The Relationship between Language Games in Discourse Interactions in Classroom and Strengthening and Developing Vocabularies of Grade Two Male Students in Primary School

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Abstract

The purpose of the present research is evaluating the effect of teaching method based on language games on development of students' language and discourse. The main hypothesis of the research is based on effect of language games on development of students' vocabularies. The participants of the research included 44 second grade male students in primary school who were studying at 2015-2016 in Qarchak of Varamin in schools which the researcher teaches in them. Sample for study was divided into two groups of experimental and control though simple random. Initially, pretest was taken from the both groups in order to obtain full confidence of their integration and awareness about vocabularies of the lesson. Then the experimental group was educated for 6 months means from October 2015 to April 2016 for 3 hours per week through method based on language game and the control group was educated based on traditional method at the same period through the usual method with the same teacher and training book. At the end of the treatment, posttest was taken from the both group. Results indicated a considerable difference has been made between the experiment and the control groups.

Keywords

language games, vocabularies, morphology, discourse analysis, classroom discourse, moderate style, active style

1. Introduction

Due to certain features of game and its various benefits in comprehensive growth of child's mental, physical, personality and social powers, some professionals in education who have considered manner of game's role in educating children, theories of Plato, Aristotle, Khajeh Nasiroddin Tusi, and Imam Mohammad Ghazali can be mentioned. Even some trainers have emphasized using game as the major tool to educate a child to learn various issues. Burenheide (2006) in a research concluded that

educational games are generally considered as an effective strategy and increase learning and motivation of students in classroom. Richness and development of students' vocabulary depend on various factors such as teaching method of teachers, based on textbooks, possible instructions in education or creative and innovative teaching methods of teacher can be conducted in various ways that their results can be different. There are some shortcomings in method of teaching vocabularies based on text books that can be solved through pursuing innovative and creative method for language games. Considering to the researcher's experience in interactions with second grade male students in primary school it seems that development of students' vocabularies based on the existing and common method in schools compared with teaching vocabularies through language games not only will have better results but also will have joy and mirth for students and discourse in classroom. So problem of the research is what is more effective method to promote and enrich students' vocabulary and word making (morphology)? Due to observations of the researches there should be a significant relation between language games and development of students' vocabularies, this issue can be evaluated and tested in the form of following questions.

1)   What is the relationship between language games and development of students' vocabularies?

2)   What is effect of strategy of using vocabulary in making sentences on learning vocabularies for students?

3)   What is role of language games on discourse style in classroom?

Many researchers believe that it is not possible to separate motor and cognitive functions and they are not separable. The issue of this research is important because learning various lessons theoretically or inferentially in primary school or generally educational development is very important for those who are involved in education. Basically in this research games will be considered as a variable that provides grounds of effects on discourse in classroom and development in education and considering that some fluctuations are seen in the educational process of primary students; some appropriate solutions should be provided to improve learning process through conducting similar researches. Theories raised by psychological scientists such as Piaget, Jean who emphasizes the importance of game indicate this point that great effects can be made in learning process especially in primary school by professional and scientific planning through this factor. But from another hand, preparing lessons in the form of lesson plan based on discourse interactions in classroom and activating participants of this discourse in talking with each other, type of the provided game and quality of their effect, which play a basic role in primary school on mental and cognitive abilities and experience process and joy of children, have a certain importance. Focusing attention of educational and managers to quantities and qualities of game activities through creative and dynamic methods for language development of students to optimum use of their favorites to select game in order to lead them to educational goals with view of discourse analysis in classroom and generally creating a correct thought to make it important as a need in childhood can greatly help to teaching lessons such as vocabulary and educational productivity.

2. Review on Previous Studies

2.1 Studies of Internal Researchers

2.1.1 Afshar (2015)

The main purpose of this research is evaluating effect of game on amount of learning English vocabulary for Iranian young beginner students. 90 students in the first period of high school were selected to conduct the research. Because of practical barriers the researcher couldn't select students randomly but selecting control and experiment groups has been randomly. In this research there are two experiment groups and a control group. In the control group vocabularies were taught through traditional method. In one of the experiment groups, vocabularies were taught by using game as a main tool and in another experiment group the combined method means a combination of traditional and game methods has been used to teach vocabulary and game was used as a complementary activity. After completing the course, posttest has been used to evaluate performance of the groups. Statistical evaluation has indicated there is much difference between the group in which the combined method has been used to teach vocabulary and the control group in terms of amount of learning vocabularies but there is no much difference between the group which has used game as the main tool of teaching vocabulary and the control group; this means that using game as the combined and complementary method has the most effect on learning vocabulary.

2.1.2 Shariatmadari, Qodsi, Seyf Naraqi and Qanbari (2011)

Purpose of this research was evaluating effect of educational games on learning concepts of math curriculum in students. The studied population included all first grade female students in primary school in Shahr-E-Rey at 2010-2011. The sample size equal to 50 first grade students was selected based on Cochran formula by using multi-stage sampling and they were placed in two groups of 25 students (experiment and control groups). A test with 30 questions in two fields of concept of training numbers (notation) and concept of comparing numbers (less, more and equal) was used in order to collect data. Educational games (6 games) were played in 10 sessions. This quasi-experimental research is from the type of pretest-posttest with control group and follow up stage. Descriptive statistics and inferential statistics (paired t test, t test for independent groups) were used in order to analyze data. Results in the research indicated educational games are effective on learning concepts of math curriculum in the field of concepts of notation, less, more and equal in students.

2.1.3 Ebrahimzadeh (2015)

This study evaluated learning and retentionship of vocabulary through digital video games. In addition, this study assessed the effect of this type of games on students' motivation to learn vocabulary. As well, value for validity of joy of electronic learning for retention of vocabulary was measured. The participants were placed in three groups of signers, players and spectators at random assignments. Signers learned vocabulary through concentrated study. Players learned vocabulary through playing with a digital video game. Spectators learned the vocabulary meanwhile watching two classmates during playing. Data was analyzed through multivariate analysis of variance and standard multiple

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regression tests. Result of the present research is digital video games as complementary activities are appropriate tools for learning and retention of vocabulary and in addition to increase motivation for learning vocabulary make learning vocabulary enjoyable.

2.2 Studies of Foreign Researchers

2.2.1 Malinow and Black (2003)

In a research in which computer games and mathematical performance of students have been considered Malinow and Black studied how 11 students with learning disabilities who are kept in a private school on a conceptual test and improvement of verbal problems related to practice method fitted their vocabulary after cooperation in the plan for a week with a computer program named Proportion Power. The computer program was an interactive network-centric program which had been designed to teach problems of language proportion. The authors found that students under desirable level have increased their procedural knowledge after using the program and in return excellent students have improved their conceptual knowledge. It should be noted that despite receiving results, interviews were conducted in a limited time (a day) and findings based on a research plan has been not so strong.

2.2.2 Biguch, Rankin and Orglod (2010)

Considering experimental and mental factors of three dimensional games, they evaluate educational aspects of game Ever Quest 2 as a tool in teaching English language. They have provided methods to teach the second language by combining positive aspects of games. Instead of using old software for teaching language, by using this game they place the participants in a virtual and suspended space. Then participants take a virtual identity and become involved in social interactions. In this game the language, the main element in this research with considering experimental and mental factors of three dimensional games, evaluates educational aspects of Ever Quest 2 as a tool in teaching English. By combining positive aspects of massively multiplayer online role-playing games and also methods for teaching the second language, digital educational spaces are for learning in order to progress and promote character and carry out stages of the game in a virtual world. The initial results indicated Ever Quest 2 has a remarkable effect in learning vocabularies for participants in the medium and advanced levels. Existence of interactions with those characters who don't play promoted the participants' vocabulary level 40%. As well during 8 sessions of playing, participants' conversational skills were increased to 100% due to connection with characters that are played. This research indicates that massively multiplayer online role-playing games with making motivation for the required conditions are powerful tools in order to improve language knowledge for students in medium and advanced levels.

3. Method

The population of the research includes 44 second grade male students in primary school who were studying at 2015-2016 in primary schools of Qarchak in Varamin. Sample of the study was divided into two groups of experimental and control groups though simple random. The research method is experimental method with pretest-posttest design. Initially, pretest was taken from the both groups in order to obtain full confidence of their integration and awareness about vocabularies of the lesson. Then the experimental group was tuaght for 6 months means from October 2015 to April 2016 for 3 hours per week through method based on language game and the control group was taught based on traditional method at the same period through the usual method with the same teacher and training book. At the end of the training course, posttest of language development was taken from the both groups. It should be noted that reading book for the second grade students includes 17 lessons and has been divided to 5 tests that after finishing each section of the book a test was equally taken from the both groups. The instrument of this research was the researcher-made test of language development which was evaluated by professors and advisors in terms of validity and reliability.

3.1 Data Analysis

This research aims to answer the question that can use of methods for language games help development of students' vocabulary or not and generally can it lead to general development of students or not, so it has been tried to divide students into two groups.

The first group is the traditional group which methods of language games have been not used to teach them and traditional and common methods have been used to teach them, this group has been selected as the control group in this research.

The second group is the group of language games which language games have been used to teach them. Therefore, this group has been selected as the experimental group in this research.

In this part, it is tried to describe results of the research in the form of frequency diagrams and tables and then compare the two groups with each other in order to evaluate that using language games has been effective on teaching students or not.

3.2 Comparing Results of Control and Experiment Groups in the First and the Second Hypotheses

3.2.1 Inferential Statistics of the First Hypothesis

In this part, the paired or correlated t-test was used to evaluate whether the relationship has been made between two modes before and after treatment through different methods or not?

3.2.2 Evaluating Normal Distribution Assumption of Data through Tests of Normality (One-Sample Kolmogorov-Smirnov Test)

In the first step, it is tried to test hypotheses in order to evaluate can we use this test or not. Data distribution is one of conditions to use tests for normality. Kolmogorov-Smirnov Test is used to measure the normality of data.

Its results have been summarized in a table as following:

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Table 1. Kolmogorov-Smirnov Test Results

		Factor	Test result	Significance level	Conclusion
Hypothesis 1	Control group	Test of lessons 1, 2 & 3	968.0	305.0	Normal
		Test of lessons 4, 5 & 6	973.0	300.0	Normal
		Test of lessons 7, 8, 9, 10 & 11	899.0	394.0	Normal
		Test of lessons 1 to 11	670.0	760.0	Normal
	Experiment group	Test of lessons 1, 2 & 3	596.1	112.0	Normal
		Test of lessons 4, 5 & 6	929.0	354.0	Normal
		Test of lessons 7, 8, 9, 10 & 11	761.0	608.0	Normal
		Test of lessons 1 to 11	754.0	620.0	Normal
Hypothesis 2	Control group	Test of lessons 12, 13 & 14	997.0	273.0	Normal
		Test of lessons 15, 16 & 17	432.1	033.0	Normal
		Test of lessons 12 to 17	922.0	363.0	Normal
	Experiment group	Test of lessons 12, 13 & 14	103.1	175.0	Normal
		Test of lessons 15, 16 & 17	042.1	228.0	Normal
		Test of lessons 12 to 17	050.1	220.0	Normal

In the interpretation of test results if significance value is more than 0.05 then the observed distribution is equal to the theoretical distribution and there is no difference between two groups. It means that the obtained distribution is closer to the normal distribution. But if significance value is less than 0.05 then the observed distribution is different to the theoretical distribution. It means that the mentioned distribution is not normal and as a result for analyzing it more, nonparametric equivalent test of that means Wilcoxon test should be used; this test considers value of difference between ranks, so variables can have different or spatial answers. As it is observed, all fittings in Kolmogorov-Smirnov test in the significance level are higher than 0.05, this means that variables in the research have normal distribution and analyses with the paired t-test can be continued.

Table 2. Paired T-Test

Topic	Group	Mean	Standard deviation	Mean difference	Freedom degree	T	p-value
Test of lessons 1, 2 & 3	Control group	39.1	17.0	44.-0	21	872.-11	00.0
	Experiment group	83.1	22.0				
Test of lessons 4, 5 & 6	Control group	39.1	14.0	35.-0	21	872.-11	00.0
	Experiment group	74.1	26.0				
Test of lessons 7, 8, 9, 10	Control group	35.1	19.0	40.-0	21	872.-11	00.0

& 11	Experiment group	75.1	17.0			
Test of lessons 1 to 11	Control group	37.1	081.0	40.-0	21	872.-11 00.0
	Experiment group	77.1	131.0			
Test of lessons 12, 13 & 14	Control group	45.1	140.0	42.-0	21	827.-14 00.0
	Experiment group	88.1	125.0			
Test of lessons 15, 16 & 17	Control group	55.1	114.0	32.-0	21	072.-11 00.0
	Experiment group	87.1	066.0			
Test of lessons 12 to 17	Control group	50.1	093.0	37.-0	21	195.-18 00.0
	Experiment group	87.1	082.0			

Considering the above table, it is obvious that the significance level for five tests have been lower than 5% which indicates means of tests are different in experimental and control groups and the mean is higher in the experimental group; it means that number of correct answers in the experimental group has been higher than the control group. It means that using methods of game and using word in making sentences is effective.

3.3 Research Hypotheses

3.3.1 The First Hypothesis: There is a Direct Relationship between Language Games and Development of Students' Vocabulary

Hypothesis H_0: there is no direct relationship between the experimental group and development of students' vocabulary.

Hypothesis H_1: there is a direct relationship between the experimental group and development of students' vocabulary.

In this test if p-value $< \alpha = 0.05$, the equality assumption of means is rejected and assumption of difference is accepted.

Table 3. Paired T-Test in Order to Evaluate Equality of Mean of the Control Group and the Experimental Group in Development of Students' Vocabulary

Topic	Group	Mean	Standard deviation	Mean difference	Freedom degree	T	p-value
Test of lessons 1 to 11	Control group	37.1	081.0	40.0	21	872.-11	00.0
	Experimental group	77.1	131.0				

Due to the above table and results of the test, it is observed that for value of tests of lessons 1 to 11 considering t = 11.87, because value of the mean difference is equal to 0.40 and the significance level is lower than 5%, it is concluded that there is a significant difference between mean in the control group and the experimental group. In another word, mean of students in the experimental class is more than students

in the control group and its value is higher; this means that results the test of the experimental group is more significant than the control group.

3.3.2 The Second Group: Using Strategy of Using Word in Making Sentence Has a Direct Relationship with Learning Vocabulary in Students

Hypothesis H_0: Strategy of using word in making sentence has no effect on learning vocabularies in students.

Hypothesis H_1: Strategy of using word in making sentence has effect on learning vocabularies in students.

In this test if p-value $< \alpha = 0.05$, the equality assumption of means is rejected and assumption of difference is confirmed.

Table 4. Paired T-Test in Order to Evaluate Equality of Mean in the Control Group and the Experimental Group in Strategy of Using Word in Making Sentence

Topic	Group	Mean	Standard deviation	Mean difference	Freedom degree	T	p-value
Test of lessons 12 to 17	Control group	50.1	093.0	37.0	21	195.-18	00.0
	Experiment group	87.1	082.0				

Due to the above table and results of the test, it is observed that for value of tests of lessons 12 to 17 considering t = -18.195, value of the mean difference is equal to -0.37 and the significance level is lower than 5 percent, it is concluded that there is a significant difference between mean in the control group and the experimental group. In other words, mean of students in the experimental group is different from students in the control group and its value is higher; this means that results in test of the experimental group is more significant than the control group.

4. Results

The present research evaluates the effects of teaching method based on language game and teaching word in sentence on development of students' language and discourse. The sample of the research includes 44 second grade male students in primary school who were studying in 2015-2016 in Qarchak of Varamin. What is the relationship between language games and development of students' vocabulary? To answer this question and test of its hypothesis, game can be a strong supporter for activity which can place students in various situations and provide them opportunity to become familiar with events. Game can be a motive for social learning. There is an important issue which is making students' game structured by teacher. This means that to what extent the usual pattern in guiding playing should be presented to children in order to be specifically be designable for familiarizing them with mental methods and skills. When a child goes from kindergarten to pre-school, the degree and level of the syllabus become clearer

and emphasis on playing is decreased and at this time, conditions of learning are conducted widely; however, game can be designed in a way to increase rate of learning.

A solution which experts suggest in order to create motivation in students is regular games. Educational environment can be happy and joyful for students through game since effects of regular games that are related to 7 to 11 years old remain for the whole life. In this research, the teacher teaches new words by using various language games. In statistical analysis of the obtained results due to results of the test, it is observed that for value of tests of lessons 1 to 11 considering $t = 11.87$ the value of the mean difference is equal to 0.40 and the significance level is lower than 5 percent, it is concluded that there is a significant difference between mean in the control group and the experimental group. In other words, mean of students in the experimental group is more than students in the control group and its value is higher; this means that results in test of the experimental group is higher than the control group. It can be concluded form data that using language games has a significant effect on development of vocabulary, in fact there is a direct relationship between language games and development of students' vocabulary. As a result, the first hypothesis was confirmed.

What effect strategy of using word in making sentence has on learning vocabularies in students? To answer this question and test of its hypothesis, it is found that lexical knowledge is an important part of language ability. It can also be found that the importance of teaching word should be considered. One the other hand, learning words traditionally means memorizing new words is a difficult homework for students and teaching them in the classroom is very time consuming for teachers, so researchers in the field of teaching language have always searched more effective methods for teaching and learning vocabulary. Using word in making sentence is another method for development of students' vocabulary which has been used in this research. In technique of making sentence, vocabulary changes from the inactive mode to active and retention of their meanings in mind is more effective. To learn a word, it should be used in various sentences. This will help long-term memory a lot. In statistical analysis of the obtained results due to results of the test, it is observed that for value of tests of lessons 12 to 17 considering $t = -18.195$, the value of the mean difference is equal to -0.37 and the significance level is lower than 5 percent and it is concluded that there is a significant difference between mean in the control group and the experiment group. In another word, mean of students in the experiment class is different to students in the control group and its value is higher; this means that results of the experimental group is more significant than the control group. In fact, the class which has taught vocabulary in sentence has been more successful than the class which has memorized and learned vocabulary through the traditional method; as a result using strategy of using word in making sentence has a direct relationship with learning vocabularies in students, so the second hypothesis was confirmed.

What is role of language games on style of classroom discourse? To answer this question and test of its hypothesis, it's found that game leads to child's connection to outside and develops his social world. Game leads to flourish hidden talents and appear creativity and cooperation, collaboration and partnership of child

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are developed. He becomes familiar with laws and regulation, learns competition, experiences failure truly, finds assertive power and is released of fear, shyness and vain embarrassment, learns to support weaker students. Game satisfies need to superiority, leads to express feelings, emotions, fears, affection, anger and hatred and concerns and declines tendency to militancy and increases child's extratensiveness.

Child understands that if he wants to be accepted in a game, he should be upright, truth-seeking, self-dominating, righteous, honest, loyal, and responsible and having acceptable behavior. He observes ethical principles during the game to environments of home and school, experiences laws with respect to playmate. Shabani mentioned that in addition to physical structure of the classroom the emotional atmosphere of the classroom is so effective in interaction. Discussion and exchange of ideas and thoughts is possible when the classroom changes to welcoming and reassuring environment means the place in which both teachers and students feel trust and security. Respect to students' thoughts is very effective in making the secure atmosphere so their thoughts and beliefs should not be ridiculed or rejected. In the class that language games were played (the experiment group), students exchange their ideas and help and encourage each other, use group knowledge and learn new knowledge by using previous experiences. In fact, in this group, all students become volunteers and noise is made in the classroom. Due to effect of peers, students raise their hands with emotional mode and wave their hands in the air sequentially and change turn of speaking through calling each other without a certain order and randomly. In the class that the traditional method (the control group) was used, the class has tedious. During observation and record of the class, no joke or humor is heard and atmosphere of the class shows fear of students because in this group teacher teaches words traditionally and there is no attractiveness for students unlike the experiment group that teacher makes enthusiasm in students through playing language games. The result is that using language games causes active (conversational) style of interaction compared with the moderate (considerateness) style, a discourse that teaches with joy and happiness, so the third hypothesis was confirmed.

Findings and suggestions in this research can help teachers, developers and authors of textbooks in education system of the country, foreign language institutions and training centers of Persian to non-Persian people in order to create interest and relish about learning language and help their educational development.

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