

Iranian EFL Learners' Perception of the Efficacy of Activity Theory-based Reading Comprehension

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Abstract

Any language classroom is a distinctive learning context offering numerous affordances that might be perceived effectively, remain unnoticed, or even act as constraints. Therefore, exploring students' perception toward a particular method of instruction is crucial since it may produce a reliable piece of evidence for teachers to confirm or refute the effectiveness of the intended instructional activities. This study was an attempt to survey Iranian EFL learners' perception of the efficacy of activity theory-based reading comprehension. To this end, 60 students studying English translation at Islamic Azad University, Tehran Central Branch, participated in the study and received the reading instruction based on the elements of activity theory-subjects, object, mediating artifacts, rules, community, and division of labor. After receiving the treatment, the students filled in two perception questionnaires and took part in a semi-structured focus group interview. The findings indicated that the students showed favorable perception toward activity theory, for which they perceived different affordances. Moreover, the results demonstrated that there was a significant difference between the students' perception regarding the mediating elements of activity theory. The study provides EFL teachers with new insights into the considerable benefits that activity theory might bring to reading classes.

Keywords: Activity Theory, Affordances, Perception, Reading Comprehension

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1. Introduction

Second Language Acquisition (SLA) has always been discussed from different perspectives. In recent years, for instance, Sociocultural SLA (Lantolf, 2000) has aroused considerable interest in how to redress the imbalance between the social and the cognitive dimensions of SLA (Firth & Wagner, 1997, p. 757) by offering a “framework through which cognition can be investigated systematically without isolating it from social context or human agency” (Thorne, 2005, p. 393). In other words, emphasizing the social context does not diminish the role of human cognition in relation to communicative performance. Rather, human cognition is socially mediated as a central premise of this theory. Sociocultural theory has developed in different directions, one of which is activity theory (AT).

Having its roots in mediation, AT expands on the origin of Vygotsky's (1978, as cited in Engeström, 1987) initial proposals, based on which human activity is mediated by cultural artifacts. That is why Engeström (2001) calls Vygotsky's theory and his well-known triangular model as the first generation of AT. While the unit of analysis is individually-focused in the former generation, in AT it is conceptualized that the most useful unit of analysis is the collective activity (Engeström, 2001; Leont'ev, 1978). Such a distinction made by Leont'ev between the individual action and the collective activity laid the foundations of a second generation to be built. However, as Engeström (1987, 2001) asserts, Leont'ev never graphically expanded Vygotsky's original ideas into a model of a collective activity system. Such a diagram model, usually referred to as activity system, was schematized by Engeström in 1987 (Figure 1).

Iranian EFL Learners' Perception of the Efficacy of...

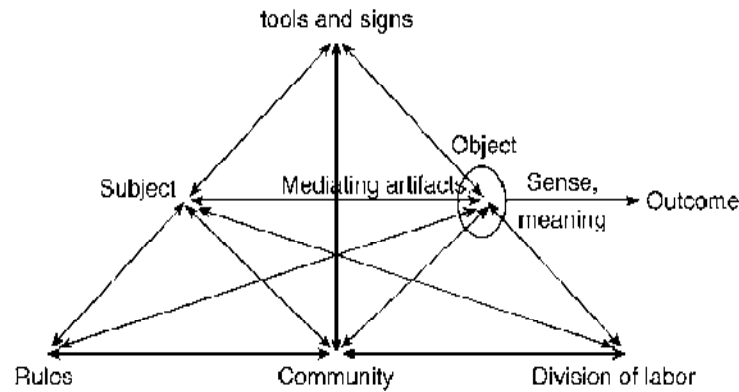


Figure 1. *The Structure of a Human Activity System (Adopted from Engeström, 1987, p.78)*

This diagram depicts the core features of an activity system. As it is indicated in the diagram, an activity system comprises the object to which the whole activity is directed, the subject whose agency is the focus of the analysis, and the artifacts which mediate between the subjects and the object (Engeström, 1993). The three components of the activity system at the bottom of the diagram including, rules, community, and division of labor are attached to the first generation diagram, called “tip of the iceberg” (Engeström, 2001, p. 134), to expand the core meaning of mediation in this theory. Rules are defined as “the explicit and implicit regulations, norms and conventions that constrain actions and interactions within the activity system”; community is “multiple individuals and/or subgroups who share the same general object”; and finally division of labor refers to “both the horizontal division of tasks between the members of the community and to the vertical division of power and status.” (Engeström, 1993, p. 67)

According to Prenkert (2010) the relationship between the subject and the object is transformed when comparing contextualized activity with de-contextualized action. In the latter, the relationship is mediated by artifacts,

while in the former it is also mediated by rules, community, and division of labor, making it collective in this regard. Engeström (2001), more recently, argues over a third generation of AT to understand “dialogue, multiple perspectives, and networks of interacting activity systems” (p. 135). In the third generation of activity theory, therefore, minimally two interacting activity systems are involved.

Accentuating the relationship between the individual and the activity system, AT has practical implications for the nature of learning in educational research (Wheelahan, 2004). However, it has recently attracted attention in the realm of SLA studies. This study was an attempt to integrate AT into EFL reading instruction to examine the students’ perception of the efficacy of such intervention on their reading comprehension.

2. Reading Comprehension and Activity Theory

Needless to say, there is no single statement to capture the complexity of reading comprehension (Grabe, 2009, p. 107). The literature, as Grabe argues, is replete with different conceptualizations of what reading comprehension is and to do so several theoretical models of reading have been proposed, the most significant of which, according to Urquhart and Weir (1998), are the bottom-up and top-down approaches. While the former is text-driven, the latter is reader-driven. Interactive models, however, brought reading theory into a multidimensional view, assuming a synthesized pattern based on information provided simultaneously from several knowledge sources (Stanovich, 1980).

These models, however, rely heavily on the cognitive dimension of reading and discard the impact of social and cultural context on L2 reading ability (Grabe, 2009). According to Alderson (2000), reading is not an isolated activity

Iranian EFL Learners' Perception of the Efficacy of...

occurring in vacuum. Rather, it is usually done for a number of purposes in a social context. In the domain of sociocultural theory, according to Zoghi, Mustapha, and Maasum (2010), the nature of reading process and the act of a reader have witnessed reconceptualization in such a way that reading is perceived as a sociocultural, collaborative experience and the reader is considered as a member of sociocultural groups. Put it another way, “meaning is co-constructed through the interdependence of social and individual processes of collective reading activities.” (Commander, de Guerrero, & Rico, 2013, p. 171)

Influenced by such a social view, Cole and Engeström (1993) put an AT perspective on reading comprehension. They believed that the process of reading acquisition remains disputed after several decades of research and “especially troublesome has been the problem of accounting for reading with comprehension” (p. 22). To Cole and Engeström, the part of the problem in reading studies is that the psychological models of reading acquisition fail to take account of the distributed properties of cognition among teacher, student, other students, and the cultural artifacts around which they coordinate in the activity called “teaching/learning to read” (p. 23). To Cole and Engeström the mediated activity system of reading instruction should be considered and defined in advance. They defined and implemented an L1 reading comprehension method of instruction based on AT. Their model benefited from the cooperative learning principles (Johnson & Johnson, 1990) according to which different roles are defined and divided among the group members. The results of their qualitative research indicated that the ability of the learners to read for meaning increased at the end of the study.

Interestingly not much is found regarding the impact of AT on EFL/ESL reading comprehension, except for a few studies. For example, Turk (2006)

integrated individual and social reading activities based on AT to improve Japanese students' L2 reading comprehension. He found that the integration of cooperative learning, individual tasks, and teacher-fronted classes was well accepted by students since they actively participated in all facets of the course.

In another study, Menendez (2009) examined the effect of participation in Read 180, a teacher-mediated, computer-mediated reading instruction program, on the reading achievement of a group of Hispanic students learning English in Florida. AT was used to account for the mediating structures of READ 180 and the effects of surrounding activity systems on student participation. The results showed that the participants significantly improved their reading achievement. Qualitative findings also highlighted that AT had a major impact on the quality of reading instruction.

Liu (2015), also, explored the intertwined relationship between the role of learning context and Chinese students' English reading approaches through the lens of AT. It was found that a change of learning context from China to the UK not only provoked a transition in students' English reading from learning to read to reading to learn, but also engendered two different activity systems in which different goals, mediating artifacts, and division of labor were involved.

Although sociocultural theory has been extensively documented in L2 reading literature, as far as the researchers know, little attention has been paid to research about the effect of AT on students' reading comprehension in an Iranian EFL context. More specifically, no study has so far been carried out into the students' perception of the efficacy of AT on their reading comprehension.

Perception or the process by which individuals receive and interpret information from the environment might be a predictor of achievement in

Iranian EFL Learners' Perception of the Efficacy of...

language learning (Jahedizadeh, Ghanizadeh, & Ghonsooly, 2016). According to Barkhuizen (1998, p. 102) “once teachers are aware of their students’ perception they can, if necessary, plan and implement alternative activities in their classes”. To Gardner and Macintyre (1993, p. 9), also, “teachers, instructional aids, curricula, and the like clearly have an effect on what is learned and how students react to the experience”. Accordingly, the main purpose of this study was to examine Iranian EFL students’ perception of AT-based reading instruction. To this end, the following questions were raised:

1. Do Iranian EFL learners have positive perception toward the efficacy of AT-based reading comprehension?
2. Are there any statistically significant differences between Iranian EFL learners’ perception toward the mediating elements of AT-based reading comprehension?
3. What affordances do Iranian EFL learners perceive in implementing AT-based reading comprehension?

3. Method

3.1. Participants

The participants of this study included 60 (14 male and 46 female) Iranian EFL students majoring in English translation from two intact classes at Islamic Azad University, Tehran Central Branch. The participants were mostly native speakers of Persian and were between 19 and 24 years of age. In each class, the students were exposed to the same content and method of instruction and had the same instructor. The participants had the *Reading Comprehension III course*, which is usually presented in the third semester of their education.

They attended the class once a week and received 32 sessions of instruction each lasting for 90 minutes.

The participants were selected based on their performance on the Oxford Placement Test (OPT) and the perceptual learning style questionnaire. Based on the OPT results, only those students whose scores fell between one standard deviation above or below the mean were chosen. In addition, the students with negligible scores on group learning style were excluded from the research population.

3.2. Instruments

To conduct the study, the researchers utilized five instruments, each of which is briefly described as follows:

English Language proficiency test. The OPT was administered before the intervention sessions in order to check the homogeneity among the participants concerning their English language proficiency. The test has two main sections, Listening Test and Grammar Test, each with 100 items.

Perceptual learning style questionnaire. Since the instruction was geared to group learning, it was essential to identify the individuals who did not prefer to work in a group. To this end, Reid's (1987) learning style questionnaire was used. Reid classifies perceptual learning styles into six types: visual, auditory, kinesthetic, tactile, group, and individual. The questionnaire is composed of thirty statements covering these six preferences on a five-point Likert scale. The reliability of the questionnaire was calculated through Cronbach's Alpha formula, which came out to be 0.88.

Reading passages. The main reading materials, 12 expository authentic passages, were taken from electronic magazines and the Internet pages. Each passage had a specific rhetorical organization including classification,

Iranian EFL Learners' Perception of the Efficacy of...

comparison/contrast, cause-effect, or problem-solution, which was chosen based on Armbruster's (as cited in Sharp, 2004) classification of rhetorical organizations in expository texts. All passages had approximately the same level of difficulty computed through Fry's Readability Index (13 on the average) and were roughly equal in number of words (1400 words on the average). The passages also covered a variety of different subject areas including digital age, psychology, art, environment, health, etc. Moreover, they were piloted with students similar to the main participants to validate their appropriateness in terms of the level of difficulty, length, and topic of interest.

AT survey questionnaire. In order to examine the students' perception with respect to the mediating role of AT elements, a survey questionnaire was constructed by the researchers and validated in the piloting phase of the study (See below).

Open-ended questionnaire. An open-ended questionnaire was designed to determine the participants' perceived affordances of AT elements. According to Gillham (as cited in Dornyei, 2003), open-ended questionnaires can motivate the respondents to give more straight answers and enable the researcher to explore the unknown and the unexpected responses.

The questionnaire consisted of five questions, for which the participants wrote their responses in a few sentences in either English or Persian. They were asked to reflect on their overall perception about the treatment, such as whether they enjoyed the class, or what they learned from the class.

Semi-structured focus group interview. In order to elicit more detailed information from the participants and to cross-validate the data obtained from the open-ended questionnaire, a semi-structured focus-group interview was conducted with five randomly-selected groups (20 students) after the treatment.

According to Denscombe (2007), “focus group consists of a small group of people, usually between six and nine in number, who are brought together by a trained moderator (the researcher) to explore attitudes and perceptions, feelings and ideas about a topic” (p.115). To Dornyei (2007), it is certainly an economical way to gather a relatively large amount of qualitative data. According to Casey and Krueger (2000), focus group interview provides “a more natural environment than that of individual interview because participants are influencing and influenced by others- just as they are in real life.” (p.11)

Each group was interviewed for approximately 15 minutes by the first researcher who asked the questions in English but the participants were left with an alternative to give the answers in either English or Persian. Each group’s interview was separately audio-recorded to be carefully analyzed afterward.

3.3. Data Collection Procedures

The present study was carried out in two distinct phases; a pilot study and a main study. Both phases are briefly explained in the subsequent sections.

Pilot study. Before the main study, a pilot study was carried out in order to prepare and pilot the AT-based closed-ended questionnaire. The questionnaire was designed and constructed based on the criteria proposed by Dornyei (2003). To do so, the following procedures were taken into consideration: 1) defining AT elements, 2) drawing up an item pool to develop the questionnaire, 3) receiving feedback from experts, and 4) piloting of the questionnaire.

Iranian EFL Learners' Perception of the Efficacy of...

A review of the literature on sociocultural reading, strategy-based reading instruction, cooperative learning, and affordance theory, provided insights into the definition of each element (Figure 2).

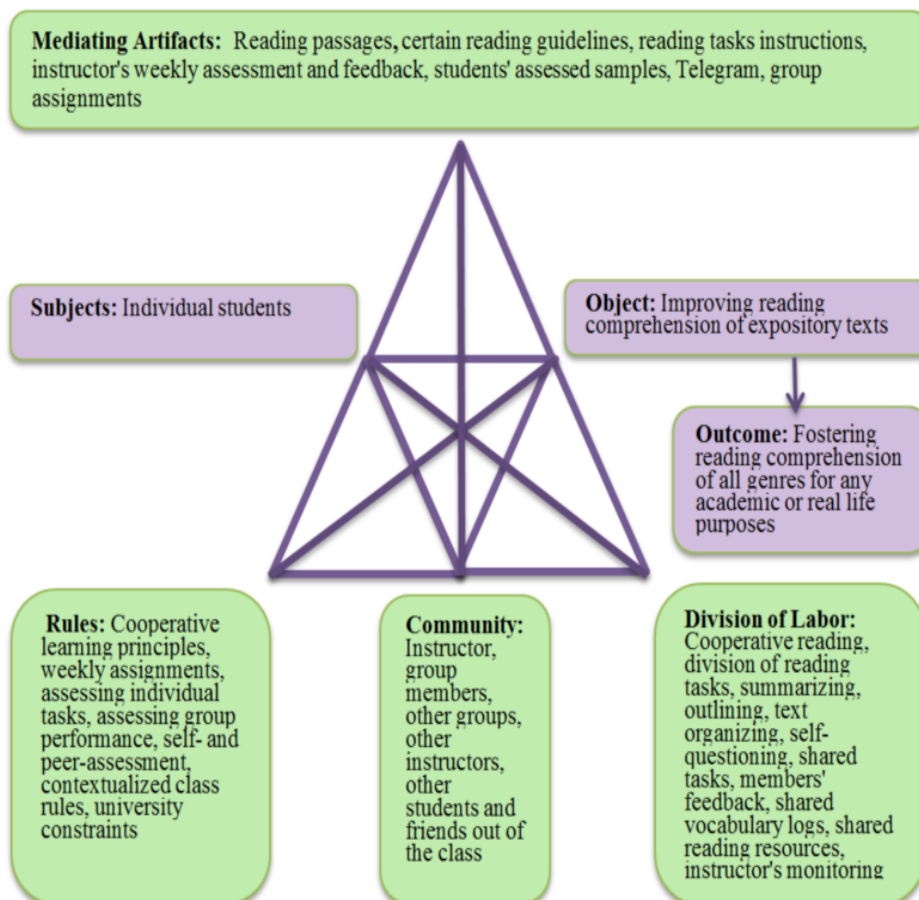


Figure 2. The Structure of an EFL Reading Comprehension Activity System

An initial 38-item questionnaire was drafted and modified several times based on the defined elements. The questionnaire was a five-point Likert scale ranging from 1 to 5 (1=not at all, 2=not really, 3=to some extent, 4=quite a lot, and 5=very much). Having asked eight participants of the pilot study to

read the items and provide feedback on the face validity, the researchers made a number of modifications in terms of the format accordingly.

Four English instructors experienced in teaching reading participated in the pilot study as experts to judge the content relevance and representativeness of the questionnaire items. Based on their feedback, three items were excluded from the questionnaire and a few numbers were modified. The final version included 35 statements addressing the mediating elements of AT-based reading comprehension (Table 1).

Table 1. *Elements of AT Survey Questionnaire*

Elements	Number of items	Items
Mediating Artifacts	12	1-12
Rules	5	13-17
Community	5	18-22
Division of labor	13	23-35

As the next step, the questionnaire was administered to a group of 43 students who were similar to the target population. The questionnaire took the participant about 15 minutes to complete. Finally, Cronbach's Alpha formula was computed to ensure the internal consistency of the questionnaire. The reliability estimated was .77, which is an acceptable value. Furthermore, no items were deleted based on the results of item total statistics including Cronbach's alpha if item deleted.

It is noteworthy that the AT questionnaire is a kind of survey questionnaire which asks "questions about people's beliefs, opinions, characteristics, and behavior" (Ary, Jacobs, Sorensen, and Walker, 2014, p. 399). Ary et al. refer to expert judge as an acceptable way to ensure the construct validity of such questionnaires. Therefore, no more statistical approaches were needed to validate the instrument.

Iranian EFL Learners' Perception of the Efficacy of...

Main study. Data were collected in regular class time and over a period of 15 weeks. Each step is briefly explained below.

Administrating the proficiency test and the learning style questionnaire. Before the intervention, The OPT and also the learning style questionnaire were administered to all students to ensure their homogeneity of English language proficiency and also to select the students with favorable preference for group work activities.

Training the group learning and the reading tasks. To define the element of division of labor in the current study, the researchers benefited from the principles of cooperative learning (CL), including positive interdependence, individual accountability, face-to-face promotive interaction, social skills, and group processing (Johnson & Jonson, 1990). Two weeks were allocated to train the students regarding what CL is and to what extent it differs from collaboration and other group work activities. After introducing CL, the instructor, the first author of this article, trained the students in how to act and learn in a group. The students were then asked to form some four-member groups based on their own preference.

Having provided an overall picture of the group reading, the instructor modeled the four reading tasks including summarizing, outlining, text organizing, and question generating, which were supposed to be divided among the group members as homework assignments. These four tasks are among the most effective reading comprehension strategies which have been empirically supported in the literature (Grabe, 2009).

Implementing the reading activity system. Having been trained how to read in a group in the class and how to divide the reading tasks amongst the group-members, the participants received the treatment based on AT, similar to the pilot study, for 12 weeks.

In each session, first the participants had a whole class pre-reading discussion to activate their background knowledge about the topic. Then, they read the passage in their own group to clarify the unclear points and find the gist. Finally, they had a post-reading discussion to evaluate the passage. The instructor monitored each group separately by asking questions about the main idea, paragraph organization, and any complicated word or sentence. She also gave answers to the groups' questions.

After reading the passage within the group, the participants divided interchangeably the four reading tasks among themselves to perform their cooperative roles. In other words, each week a group member did a different task, shared it with other members, and received their feedback. The participants were required to submit the reading assigned tasks the following session. The instructor weekly assessed each student's performance by providing written feedback on his/her assignments and then shared good samples through Telegram. As a free mobile messaging application, Telegram is very popular among Iranian users. For this reason, the students were highly familiar with it and no training was required in the functionality of the application. Furthermore, the instructor weekly showed a few weak samples on the screen via a video projector to offer further explanation for the ratings and comments.

Administrating the questionnaires and conducting the focus group interview. After the intervention, the students completed both questionnaires and the instructor randomly invited five groups for the focus group interview.

4. Results

4.1. Quantitative Results

The data were analyzed by employing both quantitative and qualitative techniques. The students' perception concerning the efficacy of AT-based reading comprehension was determined by the post-intervention survey questionnaire. The internal consistency of the questionnaire was calculated through Cronbach's Alpha formula, which came out to be 0.86 (Table 2).

Table 2. Reliability Statistics of the AT-based Survey Questionnaire

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.860	35

In order to answer the first research question, descriptive statistics of the participants' responses to the AT-based survey questionnaire were computed (Table 3). The mean scores of the participants on the questionnaire ranged from 35 to 175, which demonstrate a comprehensive picture of the participants' perception.

Table 3. Descriptive Statistics

Mean	Variance	Std. Deviation	N of Items
119.2582	220.428	14.84682	35

The results represent that Iranian EFL learners showed moderate to positive perception toward the AT-based EFL reading comprehension (M=119, SD=14.84). Hence, the answer to the first research question cannot be rejected.

In order to answer the second research question, one-way repeated measures ANOVA was run to determine whether there were any statistically

significant differences amongst the students' perception toward the four elements of AT (Table 4).

Table 4. Descriptive Statistics of the Perception of AT-based Reading Comprehension

	Mean	Std. Deviation	N
Mediating artifacts	3.5717	.35103	60
Rules	3.4573	.67002	60
Community	2.6815	.47753	60
Division of labor	3.4624	.56585	60

The results of multivariate tests (Table 5) indicate that there was a statistically significant difference between the students' perception of AT elements, Wilks' Lambda = .340, $F(3, 57) = 36.925$, $p < .001$, multivariate partial squared = .660, which suggests a very large effect size ($> .14$).

Table 5. Multivariate Tests for AT Elements

	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
AT Elements	Pillai's Trace	.660	36.925 ^a	3.000	57.000	.000	.660
	Wilks' Lambda	.340	36.925 ^a	3.000	57.000	.000	.660
	Hotelling's Trace	1.943	36.925 ^a	3.000	57.000	.000	.660
	Roy's Largest Root	1.943	36.925 ^a	3.000	57.000	.000	.660

a. Exact statistic b. Design: Intercept
 Within Subjects Design: element

Iranian EFL Learners' Perception of the Efficacy of...

Table 6. Pairwise Comparison of AT Elements

Measure: MEASURE_1

(I) element	(J) element	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
1	2	.124	.080	.758	-.095	.343
	3	.871*	.082	.000	.647	1.095
	4	.099	.064	.773	-.076	.274
2	1	-.124	.080	.758	-.343	.095
	3	.747*	.106	.000	.457	1.036
	4	-.026	.074	1.000	-.227	.176
3	1	-.871*	.082	.000	-1.095	-.647
	2	-.747*	.106	.000	-1.036	-.457
	4	-.772*	.091	.000	-1.020	-.524
4	1	-.099	.064	.773	-.274	.076
	2	.026	.074	1.000	-.176	.227
	3	.772*	.091	.000	.524	1.020

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Furthermore, according to the results of the Pairwise Comparisons (Table 6), the significant difference was only found between the students' perception toward the element of community (element 3) and the other elements. It means that the students perceived this element substantially different from the other elements. To put it another way, the students perceived the community as the least decisive factor in their reading comprehension.

4.2. Qualitative Results

The last question of the study concerned the affordances the learners perceived in implementing AT-based reading comprehension. For answering this question, the data were collected via an open-ended questionnaire and a semi-structured focus group interview. In order to analyze the data, first the most frequent responses given to the open-ended questionnaire were carefully classified into some certain categories. Then the interview responses were transcribed or translated into English and were finally coded and analyzed.

Data analysis revealed that the students perceived the affordances of AT-based reading comprehension in terms of six general categories, including: 1) group reading, 2) reading assignments, 3) instructor's role, 4) course materials, 5) reading outcomes, and 6) general outcomes.

1. Group reading. The first main category extracted from the students' responses was group reading that was perceived highly effective by majority of the students (93%). Their perceptions of the group reading are listed as follows:

- Fun, relaxed, and friendly classroom atmosphere (91%)
- Enjoyable, interesting, and motivating way of learning (83%)
- Cooperation and division of labor (80%)
- Active involvement (77%)
- Group discussion and interaction (73%)
- Novel method of teaching and a new learning experience (70%)

For example, when being asked whether they enjoyed the class, some students gave the following responses: *“I really enjoyed the class because of the group reading and the class atmosphere which was very friendly”*; *“I think the class was very enjoyable and useful because we had fun , and also we learned how to improve*

Iranian EFL Learners' Perception of the Efficacy of...

our reading skills”; “The class was not boring because we were very active in the class”; “I liked the cooperation that we had for reading. Each member did a different task and all of us helped one another to comprehend the texts.”

However, some students were dissatisfied with group reading which made the class noisy. In addition, a few students (7%) preferred a teacher-centered class compatible with their previous experiences. In one excerpt it was mentioned:

I don't hate group work. But, I think in reading classes the teacher should read the text aloud and paraphrase the difficult parts. I also prefer to read the text at home and check any new vocabulary items and then discuss it in class to comprehend the text better.

2. Reading assignments. The second most favorable part of the intervention perceived by most students (86%) was the assigned reading tasks. The students asserted that doing the assignments was the driving force behind careful learning. *“I think my reading comprehension was improved by doing the assignments which forced me to read carefully and analyze the texts,”* said one student. They also found the assignments innovative and appealing. One student commented: *“Except the summary task, other tasks were new to me. It was interesting to perform a different task each week.”* However, another student noted, *“It took my time a lot to do a perfect assignment.”*

3. Instructor's role. Notable in many students' responses (71%), was the instructor's leading role in the class. The students appreciated the instructor's friendliness, kindness, and patience. It is evident in the following excerpts: *“I loved the teacher's friendly behavior. She made small talk with each group that was motivating”; “She cared about all of the members very friendly”; “I liked the class because of a kind teacher”; “The teacher was very patient with us.”*

Another positive perception pertinent to the instructor's role was her weekly assessment and feedback on the students' assignments and her monitoring of each group performance in class. For instance, some students mentioned: *"The teacher was serious about assessing our assignments every week"; "I liked the teacher because she helped us a lot and answered our questions"; "We had to read the texts in our groups because the teacher checked all groups and asked many questions."*

4. **Course materials.** The students perceived different affordances in using course materials. For example, many students (78%) found reading passages useful. Examples of the students' responses are as follows: *"The texts helped me to improve my reading comprehension"; "In the previous reading classes, I could not comprehend the IELTS reading passages very well, but now I think I can, because we read more difficult texts in this class."* Unseen authentic texts each with a new and different topic were also motivating for some students. Moreover, they asserted that AT-based reading instruction provided them with the opportunity to read several texts, main and supplementary, compared to the previous semesters with limited reading materials. Yet, some constraints were identified in reading the passages. For instance, some pointed out: *"The texts were long and difficult to comprehend"; "I did not like some of the texts"; "The passages seemed too technical"; "It was better to use a coursebook."*

Majority of the students (83%) had also favorable perception toward the use of Telegram, through which some task descriptions, several templates, and supplementary texts were shared by both the instructor and the students. It was also used by the instructor to share some students' assessed samples with the class. While some students noted the effectiveness of Telegram in doing the assignments, a few others did not notice its importance. The following excerpts

demonstrate different perceptions of Telegram: *"I tried hard to do a better assignment to be shared through telegram. It was exciting for me to see my own work through the telegram group"*, *"I only checked the assessed samples to see the teacher's comments"*; *"I did not pay attention to the telegram group."*

In addition, positive perception of the visual aids was observed in majority of the students' (85%) responses. During the treatment, all groups were sometimes assigned to find some pictures related to the text' topic. Some of their findings were then presented via a video projector in class or shared through Telegram. It was an attempt to compensate for the visual appearance of the texts, each of which contained only one black and white picture.

Moreover, these group assignments not only brought enjoyment but also broadened the students' understanding of the text's content. Some of the excerpts are as follows: *"The most exciting part of the course was presenting the photos in class"*, *"It is very interesting to use pictures in a reading class which is usually boring"*; *"It was better to use visual materials in class each week because they were motivating"*; *"I think video projector is a useful device to be used in all classes but unfortunately teachers don't use them a lot."*

5. Reading outcomes. When being asked whether their reading comprehension was improved in their opinion, a large number of students (88%) gave positive responses and referred to different outcomes including:

- Understanding the main ideas more easily (97%)
- Reading faster (89%)
- Understanding text and/or paragraph structure (81%)
- Learning new vocabularies (79%)
- Inferencing (63%)
- Using guessing strategies (60%)
- Evaluating a text (55%)

Representative of their responses are: *“In the past I had difficulty with finding the main ideas but now I find them easily”, “I can guess the meaning of unfamiliar words and identify the function of a text or a paragraph. It is a great improvement.”; “It was difficult but I think I learned how to infer indirect information from the passages.”*

6. **General learning outcomes.** Although the main goal of the study was to help EFL learners foster their reading comprehension through AT-based reading instruction and determine their perception in this respect, the students perceived some other affordances not in compliance with the course outcome. In other words, AT-reading comprehension offered other learning opportunities which were perceived by some of the students.

Almost all students (94%) agreed that their interpersonal and communication skills were successfully developed during the semester. Some representative extractions are: *“We learned how to communicate with each other and were ready to accept different responsibilities”; “We showed respect for the group members’ ideas”; “We learned that we were responsible for our friends’ learning too”; “We encouraged each other to perform our cooperative roles.”*

Moreover, some students (35%) expressed that their autonomous learning or in their own words *“self-learning”* was improved. *“I liked the class because we learned many things gradually by ourselves,”* said one student. Another student pointed out *“Doing the assignments forced me to search for more task descriptions and templates, which made me a more independent learner.”* One student, still, commented:

I don't know whether it is a weakness or strength, but we were responsible for our own learning. There was no direct teaching. We used

Iranian EFL Learners' Perception of the Efficacy of...

the teacher's feedback to comprehend the texts and do the assignments. In previous classes, we waited for the teacher to explain everything but in this class we relied on our own abilities.

In a few cases (28%), the students perceived the affordance of self-questioning task with regard to their performance on reading comprehension tests. It is noticeable in the following excerpts: "*I became familiar with inferential questions, which helped me do well on the reading tests*"; "*To form better questions, I checked several reading comprehension tests and became familiar with different test questions.*"

A few students (23%) also asserted that AT-based reading instruction gave them a chance to practice the writing skill particularly when the text's rhetorical organization was identical to that of the paragraph, they were assigned to write in their paragraph writing course. Finally, a small number of those interviewed reported that they learned how to read long and difficult texts in a rather noisy environment that demanded deep concentration. "*We learned how to concentrate on long texts in a noisy class,*" mentioned one student. "*I learned how to read in every situation. Now I can read and comprehend any text with deep concentration,*" said another one.

5. Discussion and Conclusion

This study aimed at exploring Iranian EFL learners' perception toward AT-based reading comprehension. The results of the quantitative analyses revealed that the students had moderate to positive perception toward AT integrated into EFL reading instruction. The findings, therefore, offer indisputable evidence for implementing AT in EFL reading classes by providing learners with suitable artifacts, certain rules, a supportive community, and variety of

group-based activities to achieve a satisfactory outcome. The results also indicated that there was a marked difference between the students' perception toward the mediating elements of AT. While the students perceived mediating artifacts, rules, and division of labor moderate to positive, they rated the element of community moderate to negative.

To the best of the researchers' knowledge, there is no empirical research on the learners' perception toward the efficacy of AT-based reading comprehension. The only study found on this ground has been conducted by Portnov-Neeman and Barak (2013) who used AT as the conceptual framework for exploring students' perception about how learning in school is affected by the elements of AT. The findings showed that students positively evaluated the elements of object and division of labor, but they favored less the influence of tools, rules and community on learning.

Furthermore, the results of the qualitative analyses demonstrated that the students perceived several affordances concerning the mediating role of each AT element. With regard to the mediating artifacts, the students perceived the affordances of authentic texts, Telegram and visual aids more favorable than other course materials. While some students acknowledged the positive impact of the texts on their reading comprehension and motivation, others evaluated them as constraints for effective reading. According to Kilickaya (2004), using authentic materials in language classrooms can be demanding. In contrary, the literature on this field abounds with examples of studies reporting the positive effect of authentic texts on learners' reading comprehension (e.g., Bacon & Finneman, 1990; Berardo, 2006), and motivation (e.g., Guariento & Morley, 2001). Moreover, the students' positive perception of Telegram aligns with the findings of other studies that have shown students' positive perception of using smart phones in English learning (e.g., White & Mills, 2014). However,

Iranian EFL Learners' Perception of the Efficacy of...

Telegram remained unnoticed by a few students in this study. In addition, although some studies have suggested a prominent role for visual aids in enhancing EFL learners' reading comprehension (e.g., Moore & Scevak, 1997), in this study the students perceived the impact of visual materials on their motivation and enjoyment but not directly on their reading performance. There is ample support for the claim that visual materials should be placed at the core of learners' motivation (see, e.g., Hadfield & Dornyei, 2013).

Concerning the rules, the results showed that the students found CL rules easy to follow and perceived doing the weekly assignments highly effective. Although a few students commented that the assignments were difficult and time-consuming to do, most students perceived them the fruitful part of the intervention. They also favored the evaluation criteria that placed the emphasis on both their individual task performance and group work performance.

Remarkable with respect to the results, was the moderate to negative perception of the community element that included the instructor, group members, classmates, other instructors, and other students and friends out of the class. This finding maintains that the students did not provide a focus for the community. Unlike such a general view, the students held favorable perception toward the instructor. They appreciated the instructor in respect of her instructional activities such as giving feedback on the assignments and her monitoring of group performance as well as her amiable behavior. It might, accordingly, be implied that even in a student-centered class, Iranian EFL students still perceive the teacher as the main source of knowledge.

Besides, according to the qualitative results, division of labor was the most productive part of AT-based reading comprehension. In this study, the element of division of labor benefited from CL to be implemented. There is sufficient research on the effect of CL on learners' reading comprehension (e.g., Jalilifar,

2010; Liao & Oescher, 2009; Pan & Wu, 2013; Suh, 2009). The students perceived group reading an enjoyable and interesting way of learning and appreciated the classroom atmosphere. They took pleasure in cooperating with each other on reading the passages. Such finding is in line with the results of other studies bearing out the view that CL has positive effect on students' attitudes (e.g., Takallou & Veisi, 2013; Wichadee, 2005) and motivation to reading (e.g., Guthrie et al., 2004).

In this study, hardly did any participant indicate negative perception toward the group reading. One reason for this is the fact that those students with negative attitude toward group learning were excluded from the study. Another reason behind such a positive view is probably related to the training sessions, during which the students were informed about the pros and cons of CL. Students were then assigned to find a few relevant empirical studies into the effect of CL on EFL reading comprehension and discuss their findings in class. According to Hillyard, Gillespie, and Littig (2010), students' attitude toward group learning depends on their perception of the value of peer scaffolding, their previous experiences, and the teacher's clarity in explaining the purpose of group work. In one study, Tanaka and Sanchez (2016) found that encouraging students to participate in CL activities with minimal guidance was less effective in terms of achieving better results.

Finally, qualitative results indicated that the students perceived several outcomes of AT-based reading comprehension such as understanding the main ideas more easily, understanding text and paragraph structures, using guessing strategies, reading for implied meaning, etc. The findings also showed that the students perceived indirect affordances in using each element. For example, self-learning, better performance on reading comprehension tests, and writing achievement were the perceived affordances of doing the assignments

Iranian EFL Learners' Perception of the Efficacy of...

concerning the element of rules. Improving social skills was the perceived affordance of group reading-- division of labor. Great concentration was also the perceived affordance of reading passages--artifacts.

To Van Lier (2004, p. 91), "affordance is action potential, and it emerges as we interact with the physical and social world" (p. 92). In this study, affordances were perceived in two ways: They were either direct affordances of AT elements consistent with the object (improving reading comprehension), or they were indirect affordances perceived as the result of the interaction between the subjects and the AT elements. In other words, direct affordances were perceived effective mediators to improve learners' reading comprehension, whereas indirect affordances were perceived with reference to other unexpected outcomes.

To Albrechtsen, Andersen, Bødker, and Pejtersen (2001), AT and affordance theory share the basic idea that perception is not afferent. Rather, only through acting do people perceive their environment. According to AT, the subject's perception is an effect of his/her learning process in the activity, and, therefore, "affordances are only affordances as long as they are within the subject's zone of proximal development" (P. 16). Hence, each activity system is a potential set of affordances that might be perceived positively, remain unnoticed, or even act as constraints for learning. In the terminology of AT, these constraints are unresolved contradictions which emerge during the activity and hinder the expanding learning cycle (Engeström, 1987, 2001).

Although the results indicated that the students were in favor with AT-based reading comprehension, the findings should be treated with the utmost caution, for the efficacy of AT integrated to any language instruction depends on how the elements of activity system are defined. In this study, for instance, the participants were at upper-intermediate level of English language

proficiency, authentic texts were used as the fundamental artifacts, and the rules were defined based on CL principles. Moreover, the study addressed the students' perception of AT-based reading comprehension. Hence, exploring the effect of AT on learners' reading comprehension needs further investigation.

AT is potentially an eclectic method of instruction furnishing EFL students with prolific learning affordances. A diversity of learning opportunities is welcomed in AT if they are presented properly to mediate between the subject and the object. From an AT standpoint, teachers should enrich their reading materials by using various texts from different sources. Supplementary reading materials can afford students a chance to improve their reading comprehension through extensive study. Teachers should also benefit from visual aids and technology to increase students' motivation for reading. Besides, AT-based reading comprehension shows how both individual and collective activities are equally engaged in an EFL reading class. Designing integrated reading-writing tasks such as summarizing, outlining, drawing graphic organizers, and self-questioning can also be beneficial for students to deepen their understanding of the texts. Teachers can also design some group work activities to actively involve students in class through interaction and negotiation. To this end, students should be informed about the benefits of group learning and be trained to work rigorously within a group. AT is still in its infancy in Iranian EFL context and needs a large body of research to corroborate its efficacy on English learning.

References

- Albrechtsen, H., Andersen, H. H., Bødker, S., & Pejtersen, A. M. (2001). *Affordances in activity theory and cognitive systems engineering*. Retrieved from <http://www.orbit.dtu.dk>
- Alderson, J. C. (2000). *Assessing reading*. Cambridge: CUP.
- Ary, D., Jacobs, L. C., Sorensen, C., & Walker, D. A. (2014). *Introduction to research in education* (9thed.). Belmont, CA: Wadsworth Cengage Learning.
- Bacon, S. M., & Finneman, M. D. (1990). A study of the attitudes, motives, and strategies of university foreign language students and their disposition to authentic oral and written input. *The Modern Language Journal*, 74(4), 459-473. doi:10.1111/j.1540-4781.1990.tb05338.x
- Barkhuizen, G. P. (1998). Discovering learners' perceptions of ESL classroom teaching/learning activities in a South African context. *TESOL quarterly*, 85-108.
- Berardo, S. (2006). The use of authentic materials in the teaching of reading. *The Reading Matrix*, 6(2), 60-69.
- Casey, M.A. & Kueger, R.A. (2000). Focus groups: A practical guide for applied research. (3rded.). Thousand Oaks, CA: Sage.
- Cole, M., & Engeström, Y. (1993). A cultural-historical interpretation of distributed cognition. In G. Salomon (Ed.), *Distribute cognition: Psychological and educational considerations* (pp. 1-46). Cambridge: CUP.
- Commander, M., de Guerrero, M. C., & Rico, P. (2013). Reading as a social interactive process: The impact of shadow-reading in L2 classrooms. *Reading in a Foreign Language*, 25(2), 170-191.
- Denscombe, M. (2007). The good research guide for small-scale social research projects. (3rded.). New York: McGraw-Hill.

- Dörnyei, Z. (2003). *Questionnaires in second language research: Construction, administration, and processing*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: OUP.
- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.
- Engeström, Y. (1993). Developmental studies of work as a test bench of activity theory: The case of primary care medical practice. In S. Chaiklin & J. Lave (Eds.), *Understanding practice: Perspectives on activity and context* (pp. 64-103). Cambridge: CUP.
- Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133-156. doi: 10.1080/13639080123238
- Firth, A., & Wagner, J. (1997). On discourse, communication, and (some) fundamental concepts in SLA research. *Modern Language Journal*, 81(3), 285-300. doi:10.1111/j.1540-4781.1997.tb05480.x
- Gardner, R. C., & MacIntyre, P. D. (1993). A student's contributions to second-language learning. Part II: Affective variables. *Language teaching*, 26(1), 1-11.
- Grabe, W. (1991). Current developments in second-language reading research. *TESOL Quarterly*, 25(3), 375-406. doi:10.2307/3586977
- Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Cambridge: CUP.
- Guariento, W., & J. Morley. (2001). Text and task authenticity in the EFL classroom. *ELT Journal*, 55(4), 347-353.

Iranian EFL Learners' Perception of the Efficacy of...

- Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H., & Tonks, S. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction. *Journal of Educational Psychology, 96*(3), 403-423. doi:10.1037/0022-0663.96.3.403
- Hadfield, J., & Dörnyei, Z. (2013). *Motivating learning*. Harlow: Longman.
- Hillyard, C., Gillespie, D., & Littig, P. (2010). University students' attitudes about learning in small groups after frequent participation. *Active Learning in Higher Education, 11*(1), 9–20.
- Jahedizadeh, S., Ghanizadeh, A., & Ghonsooly, B. (2016). The role of EFL learners' demotivation, perceptions of classroom activities, and mastery goal in predicting their language achievement and burnout. *Asian-Pacific Journal of Second and Foreign Language Education, 16*(1), 1-17. doi: 10.1186/s40862-016-0021-8
- Jalilifar, A. (2010). The effect of cooperative learning techniques on college students reading comprehension. *System, 38*, 96-108. doi:10.1016/2009.12.009
- Johnson, D. W., & Johnson, R. T. (1990). What is cooperative learning? In M. Brubacher, R. Payne, & K. Rickett (Eds.), *Perspectives on small group learning: Theory & practice* (pp. 68-79). Ontario: Rubicon Publishing Inc.
- Kilickaya, F. (2004). Authentic materials and cultural content in EFL classrooms. *The Internet TESL Journal, 10*(7), 1-6.
- Lantolf, J. (2000). Second language learning as a mediated process. *Language Teaching, 33*(2), 79- 96. doi: 10.1017/s0261444800015329
- Leont'ev, A. N. (1978). *Activity, consciousness, and personality*. Englewood Cliffs, NJ: Prentice-Hall.

- Liao, H. C., & Oescher, J. (2009). Does cooperative learning really enhance self-efficacy and task value of English grammar learners? *Journal of Education and Psychology, 32*(3), 24-54.
- Liu, J. (2015). Reading transition in Chinese international students: Through the lens of activity system theory. *Journal of English for Academic Purposes, 17*, 1-11. doi:10.1016/j.jeap.2014.11.004
- Menendez, R. M. (2009). *Cultural-historical activity perspectives on the effects of participation in teacher-mediated, computer-mediated reading instruction* (Doctoral dissertation). Retrieved from http://scholarlyrepository.miami.edu/oa_dissertations
- Moore, P. J., & Scevak, J. J. (1997). Learning from texts and visual aids: A developmental perspective. *Journal of Research in Reading, 20*(3), 205-223.
- Pan, C., & Wu, H. (2013). The cooperative learning effects on English reading comprehension and learning motivation of EFL freshmen. *English Language Teaching, 6*(5), 13-27.
- Portnov-Neeman, Y., & Barak, M. (2013). Exploring students' perceptions about learning in school: An activity theory based study. *Journal of Education and Learning, 2*(3), 9-25. doi:10.5539/jel.v2n3p9
- Prekert, F. (2010). Tracing the roots of activity systems theory: An analysis of the concept of mediation. *Theory & Psychology, 20*(5), 641-665. doi: 10.1177/0959354310375329
- Reid, J. (1987). The learning style preferences of ESL students. *TESOL Quarterly, 21*, 87-110.
- Sharp, A. (2004). Strategies and predilections in reading expository text: The importance of text patterns. *RELC journal, 35*(3), 329-349. doi: 10.1177/0033688205052145

Iranian EFL Learners' Perception of the Efficacy of...

- Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16(1), 32-71. doi:10.2307/747348
- Suh, J. S. (2009). Reading concepts in cooperative work by EFL college students. *English Teaching*, 64(2), 151-171.
- Takallou, F., & Veisi, S. (2013). Implementing cooperative learning in a reading class. *Report and Opinion*, 5(1), 16-23.
- Tanaka, M., & Sanchez, E. (2016). Students' perceptions of reading through peer questioning in cooperative. *TESL-EJ*, 19(4), 1-16.
- Thorne, S. L. (2005). Epistemology, politics, and ethics in sociocultural theory. *The Modern Language Journal*, 89(3), 393-409. doi:10.1111/j.1540-4781.2005.00313.x
- Turk, D. (2006). *Improving the Process? A study of learner autonomy, interaction and technology-enhanced language-learning environments* (Doctoral dissertation). Retrieved from <http://www.canberra.edu.au>
- Urquhart, A. H., & Weir, C. J. (1998). *Reading in a second language: Process, product, and practice*. NY: Longman.
- Van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective*. Boston: Dordrecht.
- Wheeler, L. (2004). *Theorizing the individual in an activity system*. Retrieved from <http://www.researchgate.net>
- White, J., & Mills, D. (2014). Examining attitudes towards and usage of smartphone technology among Japanese university students studying EFL. *CALL-EJ*, 15(2), 1-15.
- Wichadee, S. (2005). The effects of cooperative learning on English reading skill and attitudes of the first-year students at Bangkok University. *BU Academic Review*, 4(2), 22-31.

Zoghi, M., Mustapha, R., & Maasum, T. N. R. M. (2010). Collaborative strategic reading with university EFL learners. *Journal of College Reading and Learning, 41*(1), 67-94. doi:10.1080/10790195.2010.10850336