

# The Effect of Group Dynamics-Oriented Instruction on Developing Iranian EFL Learners' Speaking Ability and Willingness to Communicate

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## Abstract

The study investigated how group-dynamics instruction techniques of adaptable nature can be to the benefit of EFL (English as a Foreign Language) learners so as to develop and improve their willingness- to- communicate and speaking- ability in the long run. After analyzing the data via ANCOVA and EFA, the researcher selected 108 young Iranian male and female EFL learners in a language school in Tehran by means of convenient sampling technique. This investigation shows how EFL learners reacted to Group-Dynamics Oriented Instruction (GDOI). Later, the researchers instructed speaking tasks along with improving the learner's willingness to communicate. TOEFL PBT Test was run among participants for homogeneity purposes, and then the researchers used two parallel speaking section of PET test along with WTC questionnaire before and after the treatment process. The findings of the study bore witness to hypotheses of the study, indicating that GDOI was reliably effective in improving speaking ability and uplifting willingness to communicate. In the same line of analysis, the researcher proved that GDOI has improved EFL learner's willingness to communicate since GDOI provoked and triggered energy, interest, and inclination to partake in discussions in learners. As its effects on speaking ability were concerned, the results were interpreted as showing that GDOI would exert changes to L2 learners' conceptual and psychological predispositions that, in return, would determine the strategies and behaviors the learners employ to address the challenges of L2 learning.

**Keywords:** group dynamics- oriented instruction, evaluation, speaking ability, willingness to communicate, speaking assessment rubrics, language proficiency

## 1. Introduction

### 1.1 The Problem

In teaching English as a Second/Foreign language, the term Group Dynamics-Oriented Instruction (henceforth GDOI) refers to doing classroom activities in groups rather than doing them individualistically. In this respect, the relationship between the students is of prime importance as it can affect their performance (Ushioda, 2003). In terms of classroom management, running class activities by following the rules and norms of GDOI can be of high significance as it can have facilitative influence on the outcomes of learners' activities. Instructors can create a friendlier and a more positive atmosphere in their classes by getting students together in groups as social units. One way round, GDOI plays a vibrant role in running the class since such arrangement creates motivation among the learners. Other way round, GDOI may conceivably reflect the negative issues that are likely to happen as a result of students' togetherness. Put it more simply, relationships do not always go well, and group members may experience conflicts and constant arguments. In such a situation, handling the groups and the whole class can be difficult for the instructor and the course will be intolerable for the learners. Definitely in a class with conflicts among the members, students will lose their motivation (Dornyei & Murphy, 2003).

Inappropriate treatment with students learning English in Iranian EFL contexts has created problems in their willingness to speak their thoughts. Consequently, they have poor performance in speaking; however they feel

that they are strong in this skill. In other words, in English language schools in Iran, most of the tasks related to the speaking sections of the books are done individually or through little group work in classes. Unfortunately, instructors do not involve language learners in as much pair work or group work as possible. This in turn has an adverse effect on the class atmosphere and the learners' willingness to communicate (henceforth WTC), that is to say the less GDOI is, the less willing the learners are to communicate with others in the new language. Definitely in such a situation, language learners will not be able to improve their speaking ability. As Schmuck and Schmuck (2001) noted, "The students of a class are more than a collection of individuals. They form a social system with peers with whom they experience interdependence, interaction, and common goal striving (p. 40)." As mentioned above, the problem is that instructors hardly ever use pair work and group work to let learners communicate what they have learned. Perhaps it is due to the fact that they are not aware of GDOI.

### *1.2 Significance of the Study*

Teaching the English language creates a great contribution to educational curriculum in Iran, therefore special attention is given to it by the educated society. What is self-evident here is that among the four language skills, the productive ones, speaking and writing, are of high importance. However the present study focuses only on the speaking ability. The findings of the present study can provide useful information for program developers, language instructors, and EFL learners. Hopefully, the findings will make the instructors and the learners aware of the importance of learners' learning through interaction with their peers. Consequently this will lead to the learners' WTC and the development and improvement of their speaking ability.

### *1.3 Relevant Scholarship*

To support the learning processes, one might refer to different types of theories at hand. To mention the one, as the focal pillar of this study, Group Dynamics Theory (GDT henceforth) deals with the processes that occur between members of a group in a learning situation. In fact, GDT deals with situations that are capable of creating motivation for learners to experience enhanced learning. Moreover, it casts light on learners' behavior in a social system. The main locus of group dynamics is on pair-work and group-work rather than learning things individually. The theory itself has some major components including the cohesiveness of the group, the norms established for the group, the group leadership style, and the size of the group. Group Cohesiveness is necessary for the development of group dynamics. As stated in Longman Dictionary of Contemporary English, cohesiveness refers to the reasonable connection between the members of a group. The question is, 'How are these logical connections reached?' Ehrman and Dörnyei (1998) noted that this mental logical bond results from perceived similarity and then from mutual acceptance. In other words, if group members notice common interests among themselves, they will feel closer to each other and as a result of this closeness, they will accept each other. The members of a cohesive group are interdependent and they mutually accept each other. These positive feelings play a motivating role in the group success and they encourage the members to actively get involved in group activities (Clément, 1994; Senior, 1997; Hinger, 2006). Not only does cohesiveness affect the members' performance and their level of motivation, but also it prolongs the life of the group. This means that group members who understand and accept each other tend to save their group (Dörnyei & Murphey, 2003).

As mentioned earlier, sense of belonging to a cohesive group has a positive effect on each member of the group. And if members perform well, they will improve the group performance. Therefore, group cohesiveness has direct effect on group performance (Clément 1994). Group performance is also affected by the length of time group members spend with each other. This is to say that the more group members meet each other, the more cohesive the group will be. And as a result of this high cohesiveness, the group will have a better performance (Hinger 2006). Among the many factors that can increase students' motivation, what happens within a group plays a vital role. This is to say that students learn better if the processes going on within their groups are all positive and satisfactory (Chang 2010). Group cohesiveness also provides better chances of learning success since it motivates learners to learn a second language better (Dörnyei & Noels, 1994). Another important point about cohesiveness is that it leads to better performances and consequently pride. This means that group members will feel proud if their group gives a good performance those results from cohesive relationships (Rosh, 2012).

Group norms refer to the rules governing the processes taking place in a group. Groups that are cohesive usually have rules and the members in such groups act according to the rules. How these rules and norms are created is still a matter of dispute. In fact, both the teacher – as an external source – and the group members – as an internal force – establish these norms. The positive point about the group norms is that they can affect the members' behavior positively (Ehrman & Dörnyei, 1998). Group norms should be positive. If they are positive, they motivate learners to give their best performance (Moreland & Levine, 1992). The way teachers lead the groups

in a class plays a vital role in the outcome of the group members' learning. In autocratic leadership style, teacher is the only person who determines what students can do in class. In a democratic style, students pick up the activities they would like to do in class, and in a laissez-faire manner, group members make all the decisions and teachers do not participate (Ehrman & Dörnyei, 1998). The question is which style can be more beneficial and applicable to classroom. Swezey (1994) states that in autographic groups, students may perform better because of the pressure from the instructor, but this effect might be a temporary one. However, in a democratic class, students feel more comfortable and experience a better learning situation that is why this leadership style has a long-term effect. In laissez-faire leadership style, learners might not be motivated enough since they feel lost or they think that they have been left alone (Dörnyei & Malderez, 1999)

Another important issue discussed in GDOI is the size of the group in which students do educational activities. It is important because it directly affects the level of motivation students receive within a group. It is time that we discussed the merits and drawbacks of large groups. In large groups, the chance of creating more useful ideas is higher which can increase creativity. Also, a group large in size means that members have more sources of help to reach their goals (Levine & Moreland, 1990). As for the disadvantages, there are a number of arguments. One possible drawback of large groups is that members may face more disagreements due to different tastes and personal styles. This in turn may prevent group members from reaching a solution or a consensus (Moreland & Levine, 1992). Another argument against making large groups is that members will not get involved in the tasks enough perhaps because of the time limitation (Baron & Kerr, 2003). It seems logical to assume that with so many disadvantages, members in a large group probably develop less motivation to accomplish their tasks.

Willingness to Communicate is referred to as "an individual's general personality orientation towards talking" (McCroskey & Baer, 1985). People tend to get involved in conversations and express their opinions, but this tendency does not always appear. The willingness to communicate may change depending on the time and the situation as Barraclough, R. A., Christophel, D. M. and McCroskey J. C. (1988) explained that this willingness is subject to changes "at any given time in a given context". This means that a learner who is willing to express his or her ideas in a group may not feel comfortable to do so in other groups or in the same group at another time.

WTC is found in L1 and L2, but we should spot the differences between the two. In L1, WTC is higher than that in L2, and the reason for this is that the level of language competence in L1 is higher than the level of competence in L2. According to MacIntyre (1998, p. 546), "It is highly unlikely that WTC in the second language (L2) is a simple manifestation of WTC in the L1." There is another claim that supports this argument. Actually, students often do not have very positive feelings about their language proficiency in the target language and for this, they may experience anxiety while speaking in the target language. However, this negative feeling is less seen while students are speaking in L1.

Group Dynamics Theory (henceforth GDT) emphasizes the use of pair work and group work in classroom setting. It is worthwhile to mention that the journey from individualism to group work is not just for certain classes. In fact, it is for all types of classes including language classes (Storch, 2002). The use of pair work and group work is essential for the success of learning. They create situations for learning the materials and also chances of production for the students. Actually, teachers use such activities because they increase the amount of language input (McGroarty, 1993) as well as output (Long & Porter, 1985).

To examine if WTC could be improved by GDOI via seating arrangements, a researcher carried out a study in Japan. In the study, there were two groups, one with 28 participants and the other with 21. The students were at the beginning level (1st year) of Japanese at a Midwest liberal arts college in Fall Semester 2009 and Spring Semester 2010. They were assigned to sit in a special arrangement so that each of them almost always had a different partner. This seating arrangement gave them the chance to make friendly conversations in an informal setting. The results of the study showed that their L2 proficiency level increased, and they gradually became more independent at initiating conversations in L2.

There are several internal and external factors that can affect learners' speaking performance. For the teachers to help students overcome problems in improving speaking skill, it is necessary to figure out those factors. The factors which come from performance conditions start with time pressure. Learners will improve their speaking ability and present better performances if they face no time limitation. The first factor is pertinent to performance conditions. Learners carry out a speaking activity under different conditions. Performance conditions impact speaking performance and these conditions involve time pressure, planning, the quality of performance, and the amount of support (Nation & Newton, 2009). Students who plan are relatively more successful in language skills particularly speaking. The amount of support students receive from teachers or other sources of help can be a leading factor affecting speaking skill. Standard of performance and amount of support, together with the

affective factors such as motivation, confidence, anxiety, listening ability, and feedback during speaking activities are of great importance in speaking performance.

#### *1.4 Research Questions and Hypotheses*

Based on the background stated earlier, the researcher has come up with the following research questions:

RQ1: Does group dynamics-oriented instruction have any significant effects on the EFL learners' WTC?

RQ2: Does group dynamics-oriented instruction lead to the development of the EFL learners' speaking ability?

On the basis of the above questions, the following hypotheses are formulated:

H01: Group dynamics-oriented instruction does not have any significant effect on the EFL learners' WTC.

H02: Group dynamics-oriented instruction does not necessarily lead to the development of the EFL learners' speaking Ability.

## **2. Method**

### *2.1 Participants*

In the first square, the researcher recruited one hundred sixty (N = 160) students between the age range of 18 and 35 to participate in this study. These young and adult intermediate EFL learners have been randomly selected from amongst thirty classes of intermediate level at Iran Australia English Language Institute in Tehran. The ratio of male to female students has been controlled to produce almost equal number of male and female genders so as to avoid being biased in assessment particularly regarding their ability levels. The participants have been selected from a homogeneous group in terms of age and language backgrounds. The participants were at the age range of 25 to 30, with an average of 27.5. Their learning backgrounds were similar due to the fact that they have been studying English at Iran-Australia language school for almost two and a half years. In order to delete the outliers, the researcher employed ( $\pm 1$  Standard Deviation) or numerically 68% of the participants who took the first test of the study, Preliminary English Test, to guarantee that the learners were homogenous in terms of their language proficiency before any real instruction took place. As indicated earlier in this paper the final number of homogenous participants who took part in the study was 108 male and female EFL learners.

### *2.2 Apparatus and Instruments*

The researcher employed a number of instruments so as to conduct the study. The instruments are as follows:

#### *2.2.1 TOEFL Test (Paper-based)*

Before conducting any treatment, in order to be sure that all the students were homogenous and all were in the intermediate level, the researcher used the structure and vocabulary sections of TOEFL Test (PBT) – 2005 to fulfill this aim. The test originally is comprised of five sections including Listening, Structure and Written expression, vocabulary, reading comprehension, and TWE (Test of Written English). The first and the two last parts were removed from the test as they were beyond the scope of this study. The structure section which measures the ability to recognize language appropriate for standard written English comprised of 40 multiple-choice items. This test was selected because not only it was inexpensive and easy to administer, but also it was a valid and reliable test for evaluating the proficiency levels of non-native English speakers. Therefore the participants' knowledge of grammar was evaluated through the grammar section of the selected TOEFL PBT test.

#### *2.2.2 Preliminary English Test (PET) - Speaking Test*

The Preliminary English Test (PET) by Cambridge – developed in 2010 (including speaking) aimed to collect data on participants' speaking ability together with their willingness to communicate. The participants' speaking were assessed by two trained expert raters on their use of lexical resources, grammatical Range and Accuracy, communicative quality, and their ability to elaborate on a topic based on the speaking rubrics provided by Cambridge ESOL department. Two other Mock PET tests were given to the participants functioning as the pre-test and post-test for the purpose of future comparisons.

#### *2.2.3 WTC Questionnaire*

The Willingness to Communicate Scale (WTC) developed by McCroskey and Richmond (2013) is a 20-item, probability estimate scale. It was used to measure the respondent's predisposition toward approaching or avoiding the initiation of communication. In this study, the researcher used WTC both before and after treatment for the purpose of comparison. The questionnaire consists of three sections, the first section of which requires the participants to answer general questions about themselves - covering age, gender, and, the type of school they

attend (grammar or vocational school). They have also been asked about their language learning background – the number of years spent studying English, their grade from the last school report, and the knowledge of any further foreign language(s). Two sections following this introductory part are related to factors that may affect students' Willingness to Communicate. In the second section, the participants were offered factors that could influence one's Willingness to Communicate in class. Later they were asked to choose five factors based on Likert scale (1 to 5). Additional space for further comments was provided at the very end of this section, leaving students with the opportunity to highlight anything relevant which is not already included. In the third part of the questionnaire, participants were asked to express the level of agreement with statements on a five-point Likert scale. All of the statements were related to the most commonly identified factors influencing WTC in foreign language learners. The factors in question are preparedness, topic, speaking self-confidence, speaker's personality, relationship with the interlocutor, perceived speaking skills of the interlocutor, task type, correction and grading, class atmosphere and embarrassment factor (Barraclough, 1988; MacIntyre, 1998; Gutmann, 2012). The participants were required to answer and fill in the questionnaire in classroom context, in the presence of the respective teachers and the researcher. Further information on the profiles of the research participants have been provided in the body of the thesis.

#### 2.2.4 Rating Rubrics

In this study the rating rubric for evaluating participants' speaking ability was selected from Common European Framework (CEF) descriptors. The CEF descriptors are rich document which prepare a description for independent language use and a communicative proficiency at six levels such as A1, A2, B1, B2, C1, and C2; level A, B, and C respectively refer to basic user, independent user, and advanced user. The aim of this framework is to improve the provision of language education and to promote linguistic and cultural diversity. CEF is a tool for the planning and assessment of language learning so that qualifications can be mutually recognized and policies can be coordinated (Mac Donough, Shaw, & Masuhara, 2013, p. 48).

Moreover, with respect to specific task at certain level of proficiency, CEF indicates what and how well the students should fulfill the activities. Also, according to Council of Europe (2012), CEF is considered as one of the standardized criterion for assessing and rating student's language proficiency. Therefore, in this paper the researcher used CEF speaking criteria to evaluate participants' speaking tasks in classroom and for grading pre-test and post-test the overall speaking criterion of CEF was applied. For CEF scores to be computed easily, they were converted into an ordinal scale ranging from 1 to 6 where the CEF score of A1 was replaced by the score of 1 and the score of C2 by the score of 6.

#### 2.2.5 Study Design

This study is carried out on the basis of quasi-experimental design in assessing the effect of GDOI on developing Iranian EFL learners' speaking ability and willingness to communicate. In this type of design, the participants are divided into two groups - control and experimental groups. By implementing this type of design, it will be possible to investigate the effect of the independent and dependent variables.

Hatch and Farhady (1982) noted that if a study has a control group, random selection is employed, and thirdly, pretest is administered, we can call the study as quasi-experimental. These characteristics alleviate the problems related to external and internal validity we had in pre-experimental designs. However, meeting all the aforementioned characteristics seems quite unlikely in a study. In the present study, because the participant did not randomly assigned to the groups, the student were determined before the beginning of the treatment, so the best design which was conducted for this study was quasi – experimental design.

#### 2.2.6 Procedure

To conduct this study, the researcher designed four stages to go through:

##### Sample Selection

The researcher selected 160 Iranian English language learners of intermediate language proficiency level. In order to identify the students' speaking ability and their willingness to communicate, a Mock PET by Cambridge (only speaking) was administered. Those showing similar performances have been selected to function as the final participants in the study. It is important to mention that before the test administration, the participants will be provided with an explanation of the purpose of the study and assured that the results had no influence on the course outcomes. Students were also be encouraged to ask questions and seek clarification if needed.

#### 2.2.7 Test Administration (pre-test)

A Preliminary English Test (PET) by Cambridge (only speaking) was administered – as the pre-test – to the

students at the beginning of the semester during a regularly scheduled course. The participants' speaking will be investigated on their use of vocabulary, grammar and their ability to elaborate on a topic. This will take place for the purpose of comparison at the end of the semester.

### 2.2.8 Treatment

Having investigated the participants' speaking ability and willingness to communicate, they will be divided into two groups, 54 participants in control group and 54 participants in experimental group. The first group was the control group and the second will be the experimental group. The control group is the group which receives the conventional method by the instructor and is then used as a benchmark to measure how the other tested subjects do. On the other hand, the experimental group received the new treatment by the instructor. Here, the term 'treatment' refers to the instruction which is based on group dynamics principles.

The tentative treatment is determined to be implemented in the classes. According to Tuckman (1965), there were four stages of group development which have a great impact and relevance for the study of the classroom context: • Stage 1 Forming: Students are anxious and dependent on a teacher. They try out new methods and look for acceptable behavior, rules and norms. • Stage 2 Storming: Students rebel against each other and the leader (the teacher). They could not accept the norms and rules or concentrate on a given task to fulfil it successfully. • Stage 3 Norming: The group becomes more cohesive; students help each other in order to reach their aim. They begin to accept the norms and their roles. The group does not get out of control, students eagerly exchange their views. • Stage 4 Performing: Everybody contributes to task completion. All problems are resolved, solutions are easily found. Members of the group concentrate on the interpersonal relations.

To finalize the study, a thirty-day period of time lapse will be needed before the post-test can be applied. The reason why the time lapse is forty five days is that each semester at Iran Australia School of Foreign Languages, the institute where the study was conducted, lasted forty five days. During this period of time, the participants attended the class three times a week, and each session lasts 90 minutes. Following the norms of the institute, a topic for discussion will be given to the participants (in both experimental and control groups) each session. The topics were based on the titles of Four Corners 4 by Jack C. Richards and David Bohlke. Students were first introduced a list of related words and then a particular grammar point. Then question based on the title of each unit was raised. The only difference is that in the control group, the students had no or little interaction with their peers. This means students will perform mostly individually. This happens while in the experimental group, the participants receive d GDOI. As the term 'group dynamics' suggests the participants have as much interaction as possible. This interaction can be in the form of pair work and group work.

### 2.2.9 Test Administration (post-test)

At the end of the semester, an oral post-test was administered, namely the post-test on speaking skill. The topics of the test were based on the titles of Four Corners 4 by Jack C. Richards and David Bohlke. The results then were entered into the SPSS program.

## 3. Results

### 3.1 Preliminary Data Analysis (Testing Normality)

The obtained data from the instruments employed in this study (TOEFL PBT, Speaking pre and posttests, and WTC) were primarily analyzed by employing independent-samples t test and one-way analysis of covariance (one-way ANCOVA).

It should be noted here that besides ANCOVA's two explicit assumptions of linearity and homogeneity of regression slopes, which depict the linear relationship of the numerical values obtained after tests administration and the sameness of the scores obtained, two other common assumptions should be met; normality and homogeneity of variances. Except for normality of the data; the other assumptions will be probed later in this chapter.

Although in the preliminary analysis of this study, the assumption of homogeneity of variances is violated, none of the sample sizes is 1.5 times larger than the other one (Stevens, 2009). The number of the participants in the sample populations is almost equal. As displayed in Table 1, the assumption of normality was met. The absolute values of the ratios of skewness and kurtosis over their respective standard errors were lower than 1.96. As indicated in table 1, the ratios for skewness do not exceed 1.06, and the counterparts of kurtosis do not exceed 0.4. Both maximum values are still below 1.96.

Table 1. Descriptive statistics; testing normality assumption

Group		N	Skewness		Kurtosis			
			Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error
Experimental	TOEFL	80	-.354	.514	-1.57	-1.276	.809	-1.65
	Pre-WTC	54	-.279	.514	-1.48	-.984	.809	-1.59
	Post-WTC	54	.445	.514	1.83	-.591	.809	-0.66
	Pre-ST	54	.539	.514	2.06	.270	.809	1.09
	Post-ST	54	-.493	.514	-2.95	-.565	.809	-1.57
Control	TOEFL	80	-.261	.509	-1.39	-1.373	.798	-1.70
	Pre-WTC	53	-.467	.509	-1.90	.677	.798	1.22
	Post-WTC	53	.126	.509	1.06	-.437	.798	-1.17
	Pre-ST	53	-.238	.509	-1.09	-.881	.798	-1.73
	Post-ST	53	.463	.509	2.64	.618	.798	1.40

### 3.2 TOEFL PBT Language Proficiency Test

As mentioned above, the researcher administered the general language proficiency test (TOEFL PBT) to 160 participants in the first step of the analysis. Based on the mean obtained ( $M = 530.91$ ) plus and minus one standard deviation ( $\pm SD = 17.75$ ); the researcher selected 108 participants to partake in the main phases of the study. To approve of the reliability of the TOEFL test, KR-21 reliability index was employed and the result obtained was .83.

Table 2. Descriptive statistics; TOEFL test

	N	Mean	Std. Deviation	Variance
TOEFL PBT	160	430.91	17.75	80.338
KR-21	.83			

The index obtained is pretty close to 1, which is considered as a perfect reliability index. In other words, the TOEFL test employed is highly reliable and the scores it produced are quite consistent.

In order to prove that the experimental and control groups were homogenous, the researcher ran an independent-samples t test. This was done to compare the experimental and control groups' means on the TOEFL test in order to demonstrate that the two groups were at the same level of general language proficiency prior to the administration of the treatments. As displayed in Table 3; the experimental ( $M = 430.81$ ,  $SD = 15.23$ ) and control ( $M = 428.33$ ,  $SD = 16.36$ ) groups' means differed by 2.48 unites on the TOEFL test.

Table 3. Descriptive statistics; TOEFL test by groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Control	54	428.33	16.364	.960
Experimental	54	430.81	15.231	.848

The results of the independent-samples t test ( $t(63) = .576$ ,  $p = .727$ , 95% CI [-2.61, 4.65],  $r = .073$  representing a weak effect size) (Table 4) indicated that there was not any significant difference between the two groups' means on the TOEFL test. Thus it can be concluded that they were at the same level of general language proficiency prior to the main study. As displayed in Table 4; the results of the Levene's test of homogeneity of variances was not significant ( $F = .073$ ,  $p = .875$ ); that was why the statistics reported on the first row of Table 4; i.e. "Equal variances assumed was reported.

Table 4. Independent-Samples Test; TOEFL by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.073	.875	.576	106	.727	2.521	3.067	-2.610	4.652
Equal variances not assumed			.579	106.00	.727	2.521	3.066	-2.609	4.651

### 3.3 First Null-Hypothesis

The application of GDOI in an EFL class does not necessarily lead to the development of the EFL learners' speaking skills as compared to students in conventional EFL classes. To testify the null hypothesis, the researcher employed one-way ANCOVA analysis. One-way ANCOVA was run to compare the experimental and control groups' means on the posttest of willingness to communicate while controlling for the possible effects of the pretest. ANCOVA has two specific assumptions; linear relationship between the covariate (pretest) and the posttest; and homogeneity of regression slopes. Based on the results displayed in Table 5, ( $F(1, 105) = 153.345$ ,  $p = .000$ ) indicated that the statistical assumption that the relationship between the covariate and posttest was not linear was rejected. In other words; there was a linear relationship between the pretest and posttest of willingness to communicate learners.

Table 5. ANCOVA test of linear relationship between covariate and dependent variables

		Sum of Squares	df	Mean Square	F	Sig.
	(Combined)	45253.276	17	3771.106	12.488	.000
Between Groups	Linearity	43030.531	1	43030.531	153.34	.000
	Deviation from Linearity	2222.745	11	202.068	.669	.761
Within Groups		15702.663	105	301.974		
Total		60955.938	64			

The assumption of homogeneity of regression slopes was investigated through the non-significant interaction between the covariate and the independent variable. As displayed in Table 6; there was a non-significant interaction between the pretest and independent variable ( $F(1, 105) = 1.44$ ,  $p = .351$ , partial  $\eta^2 = .032$  representing a weak effect size); hence homogeneity of regression slopes is low.

Table 6. Tests of between-subjects effects; testing homogeneity of regression slopes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Group	66.328	1	66.328	.386	.537	.006
Pre-WTC	41060.988	1	41060.988	238.684	.000	.796
Group * Pre-WTC	230.912	1	230.912	1.44	.351	.032
Error	10493.855	105	172.030			
Total	884625.000	65				

The assumption of homogeneity of variances was also met ( $F(1, 63) = .471$ ,  $p = .765$ ) (Table 7). As displayed in

Table 8; the experimental group ( $M = 118.27$ ,  $SE = 2.32$ ) had a higher mean than the control group ( $M = 97.18$ ,  $SE = 2.29$ ) on the posttest of Willingness to Communicate (WTC) after controlling for the possible effect of the pretest.

Table 7. Levene's test of equality of error variances

F	df1	df2	Sig.
.471	1	105	.765

Table 8. Descriptive statistics; posttest of willingness to communicate by groups by pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Experimental	118.276a	2.327	118.625	127.928
Control	97.187a	2.291	97.606	106.767

a. Covariates appearing in the model are evaluated at the following values: Pre-WTC = 95.62.

The results of one-way ANCOVA ( $F(1, 105) = 65.62$ ,  $p = .000$ , partial  $\eta^2 = .512$  representing a large effect size) (Table 9) indicated that the experimental group significantly outperformed the control group on the posttest of willingness to communicate (WTC) after controlling for the possible effect of the pretest. Thus the first null-hypothesis which holds that GDOI does not have any significant effect on the EFL learners' WTC as compared to students in conventional EFL classes" was rejected. The significant F-value associated with the pretest of self-directed learning ( $F = 276.04$ ,  $p = .000$ ) indicated that it was correctly selected as a covariate.

Table 9. Tests of between-subjects effects; posttest of willingness to communicate by groups by pretest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Pre-WTC	40831.247	1	40831.247	276.046	.000	.792
Group	7200.640	1	7200.640	65.627	.000	.512
Error	10724.767	105	172.980			
Total	884625.000	106				

### 3.4 Second Null-Hypothesis

The second null hypothesis indicates that GDOI does not necessarily lead to the development of the EFL learners' speaking ability as compared to those students in conventional EFL classes.

A one-way ANCOVA was run to compare the experimental and control groups' means on the posttest of Speaking Ability (SA henceforth) while controlling for the possible effects of the pretest. Based on the results displayed in Table 10, ( $F(1, 105) = 149.72$ ,  $p = .000$ ) indicated that the statistical assumption that the relationship between the covariate and posttest of SA was not linear was rejected.

Table 10. ANCOVA test of linear relationship between pretest and posttest of speaking ability

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)	1811.652	18	106.568	9.873	.000
	Linearity	1616.132	1	1616.132	149.721	.000
	Deviation from Linearity	195.520	17	12.220	1.132	.355
Within Groups		507.333	87	10.794		
Total		2318.985	105			

In other words; there was a linear relationship between the pretest and posttest of SA. As displayed in Table 11;

there was a non-significant interaction between the pretest and independent variable ( $F(1, 104) = 3.61, p = .062$ , partial  $\eta^2 = .056$  representing a weak effect size); hence homogeneity of regression slopes.

Table 11. Tests of between-subjects effects; testing homogeneity of regression slopes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Group	9.939	1	9.939	4.024	.049	.062
Pre-SA	1649.385	1	1649.385	667.788	.000	.916
Group * Pre-SA	8.940	1	8.940	3.619	.062	.056
Error	150.665	102	2.470			
Total	33735.000	104				

The assumption of homogeneity of variances was not met ( $F(1, 104) = 9.59, p = .003$ ) (Table 12). As it was mentioned above; there was no need to worry about the violation of this assumption because the ratio of the larger sample size over the smaller one; i.e.  $33/32=1.02$ , was lower than 1.5 (Stevens 2009).

Table 12. Levene's test of equality of error variances

F	df1	df2	Sig.
9.591	1	104	.003

As displayed in Table 13; the experimental group ( $M = 24.92, SE = .28$ ) had a higher mean than the control group ( $M = 19.13, SE = .27$ ) on the posttest of SA after controlling for the possible effect of the pretest.

Table 13. Descriptive statistics; posttest of speaking ability by groups by pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Experimental	24.921a	.284	24.354	25.488
Control	19.137a	.279	18.579	19.696

a. Covariates appearing in the model are evaluated at the following values: Pre-SA = 19.77.

The results of one-way ANCOVA ( $F(1, 104) = 211.02, p = .000$ , partial  $\eta^2 = .773$  representing a large effect size) (Table 14) indicated that the experimental group significantly outperformed the control group on the posttest of SA after controlling for the possible effect of the pretest. Thus the second null-hypothesis was rejected. The significant F-value associated with the pretest of SA ( $F = 638.67, p = .000$ ) indicated that it was correctly selected as a covariate.

Table 14. Tests of between-subjects effects; posttest of speaking ability by groups by pretest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Pre-SA	1644.129	1	1644.129	638.676	.000	.912
Group	543.248	1	543.248	211.029	.000	.773
Error	159.605	104	2.574			
Total	33735.000	105				

### 3.4 Instrument (Test) Analysis

In order to approve of the efficiency of the instruments used in this study, the researcher embarked on assessing the reliability and validity of the tests.

#### KR-21 Reliability Indices

The KR-21 reliability indices for the pretests and posttests of Willingness to Communicate (WTC) and Speaking Ability (SA) test were .95, .96, .79 and .80.

Table 15. KR-21 reliability indices

	N	Mean	Std. Deviation	Variance	KR-21
Pre-WTC	65	95.62	26.956	726.647	.95
Post-WTC	65	112.57	30.862	952.437	.96
Pre-SA	65	19.77	5.382	28.962	.79

The Kaiser-Meyers (KMO) index of .594 was slightly lower than the minimum acceptable value of .50; however there was no need to worry about the violation of this assumption because all of factor loadings (Table 16) were higher than .50 (Field 2013).

### 3.5 Construct Validity

The researcher employed and ran Exploratory Factor Analysis (EFA) through the Varimax rotation to probe the underlying constructs of the tests employed in this study. Exploratory Factor Analysis assumes three important statistical concepts, say, sampling adequacy, lack of identity, and finally lack of singularity. That is to say; the sample size should be adequate for running the analysis, the correlation matrix should not have neither zero (identity) nor perfect (singularity) correlations among all variables.

Table 16. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.594
	Approx. Chi-Square	208.973
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

The significant results of the Bartlett's test ( $\chi^2(10) = 208.97, p = .000$ ) indicated that the correlation matrix – as displayed in Table 17 – was significantly different from an identity one.

Table 17 displays the correlation matrix used to run the factor analysis and the determinant statistic (.033 > .00001) indicating that there were not perfect correlations among all variables; hence lack of singularity.

Table 17. Correlation matrix

	TOEFL Proficiency	Pre-WTC	Post-WTC	Pre-SA	Post-SA
TOEFL (PROF)	1.000	.191	.167	.611	.534
Pre-WTC	.191	1.000	.840	.218	.214
Post-WTC	.167	.840	1.000	.230	.395
Pre-SA	.611	.218	.230	1.000	.835
Post-SA	.534	.214	.395	.835	1.000

a. Determinant = .033

Based on the indices obtained by KMO and Bartlett test as well as correlation matrix, the researcher could run

factor analysis. The SPSS extracted two factors which accounted for 83.59 percent of the variance. That is to say the tests employed in this study measured two underlying traits with an accuracy of 83.59 percent.

As displayed in Table 19 and Component Plot 1; TOEFL, pretest and posttest of WTC and Speaking Ability loaded on the first factor which due to the nature of these tests can be labeled as “general language proficiency” factor.

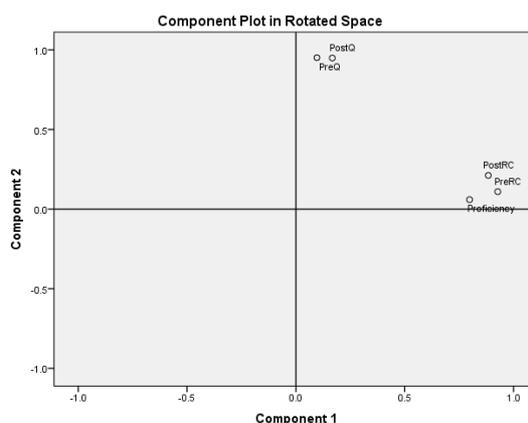
The pretest and posttest of willingness to communicate loaded on the second factor which can be labeled as “willingness to communicate” factor.

Table 18. Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.718	54.363	54.363	2.718	54.363	54.363	2.316	46.323	46.323
2	1.461	29.228	83.591	1.461	29.228	83.591	1.863	37.268	83.591
3	.525	10.494	94.085						
4	.224	4.484	98.569						
5	.072	1.431	100.000						

Table 19. Rotated component matrix

	Component	
	1	2
Pre-SA	.928	
Post-SA	.884	
TOEFL	.798	
Pre-WTC		.951
Post-WTC		.949



#### 4. Discussion

The results of this study reveal a significant difference between the EFL learners' speaking ability in two different groups. Based on the results obtained, those students who received instruction via GDOI outperformed those who received the conventional speaking program.

Apart from that, those students who developed more willingness to communicate than those who developed less,

proved to be stronger in speaking ability. This study supports prior research that has indicated that GDOI along with its components leads to conceptual, psychological, and behavioral changes in learners' thinking order and autonomy which by itself give them more motivation to speak.

The outcome of data analysis also reveals a significant difference between the means scores of groups on the post-test of speaking ability and willingness to communicate.

Based on the results and discussion from the reading pretest scores, post-test scores, student willingness to communicate questionnaires, student behavior analysis, and teacher's classroom behavior, the researcher concluded that GDOI strategies and techniques such as role play, discussion, dialogue, journal etc., have positive effects on improving the willingness to communicate and speaking ability of students at intermediate language proficiency levels. Students performed well and they applied the knowledge gained from the tutorial class and from their previous studies to perform the constructive learning actively and successfully. Furthermore, most students expressed positive opinions and feelings towards the implementation of these strategies in classes. As indicated in the data analyses, participants in this study took advantage of the atmosphere created by GDOI. Both conditions have proven to be positively effective in changing their attitudes towards learning on their own. Based on the results obtained by running factor analysis, we could prove that the tests and instruments employed in this study are both valid and reliable. Both TOEFL PBT and Willingness to Communicate (WTC) tested the construct upon which they were made. In other words, TOEFL was supposed to measure general language proficiency and WTC was used to measure the degree to which a student is willing to communicate a language.

Last but not least, the application of GDOI as a method in our EFL classes has meaningfully and considerably affected the participants of this study to turn into more willing learners to communicate, who have more desire to take part in group talks and group activities while students in conventional classes have proven not to be so willing to interact with other students. As a result, those learners who turned into more enthusiastic students took advantage of such a change to improve their speaking skills.

## 5. Conclusion

This study was conducted to examine the question of whether GDOI would help Iranian EFL learners with their L2 learning attempts on developing and promoting speaking ability as well as willingness to communicate. As stated earlier, the dependent variables of interest in the study were English speaking ability and willingness to communicate. Analyzing the results obtained out of the instruments administered, the researcher found that group-dynamic instruction, accompanied with the regular programs of instruction, would in fact have significant effects on Iranian EFL learners' L2 speaking ability and willingness to communicate. As its effects on speaking ability were concerned, the results were interpreted as showing that GDOI would exert changes to L2 learners' conceptual and psychological predispositions that, in return, would determine the strategies and behaviors the learners employ to address the challenges of L2 learning. During the courses of these changes, learners would come to notice that they are a small part of a unified system, i.e., the groups dynamics would not be any more a sort of threat as it has always been to the individuals. The participants in this study proved to be more willing to initiate communication and less willing to keep quiet when they function as a member of a group in GDOI.

GDOI, as the study results indicate, helped Iranian learners reach this conclusion by turning them into more empowered L2 learners who found the chance for critical thinking, deep thinking, questioning attitudes, and the reassessment of their metacognitive strategies and learning strategies. Thus, as far as its effects on L2 speaking ability were concerned, it could be concluded that GDOI improved the sense of willingness to communicate and triggered speaking in the participants in Experimental Group who found themselves free from the usual stress and inhibition.

In this study, GDOI also helped the participants in the Experimental group perform significantly better than those in the Control Group on the L2 speaking ability posttest. This result showed that GDOI had led the former group of improve their willingness to communicate which supports the notion by Wallace's (2003) conceptualization of L2 speaking as a social activity, are the prerequisite for proficient comprehension of L2 speaking. Further, it was hypothesized that, along with the psychological and behavioral changes resulting from GDOI led to willingness to communicate, the participants in the Experimental Group re-evaluated their cognitive and metacognitive L2 speaking strategies. This re-evaluation might have caused them to perform better on the L2 speaking posttest than the participants who were instructed through the conventional L2 teaching method.

Finally, the analysis showed that, like any other L2 teaching technique and strategy, GDOI would suffer some limitations. The point is that EFL learners in the present study were aware of such limitations and contended that the limitations might hinder the benefits they could avail from such L2 teaching strategies.

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