

accordance with CTBL's objectives which can encourage students to interact with their classmates more effectively in order to learn more and use it in real-world settings.

It, however, seems that *more research* is required to clarify the issues of team learning styles and learners' beliefs through this type of language instruction for language skills and sub skill.

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students. Therefore it could be claimed that CTBL had better results than conventional learning and improved the Iranian learners' reading comprehension.

Also the data obtained from the pre-and post-tests of the high, medium, and low level students in both classes were tabulated, analyzed and compared and the results showed the control and experimental group improved their reading the all level but the lower level students improved their reading comprehension much better. That is, CTBL had better impact on lower level students which might be due to their lack of knowledge.

## Summary of the Study and Conclusion

This study was conducted to probe the plausible effects of CTBL on Iranian senior high school students' reading comprehension as well as its possible influences on different learners. Comparing achievement of the two groups, the researcher found CTBL class outperformed the traditional-individualistic learning one. It was also noticed that more individual learning and understanding had occurred in the CTBL class than in traditional one. The lower level students made best use of their team mates' reading comprehension capabilities and developed their own reading skills and strategies.

It was also surprising that in the experimental group while having a team goal to which each member had to contribute, obtained positive interdependence, individuals, sense of responsibility, and learner to learner tutoring and the teams competed in performance against one another. It was also impressive to see the persistence of the teams with a high motivation sustained during the course to ensure that each member of the team has achieved a through understanding of whatever was being discussed.

Moreover, the involvement of not just the ones but also the lower ones was noticeable.

In conclusion, it is amazing that our classrooms activities are completely oriented towards traditional techniques and it is the time to get rid of the out-dated pedagogical skills.

## Pedagogical Implication

This study provided data that reflects the essentials needs of our classrooms. The results provided can be of some help to High school *language teachers*. Although using new methods is paramount and effective in learning, teachers should not neglect the significant influence of *interaction* which can bring about many positive results, on the implementation and success of their innovations. The process of learning is not a smooth one; teachers' efforts would be in vain if they insist on their traditional "*chalk and talk*" system of class management. This research corroborates the idea that a general understanding of the principles of CTBL can help high school *teachers* to develop a range of tactics for creating more motivating and relaxed environments for learning which would enable their classes to become fully bonded, motivated, activated, and engaged in the process of learning the English language.

To decrease the threatening and unpleasant environment which is the immediate outcome of our present testing system; also to set testing administration system of classes in a way to enhance achieving teaching objectives, *test designers and examiners* may rethink about their types and contexts of testing and grading systems (Hosseini, 2000; p .77).

It might, as well, help the *Material developers* to design and incorporate more motivating and challenging exercises, activities, and materials in

results were put under a series of statistical analyses. First of all, the means, standard deviations, and variances of the two groups in pre-test were calculated (Table 1).

**Table 1. Pre-test results for both groups**

Groups	N	X	S D	V
Exp.G.	30	17.6	2.93	8.7
Cont.G.	30	17.76	2.95	8.5

This table indicates that our two samples had, though not exactly, the same dispersions of means which seemed to be suitable for our purpose in this research. Next an independent t-test was used to verify the pre-test results on both groups (Table 2).

**Table 2. The t-value for the pre-test of the two groups**

T.C.	D.F	2-tail p.	T.O.
2	58	0.05	-0.21

The value of the calculated t was -0.21 which was less than the value of the t-critical (2) at 0.05 level of probability. Therefore, the two groups had little differences.

At the end of the study the results of computing the means of the pre-and post-test of the control group indicated that there was some progress in this group. In order to find out the difference, the researcher conducted a matched t-test (Table 3).

**Table 3. Paired t-test for control group**

Group	X1	X2	S1	S2	D.F.	T.O.
Cont.	17.76	21.16	2.93	5.42	29	-6.8

$P \leq 0.05$

t.critical 2.045

The results indicate significant difference between the control group performances on both tests because the observed t of -6.8 at a probability level of  $p \leq 0.05$  exceeded the critical t of 2.045.

The scores gained from the pre-and post-tests of the experimental group were also calculated and the result showed a remarkable difference which confirmed the importance of CTBL on Iranian senior high school students' reading comprehension. To be sure of the results, the researcher conducted another paired t-test (Table 4).

**Table 4. Paired t-test for experimental group**

Group	X1	X2	S1	S2	D.F.	T.O.
Exp.G.	17.6	25.5	2.95	3.95	29	16.8

$P \leq 0.05$

t.critical 2.045

This time the t-observed (16.8) exceeded the value of t-critical (2.045) at a probability level of  $p \leq 0.05$  and supported the idea that CTBL had a significant impact on Iranian senior high school students' reading comprehension.

Then the means, standard deviations, and variances of two group in the post-test were calculates and the differences between them showed a significant difference between the two groups (Table 5).

**Table 5. The t-value for the post-test of the two groups**

T.C.	D.F.	2-tail p.	T.O.
2	58	0.05	16.8

Since the t-observed of 16.8, at a probability level of  $p \leq 0.05$  exceeded critical t of 2, the result of the independent t-test confirmed the positive relationship between CRBL and reading comprehension of Iranian senior high school

## Design and Procedure

Based on the purpose of the study, the blueprint of the procedure was a “pre-test post-test control group design”. To have a valid and standard test, a test consisting of 51 items was prepared. For the reading comprehension passages to have appropriate levels of difficulty the readability indexes of the reading textbook were determined utilizing the Fog Index of Readability formula. The obtained figures, then served as indices to select appropriate passages to be included in the test. Then the test was reviewed by the instructors teaching the courses to make sure that the test was geared towards the course objectives. After receiving the instactors’ comments, she test was revised and 9 items were discarded. Then it was administered to a sample population of 16. At this stage, analyzing the items 7 other poor items were deleted. Finally, the correlation with a standard Preliminary English Test (PET) was calculated. In order to homogenize the participants, according to their reading comprehension abilities, the pre-test was administered to 76 students in the first session. Next, on the basis of the information obtained, 60 students who were nearly at the midpoint were chosen as the key informants. That is, scores which were very high or too low on the test were discarded. The selected subjects were randomly assigned to two groups of experimental and control. For the experimental group to set up mixed heterogeneous teams, the researcher ranked learners names on three reading comprehension achievement cluster from high to low according to their pre-test marks. Afterwards, to make best use of Van Lier’s (1996) *multiple zones of proximal development theory* which tried to illustrate the importance of involving multiple “whos” in social interaction; they were selected randomly from

each band-3 members per team .Consequently, teams involved learners with a range of reading comprehension abilities. In simpler terms, one high who was considered the *captain*, one medium, and one low reading level student were selected to form a heterogeneous team. After that team’s members were arranged in specific face-to-face settings. Then the importance and basic elements of team learning such as positive interdependence, face-to-face interaction, individual accountability, collaborative skills and team processing were explained and highlighted to the experimental group.

During the experiment, both classes had the same instructor, the same curriculum, and the same schedule of instruction, except that in control group the students had conventional learning, that is, they did the in-class and out-of-class reading passages individually, whereas the experimental group worked in teams. They also used a collaborative answering technique called “Numbered Heads Together” The procedure of “Numbered Heads Together” of Olsen and Kagan (1992) was as follow:

1. Each student in a team of three got a number by the captain :1, 2, or 3.
2. After teaching the related reading comprehension passage, the teacher asked a series of different “content bound” questions.
3. All members in each team came up with an answer. They had to be ready to support their answer based on the text.
4. The teacher called a number from one to three, the person with that number answered for the team.

## Data Analysis and Interpretation

To answer the stated question, after scoring the tests and tabulating the scores for each subject, the

lead to the development of higher-quality cognitive strategies, increase comprehension by requiring students to teach each other, enrich the learning experience by blending students of various ability levels and experiences, help the students gain confidence in their abilities and encourage the weaker students to participate in classroom activities.

In the case of a reading class, as Jacobs (1988) argued, increased communication would be beneficial in two ways. First, students would learn more about how to gain comprehension strategies. Second, they would be persuaded to discuss and negotiate the meaning in their groups more often. Cooperative learning (Jacobs et al 1996) offers opportunities for pre modified input that focuses on meaning in lower-anxiety contexts, interactionally modified input and comprehensible output.

Steven et al. (1987) reported six studies on Cooperative Integrated Reading and Composition (CIRC) reading and writing outcomes in grades 2–8. All six evaluations compared the performances of students to control students for reading vocabulary, reading comprehension, language mechanics, and language expression. The median effect size across all studies was +0.29 which was educationally considered significant. In 1992, Ronald K., as Himson (2000) reported, implemented CIRC in nine 3rd grade classes in rural Ohio with 198 students. The results of the study revealed that the CIRC group significantly outgained the control group on reading comprehension. In addition, when the groups were divided into three reading levels (low, middle, and high) differences were found in the lower level favoring CIRC. Another writer also confirmed the idea that CIRC provides the most influential curricula and instructional practices for teaching reading (Slavin, 1995).

According to Flowerdue (1998) interaction can involve reflection on the learning tasks through peer evaluation. The claimed benefits of peer evaluation, as Roskams (1999) claimed, include the development of learning skills, fairer assessment, critical thinking skills, development of social skills and the development of flexible and active learning. Shi (1999) also has come to this conclusion that group talk generates more negotiated output and demonstrates greater effectiveness in developing language skills. And finally a large body of research, including Senior (1997) suggested that cooperative learning activities are associated with positive outcomes such as people's mindful of other people's abilities and limitations, rapport between teams and most importantly, as Johnson (1987) showed, leads to instructional outcomes that relate to future career and life success and as a result peacefully progressive societies

## Method

In Summer 2000, the researcher administered the standardized Reading Comprehension Test to a total population of 76 students and a selected group of 60 senior Iranian male students at "Amir Kabir" high school in Jajarm, Khorasan. The reading test consisting of 12 vocabulary, 6 sentence comprehension and 17 reading comprehension items of 4 passages on the basis of their course syllabus in the first session and was administered as the pre, and post-test. Its validity and reliability were already established through discarding items and concurrent administration of the test with standardized "PET" test the materials used in this study were the students' textbook and some parts of "Steps to Understanding"

Jean Piaget and Lev Vygotsky, who emphasized the facilitative role of interaction in learning. Sotillo (2002) also highlighted the idea that peer corrective feedback is congruent with Vygotskian approaches to learning that emphasize collaboration and eventually leads to independent problem solving. Cooperative Learning includes some activities such as learning together, team learning, and jigsaw. The common rule in these activities is that students work together to accomplish shared goals (Olsen & Kagan, 1992&Qxford,1997).

In this study, however, taking it into account that most of our classes are heterogeneous and the fact that the use of strategies varies according to level of students, i.e., older and more proficient readers are more aware of how they control their learning and more able to verbalize this awareness (Block,1998, pp .319–323) or intermediate students use slightly fewer strategies in total but proportionately more metacognitive strategies (Cook, 2001) ; and most importantly considering the tendency of Iranian high school students for “competition” rather than “cooperation”, the researcher thought of designing an appropriate context which could potentially bring about the opportunities of interaction in a highly motivating and competitive as well as relaxed environment and consequently the opportunity of transferring skills and strategies. Cook expected such a strategy to facilitate and deepen the learning of students, and to let even the best students learn something valuable in accordance with their academic purposes. The remedy emerged in the form of “Competitive Team-Based Learning (CTBL), a combination of competitive and cooperative learning. CTBL would be the same as team learning with the exception that “competition”, as a magic motivator, as in the words of the researcher, is injected and enhanced among teams

through different strategies. Here, to reach the shared goals and to help his / her team outperform the teams, each member of a team feels accountable for his / her own learning and of course is highly motivated to increase the learning or others simultaneously. In such an environment, as Michaelsen, et al (2003) also put it, *the team can do things that neither a single individual nor a newly-formed group can do.*

The purpose of this study was to answer the following questions

1. Does Competitive Team Based Learning have any impact on the Iranian senior high school students' reading comprehension achievement?
2. Do high, average, and low level students benefit from Competitive Team Based Learning differently?

### **The Evaluation of Cooperative Learning**

Since its development and Johns Hopkins University Center in 1970, Cooperative Learning has become a major movement in language teaching and has gained particular impetus from the time communicative classrooms became the accepted norm. As Hirst et al, (2004) have observed, cooperative learning situations result in higher levels of self-esteem, healthier processes for deriving conclusions about one's self worth, more intrinsic motivation, more persistence in completing the tasks, and greater psychological health than do individualistic learning experiences. Tsui (2002) pointed out that teacher fronted interaction, compared to group work, provides more opportunities for learners to initiate and control the interaction to produce an much larger variety of speech acts and to engage in the negotiation of meaning. Cooperative learning situations, (Gunderson and Johnson, 1980) increase the learning achievement because group discussion and cooperation promote discovery,

## Abstract

Empowering learners with the essentials needed for achieving academic purposes as well as preparing them to be a true member of the society they are to live in is one of the major concerns of modern education. This study aimed at investigating the plausible impacts of Competitive Team-Based Learning (CTBL) on reading comprehension of Iranian senior high school students. It also tried to diagnose its influence(s) on different levels of reading comprehension.

After administering a standardized reading comprehension test, a group of 60 homogeneous senior high school students were selected from a total population of 76. Then, they were randomly assigned to control and experimental groups. The experimental class was divided into 10 teams of 3 students in each. Both classes received the same schedule of instruction for sixteen weeks. The experimental group experienced CTBL while the control group had its conventional context. At the end of the study, the obtained scores on the pre-and post-tests were analyzed through different statistical procedures. The results showed that CTBL had a significant effect on improving Iranian senior high school students' reading comprehension. It also indicated that lower level ones benefited the most.

**Key Words** :competitive team-based learning, interaction, skills and strategies . transferring, process of learning, reading comprehension.

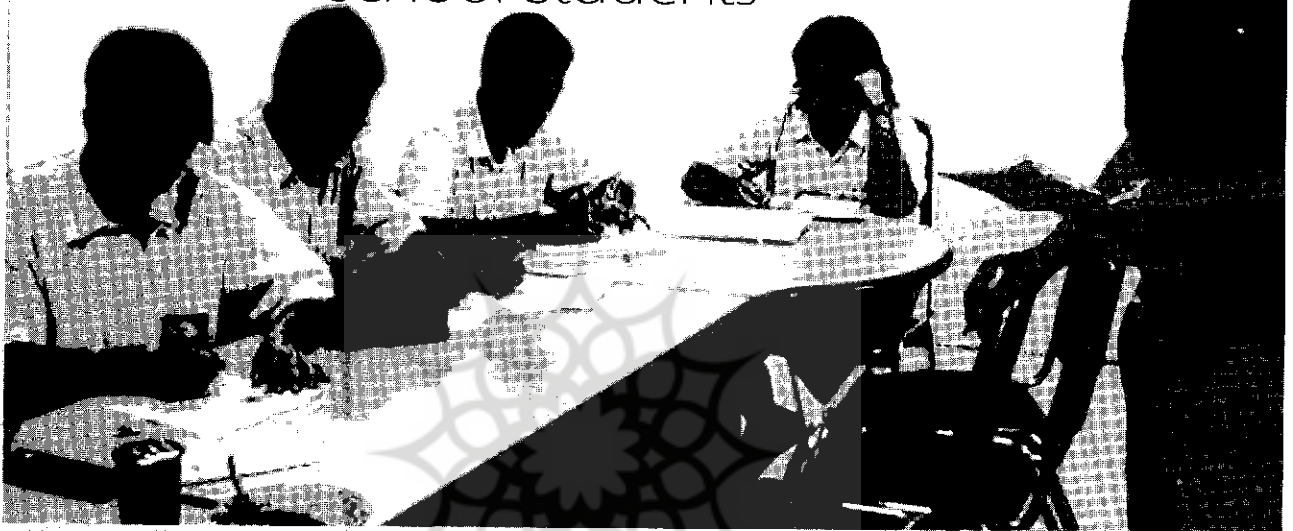
## Introduction

Notwithstanding the importance of reading comprehension for educational and professional success, ELT's ultimate expectations have not been achieved up to the present time (Mirhassani, 1995, p. 25). The fact is that our conventional individualistic learning ignores a critical component in the learning process, that of "interaction" among students which greatly affects the process and consequently the outcomes of learning "interaction" as Lansley (1994) maintained "has the potentiality of involving students in the process of learning" (p. 50) [as well as helping their peers' skills and strategies]. It allows them to negotiate the new input thereby ensuring that the language which is heard is modified to the comprehensibility they can manage (Flowerdue, 1998). The study of Lightbown and Spadas (2003, 168) for instance, showed that learners, surprisingly, produce less errors in their speech when talking to learners at similar levels of proficiency. They can also discover information or knowledge about the second language that they study.

Accordingly, teachers have several ways to structure academic lessons e.g. "individualistic learning", "competitive learning", "cooperative learning", etc. Some of which take the importance of interaction into account. Jacobs (1998) asserts that "individualistic learning there is no interrelation and one person's success is independent of another's. In competitive learning, on the other hand, he explains, "the class is in a win-lose struggle to see who is the best" (pp. 97-98); in other words, one person achieves her/his goal only if other people do not achieve theirs. And "Cooperative learning", as Lefrancoise (1999) declares, "is essentially a humanistic approach to education. It has taken on the connotation of a set of highly structured, psychologically and sociologically based techniques. It combines the cognitive and affective aspects of learning and emphasizes participation and active engagement of the students both of which are of humanistic concerns". (p. 149) Cooperative learning advocates (Richards and Rodgers, 2002), have drawn on the theoretical work of developmental psychologists,



# The Effect of Competitive Team - Based Learning on the Reading Comprehension of Iranian Senior High school Students



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## چکیده

یکی از مهم ترین هدف های تعلیم و تربیت نوین ، توانمند کردن فراگیران از طریق مجهز کردن آن ها به مهارت های مورد نیاز برای نیل به هدف های آکادمیک و نیز آماده کردن آن ها برای ورود به جامعه است . این تحقیق تأثیر احتمالی یادگیری تیمی رقابتی ، یعنی تأثیر تعامل بین فراگیران و درگیر کردن آنان در فرایند یادگیری و تبادل مهارت ها در محیطی مشارکتی رقابتی را بر درک مطلب دانش آموزان دبیرستانی و نیز ، تأثیر احتمالی این روش را بر درک مطلب دانش آموزان ضعیف ، متوسط و قوی بررسی کرده است .

به این منظور ، بعد از اجرای یک پیش آزمون استاندارد درک مطلب ، از میان ۷۶ داوطلب شرکت در کلاس های ویژه ی درک مطلب ، ۶۰ دانش آموز دبیرستانی تقریباً هم سطح (از نظر مهارت های خواندن) انتخاب و به صورت تصادفی به دو کلاس ۳۰ نفره آزمایشی و شاهد تقسیم شدند . در کلاس آزمایشی ، با توجه به نمرات آن ها در پیش آزمون ، ۱۰ تیم سه نفره ی مختلط تشکیل گردید . مدت ۱۶ هفته هر دو کلاس یک برنامه و هدف آموزشی مشترک را دنبال کردند ، با این تفاوت که کلاس شاهد ، یادگیری در محیطی معلم محور و کلاس آزمایشی یادگیری در محیطی مشارکتی رقابتی را تجربه کردند . بعد از ۱۶ هفته ، آزمون نهایی اجرا شد و با محاسبه و مقایسه ی آمار و ارقام به دست آمده از اجرای دو تست برای هر دو کلاس آزمایشی و شاهد مشخص شد که این روش تأثیر شگرفی بر درک مطلب دانش آموزان متوسطه دارد . علاوه بر این مشاهده شد که قدرت و مهارت های درک مطلب افراد کلاس آزمایشی ، به ویژه افراد ضعیف تر ، به طور چشمگیری افزایش یافت که نتیجه ی تعامل اعضای هر تیم با یکدیگر و استفاده از تجربه ها ، دانش ، و مهارت های یکدیگر در فرایند یادگیری در محیطی پویا ، فعال و شاداب بود . مطالعه ی کاربردهای این مقاله می تواند به دبیران زبان به طور مؤثر کمک کند .

کلید واژه ها: یادگیری تیمی رقابتی ، تعامل ، تبادل مهارت های یادگیری ، فرایند یادگیری ، خواندن و درک مطلب .