time to reading using the DA Sandwich model as follows:

Stage one: The students were given a test and asked to answer the questions. The questions involved both multiple choices and open-ended types. Then the instructor took the papers home and scored them. She even provided individual comments and explanation to the errors in a marginal format and gave the papers back to the students.

Stage two: The instructor in a discussion format tried to uncover the problematic areas found in the students’ test. The instructor, who has got a mediator role, offered feedback, gave explanations, asked them to explain why they chose the wrong answer, and provided them with different techniques mostly with thinking aloud. The mediator did her best not to reveal the answer and let the students themselves find the correct answer.

Stage three: In this stage, another reading comprehension test was administered. The mediator used the same procedure of scoring as the first one and gave the marked papers back to the students. But there was no discussion on it.

These three stages were repeated seven times during the term in the experimental groups. In the control group, students were only required to take the reading comprehension test and no elements (e.g., offering feedback, giving explanations) of the DA procedure were observed.

Two sessions to the end of the term, we conducted the survey on intrinsic motivation. The students in all four classes were asked to answer the questionnaire. Data were collected in June 2011. To reduce the context effect on testing, we selected a large hall, so that all the students could be accommodated. All the questionnaires were administered in the same day from 10:00 a.m. until 11:30 a.m. The students were told that the questionnaires aimed to measure their intention for learning English and it has nothing to do with their course mark. They were assured that, no one except the researchers would have access to their responses and their names would not be used in reporting the results. The students were asked to read each part carefully and provide correct answers in the answer sheet. It was a two-part questionnaire. The first part was dedicated to demographic information. The students were asked to answer the questions about their age, gender, language background, etc. And the second part measured their intrinsic motivation. The results are presented in more details in the next section.

### III. DATA ANALYSIS

This study was designed to investigate the possible effect of dynamic assessment on students’ intrinsic motivation. Thus, the following research question was proposed:

Will individuals receiving dynamic assessment procedure gain different levels of intrinsic motivation compared to individuals who do not receive this model of integrative assessment?

Based on this question the following research hypothesis was formulated:

**H1:** After the dynamic assessment model is implemented, there is a significant increase in students’ intrinsic motivation as compared with those who do not receive the dynamic assessment.

In order to compare the students’ intrinsic motivation, data were hand-scored and entered into a statistical software package (SPSS 16) for the quantitative analysis. Table 2 shows the result of descriptive statistics. The mean scores of the groups show that the experimental group has more intrinsic motivation to continue learning the language than the control group.

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<th>TABLE 2: DESCRIPTIVE STATISTICS OF THE EXPERIMENTAL AND CONTROL GROUPS</th>
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To ensure that the obtained difference is statistically significant, an independent-samples t-test was used. Table 3 shows that there was a statistically significant difference between the experimental group \((M=5.38, SD=2.30)\) and the control group \((M=4.08, SD=2.07)\). \(t\) \((97)=2.942, p=.00\). Results suggest that the dynamic assessment procedure could be a significant predictor of intrinsic motivation. Learners in the experimental group reported to be more intrinsically motivated to learn English as a foreign language as compared with the control group.
TABLE 3:

INFERENTIAL STATISTICS (RESULTS OF INDEPENDENT-SAMPLES T-TEST)

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<tr>
<th>Learner’s T Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
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<td>Sig.</td>
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<td>.88</td>
<td>.58</td>
<td>2.94</td>
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IV. DISCUSSION

Actually we can draw a conclusion that the results from the present study provided sufficient evidence for the hypothesis of the study. The result of the independent sample t-test shows that intrinsic motivation in the experimental group is higher than the control group. Therefore we can assume that we are safe in rejecting the null hypothesis through the results. The findings seem to add to the evidence contributed by many studies (Malone 1981; Malone and Lepper 1987; Lepper 1998; Lepper and Cordova 1992; Cordova and Lepper 1996; Inyengar and Lepper 1999, 2000) on the dynamic characteristic of intrinsic motivation that can be changed and that it is not a fixed variable. The result of the present article add validity to the argument provided by Ryan and Deci (2000) which states that intrinsic motivation will be facilitated by the task which is in the proper level of difficulty, the feedback which is promoting and the absence of forceful assessment. The finding also gives support for the arguments of Benson (2000), Brown (1994), Dickinson (1995), Holec (1981) and Littlewoods (1999), who have stated that intrinsic motivation will be fostered if we give the second language learners an amount of freedom to the extent that they feel responsible for their own course of learning.

According to the independent samples t-test, the students who underwent a Dynamic Assessment procedure were intrinsically motivated more than the students who didn’t undergo the same procedure. These results seem to support the conclusion from several studies in both second and foreign language learning context (Malone 1981; Malone and Lepper 1987; Lepper 1998; Lepper and Cordova 1992; Cordova and Lepper 1996; Inyengar and Lepper 1999, 2000) proposing that students’ intrinsic motivation could be enhanced. As Dornyei (2001) states, ‘motivation is a continuously evolving construct, which is a subject to various internal and external influences confronted by the learner. now we can answer the research question: there is a significant difference in students’ intrinsic motivation while a dynamic assessment procedure is implemented and that there is a positive relationship between having a DA procedure and intrinsically motivated learners. These findings are also in accordance with previous researches revealing that when the amount of self-confidence in learners increase as a result of experience and when second language learners gain more control in their own process of learning there are more intrinsic reasons to study and continue their learnings. The Self-Determination Theory (SDT) can give us an explanation:

“Intrinsic motivation stems from the organism’s need to be competent and self-determining. Perception of competence and perception of control are apparently distinct yet not easily separated. If a learner perceives himself as being highly competent in a learning situation, then the opportunities to take control of that situation will be meaningful to him. On the other hand, in order to experience a feeling of competence, it is necessary to feel responsible for the actions and outcomes that demonstrate competence (Ryan and Deci, 2000).”

One possible explanation for such difference would be the quality of teaching. Dornyei (2001) also point to this issue that ‘the best motivational intervention is simply to improve the quality of our teaching’ (p. 26). DA can be, therefore, seen as an assessment and at the same time a teaching procedure which increases the quality of teaching and learning.

The findings of the present study can be also explained this way greater motivation will be resulted if the learning process is successful enough to the learners especially to the learners who feel responsible for their learnings’ achievements. Motivation is seen as a result of taking responsibility for learning outcomes. It has been reported by Kaufman and Kouzulin (1998) when a DA was implemented in Israel it resulted in high level of achievement.

Gardner’s (1985) in his model states that, ‘attitudes toward the learning situation’ is a vital component of motivation existence. So any experienced teacher is aware of the fact that student anxiety created by a tense classroom environment is a powerful factor in undermining L2 process of learning. Therefore implementing a dynamic procedure could break so many affective filters due to the rapport which is made between teacher and the students. And this could be another explanation of high amount of intrinsic motivation among the individuals in the experimental group.

In conclusion, the principle findings from this investigation may include:

1. The positive effect of dynamic assessment procedure on students’ intrinsic motivation
2. Intrinsic Motivation is not affixed construct; therefore tutors may be able to influence students’ intrinsic motivations.

V. CONCLUSION
This study aimed at determining whether there is a significant difference in students’ intrinsic motivation while a
dynamic assessment procedure is implemented. Analysis of the obtained data showed EG superiority over CG on the
amount of intrinsic motivation. Overall, findings provided the answer to the main research question: There is a
significant difference in students’ intrinsic motivation while a dynamic assessment procedure is implemented. In the last
chapter, all the findings were discussed and interpreted in relation to the literature presented earlier. This chapter
explains the implications of these findings, suggestion for further research, and the concluding remarks.

A. Implications
The researcher so far tried to interpret the findings related to the hypothesis proposed earlier. Some conclusion and
interpretations were drawn from the explanations. The findings may have some implications if the interpretations are
correct. However, it should be noted that theses implications need to be examined in real situations.

Gardner in his theory of Multiple Intelligences has emphasized the role of dynamic assessment since assessment
process is no longer separated from the learning process, the examination room is no longer separated from the
classroom, and the examination time is no longer separated from the learning time. Therefore it’s no longer separated
from dynamic atmosphere of the classroom. According to these facts and that the motivation is not a fixed construct and
dynamic assessment is a step toward improving the quality of the teaching; teachers should try to implement DA in their
classes as a way toward raising the students’ intrinsic motivation. The rapport which is created during this procedure
between the instructor and the students is one of the factors that the learners need to be intrinsically motivated to learn
the language. Rogers, 1983 states that a good rapport between the teacher and the students is a fundamental need in any
modern, student-centered approach to education. In order to improve students’ language learning, EFL teachers need to
understand how important the role of motivation esp. intrinsic motivation in the process of learning is. In fact teachers
should become more aware of their students intrinsic motivation in order to orient teaching methods more appropriately.
And DA could be an effective assessment method and at the same time a teaching method in which it will lead to
greater amount of intrinsic motivation among the learners. Besides it will reduce the anxiety which is sometimes created
in EFL language classes. In Gardner’s (1985) model, ‘attitudes toward the learning situation’ is a key determinant of
the motivation complex, and any practicing teacher is aware of the fact that student anxiety created by a tense classroom
climate is one of the most potential factors that undermine L2 motivation (e.g. Machtynye and Gardner, 1991; Young,
1991). Therefore through the rapport which is created among the learners and the teacher this negative affective filter
can be controlled to some extent.

To this end, by having a dynamic assessment procedure in language classes, teachers can help the students to
identify their problems and be aware of it to work more on that point or it can simply be solved by a hint which is given
to them by the teacher. The findings also imply that, language curricula, materials and instructional approaches should
incorporate dynamic assessment beside the usual static assessment as a way toward increasing students’ intrinsic
motivation to learn the language. In addition, the use of DA can enable the students to take responsibilities for their own
learning by enhancing learner autonomy, independence and self direction. These factors are important because learners
need to keep on learning when they are no longer in a formal classroom setting (Oxford, 1987).

B. Suggestions for Further Research
Interpretations and findings of this study lead to several recommendations for further research. First, it is
recommended that a replication of this study be done wherein:

a) The subjects of this study are compared with other populations such as those not majoring in English.
b) The Academic Motivation Scale is compared with other types of scales
c) The amount of intrinsic motivation is measured through other language skills such as speaking, listening or writing
when a DA procedure is implemented.

Second a more detailed look at variables influencing the intrinsic motivation is needed. Affective factors such as self-
esteeem, self confidence, and self determination might relate to the amount of intrinsic motivation. To consider as many
variables as possible will enable language teachers and researchers to draw a more accurate, and global picture of what
is happening to an individual when he or she is learning a language.

Third, longitudinal research which identifies the other learning factors which are affected by having a dynamic
procedure in EFL classes is needed.

Fourth, qualitative research studies will provide a throughout look at language learning behavior.

In conclusion, the findings provided support for the idea that students’ intrinsic motivation is enhanced when a
dynamic procedure is implemented in their class. More research is needed in this area to establish how effective
intrinsic motivation may be facilitated by both language teachers and language students.

C. Conclusion and Final Remarks
According to the previous review, dynamic assessment procedure has a role in affecting students’ intrinsic
motivation. This study aimed to determine the possible relationship between the students’ intrinsic motivation and using
a dynamic assessment procedure in EFL classes. To identify the possible change in students’ intrinsic motivation the
researcher used the scale of L2 intrinsic motivation which was adapted from “The Academic Motivation Scale” by
Vallerand et al. (1992, 1993).
Independent samples t-test was used to evaluate the differences in intrinsic motivation between the experimental group, whom a dynamic assessment procedure was implemented during their course, and the control group. And the students in the experimental group reported having higher intrinsic motivation the result was consistent with the finding that “the best motivational intervention is simply to improve the quality of our teaching” Dornyei (2001) and These findings are consistent with earlier studies by Covington (1992), Gottfried (1985, 1990) and Noels et al. (2000, 2001), indicating that learners who had more confidence in their ability and/or experienced more control in their learning showed greater interest in learning for intrinsic reasons. Accordingly, it is recommended that dynamic assessment procedure should not be neglected in the foreign or second language learning curriculum.

This study also provides the instructors with opinions about the role of their teaching quality in EFL classes that can have on students’ intrinsic motivation. The one that sometimes it is wrongly perceived as something fixed that nobody can’t do anything about it except the learners themselves. Consequently, for further research, qualitative research including the other strategies in teaching that a teacher can use in his class to improve the students intrinsic motivation are suggested as a good methodology in spite of being time consuming and difficult to analyze. They allow the objective observation of both ongoing behavior and the mental pictures of the participants.

REFERENCES


Masoud Zoghi is assistant professor of TESL in the Dept. of ELT of Islamic Azad University, Ahar Branch in Iran. He earned his Ph. D. in TESL in 2009 from the National University of Malaysia. He has taught courses on research methodology, ESP, applied linguistics, and language testing at the M.A. and Ph.D. programs in ELT and General Linguistics. His current research and teaching focus includes research methodology in applied linguistics, psychology of language (esp. affective variables), cooperative learning, and reading comprehension.

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She has been teaching English for about 7 years in different institutes and universities. Her main interest is testing and teaching English as a foreign language to Iranian learners. She is working on the Dynamic Assessment and its different applicability for Iranian language learners.