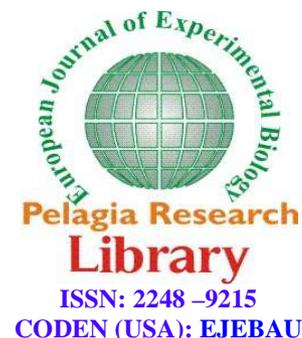




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# The Survey of Teachers' Attitude Toward the effectiveness of teaching methods

Shahram Ranjdoust, Jafar Gahramani and Mokarrameh Rezayi

*Department of Educational Science, Marand Branch, Islamic Azad University, Marand, Iran*

### Abstract

*This study investigated "teachers' views on the effectiveness of active teaching methods and traditional teaching methods in learning science subject in primary school boys and girls in the city of Marand .The research was descriptive – survey. The sample of this study was all male and female teachers in primary schools of educational area 1 in Marand region. Based on the latest statistics, the number of the sample was 415. The sample size was 200 individuals based on the Morgan table which have been selected through multi-stage cluster sampling. Researcher's questionnaires were used to collect data .The reliability of the questionnaire has been approved by faculty advisors and its validity by Cronbach's alpha coefficient which is equal to 92%. The results showed the effectiveness of active teaching methods in terms of teacher education is different. But in terms of the records their teachings don't differ.*

**Keywords:** Effectiveness, Teaching Methods, Elementary School Teachers

### INTRODUCTION

Education in the rapidly changing world and usually rapid transforming requires teachers to continually reflect, learn and continually add to their academic and professional knowledge and get completely familiar with the various methods; using them, be able to affect all aspects of the school's existence and promote learning quality .

Debates among educators in recent decades are due to the fact that learning how best we can facilitate learning and increase its efficiency .The analysis pointed out that the weaknesses of the education are based on the transmission system. It is in active teaching methods that teachers and learners are actively and effectively learn to adjust and learning and teaching occurs bilateral. In this way all teachers and students explore the concepts, and each of teaching methods, is the basis for teaching.

Teaching methods consist of systematic, regular and reasonable way that offer lessons [1]. The teaching methods used in education can be classified in several aspects, including:

1 - In historical terms (historic and modern methods) is based on the development and application of classification techniques which has been done historically. New methods of the past, dates back to the middle Ages. Historical methods are such as home, school, and new methods such as Socratic Method and explanatory methods, lectures, exploration, problem solving, discussion, question and answer, work units, small groups, individual learning, testing,

demonstration, field trips , role Playing, learning by analogy and induction, training and integration technology for technique. So contrary to what is expressed mistakenly is not a historical method of presentation but a new method which does not always include necessary effectiveness for learning.

2- Based on templates (including a description of teaching methods, role playing, etc)

3 - Based on content presentation and addressing the learning goals, directly or indirectly: In the direct method contents are presented directly, including methods for the description and presentation materials directly but in the indirect method of presenting the message of the speech, knowledge and change in attitudes are presented indirectly Such as role-playing, teaching games and active teaching, methods based on learners' interests.... And because of variety and attractions, is helpful in teaching children but we can teach morality and humanity concepts through this method.

4 – In terms of active or non-active learning: usefulness and effectiveness of teaching depends on the learning role. This activity is useful when combined with interest and is considered for the purposes intended. Active learning is not restricted to only the physical aspect but also reading and thinking and listening are included. Active methods with a variety of the most popular include: problem-solving methods, exploration, Discussion, , field trips, role and project (department of Labor).

Learning is a matter of choice, self-conscious and self-learning that can be achieved with the help of another person. Today this fact is proved that deep learning with regard to students' action and reaction learning the material is obtained.

When a man learns something deep, genuine and lasting that self-consciously and actively engages in the activities and efforts of subjective and objective and tries and draws conclusions [2].

Memorizing material without understanding what has been deemed is useless, because nowadays learning means to transfer knowledge and maintain no material. If a teacher cannot influence minds of the learners deeply and lasting with speaking and writing in fact have failed to establish the practice of teaching. Learning will be sustained once the students have mentally engaged in learning and learnable materials and learners themselves willingness to the content with knowledge and experiences. Learning will take place with the above; it becomes an activity that the learner does not the teacher.

This learning method which aims at students' mental and practical abilities through problem-solving, discovering and training logical reasoning and fully development of students is called active teaching [3].

According to the literature review of active learning it can be said that, active teaching is a kind of teaching in which teaching happens as scientific, emotional and social interactions. In active and interactive teaching in addition to gaining information and skills, thinking process and social skills are highlighted. Interactive teaching theorists believe that important life skills are strength by interactive experiences. In this part we refer to some of active teaching characteristics which make the vitality of using these methods obvious.

1. In active teaching, learning means change of experiences by the learner and building new mental structures. In these methods, learning follows students' mentality change. Psychological change defines learning.

2. Learning in active teaching is based on discovery and deduction. Therefore in these methods how to learn is more important than what to learn. In interactive methods students also learn learning strategies.

3. The nature of learning is a creative interaction which is continually in progress between student and teacher. As stated in Piyazhe, most of our important learning are the result of having interactions with others. In active learning methods, what students do, leads to learning. The learner improves because of his/her effect on environment and active reaction.

Teachers organize interactive learning activities in such a way that students really depend on each other and none of group members can succeed unless all members succeed. The motto of interactive and cooperative class is: we all survive or sink. Therefore, the negative competitive aspects will disappear.

- 5- On one hand, real learning in these methods is the changing process of the new perception for matching them with existing cognitive constructions and changing cognitive constructions for matching them with new perceptions.
- 6- Learner is the main source of self-change. Learning is an activity which the learner does and is constantly changing. And therefore the learner changes the experience and also changes him/her self based on the experience.
- 7- The learning process in the process of students' doing activities is a self-governing, self-controlling, self-organizing, and self-managing process.
- 8- Active teaching methods are more stable. Students often engage in more highly cognitive levels, and learner's acquisition penetrates in emotional and behavioral areas. Ruso (1991) believed that when you learn something and teacher it to another person, your learning is more than the time when you just learn through listening and reading something.
- 9- Interactive teaching focuses more on free choice of criteria and values in order to achieve scientific-social facts based on annual activities of people. Therefore, three criteria of freedom, responsibility and choice play an important role on these methods .
- 10- The purpose of interactive and active learning is acquisition of scientific facts through research, thinking, discussion, logical reasoning, modification and strengthening understanding and perception of thinking skills. Interactive methods are a good chance for learners to reflect upon their learning and therefore, they are able to solve conflictions between existing understanding and perception and new experiences and consider new understanding and perception.
- 11- Active teaching methods leads to modification, strengthening cooperation skills, respecting others' thought, rising up critical thinking and tolerating opposite thoughts. When a student with different characteristics stars an activity in a group with the same purpose, they respect each other. Learning by means of cooperation on one hand increases social acceptance and one the other hand increases friendly relationship among students.
- 12- Learning through active method is effective in rising students' self-confidence. Students experience success and support in a group and when they ask questions from each other and need their cooperation feel themselves as being valuable.
- 13- The cooperation in helping sharing environments and more interaction than the environments based on competition and individualism creates motivation. In these methods students are activated because of self-satisfaction and depend less on teachers' incentives.
- 14- Important life skills like speaking, listening, reasoning and problem-solving are strengthening through interactive experiences. If we have enough respect to social skills, learning and effective task with others, we should teach these social skills through interactive methods and create motivation of using these skills.
- 15- Students view teachers who use learning methods through cooperation more fairly than those who doesn't use these methods and like him/her more. Also when a teacher use cooperative groups, they like school more [4].
- 16- More systematic and consistent use of smaller groups has a deep positive effect on the class, class becomes a society of learners which actively work with one another so that it increases knowledge, expertise and enjoy of others [5].

The findings of Keyvanfar [6] entitled" the effect of using active teaching methods on student's success "showed student's success of primary school fourth level in science lesson through active methods is better in comparison students who use inactive teaching.

The findings of Al Nemer and Broman showed that the understandings of students who are trained with excavating learning more than other methods (Ibid), and also claimed that excavating method, makes student interact and search and creates curiosity in them [7].

## MATERIALS AND METHODS

This research is applicable of purpose and of data collection is descriptive survey. The population is all male and female teachers of primary schools of Marand in the academic year 2000 consisting of 415 people. Regarding population group (415), the sample based on Morgan table is 200. For evaluating teachers' view point on the efficiency of active teaching methods and traditional teaching, we make use of researcher's questionnaire consisting of 27 items which 19 questions remained after factor analysis. In order to make the questions of this questionnaire relevant behavior of active teaching are collected and items are designed. For marking the questions Likert 5 scale is used. Validity of the questionnaire is investigated through content validity of guidance and views of experts. The reliability was also evaluated with preliminary performance on 30 people. Factor analysis is used for construct validity which is brought as follows:

In this questionnaire, for the reliability of the effectiveness questionnaire of active teaching and traditional teaching of teachers' view point factor analysis through analysis of principle components. As you see in table 2-3, considering high correlation coefficient of questionnaire's questions this is shown in Kayzer, Mayer-Olkin and Barlett's test results showed that we can justify use of factor analysis. After ensuring of the factor analysis presupposition of analyzing principle components and varimax rotation was carried out on 27 questions. After observing the results items higher than one are selected for extracting factors. Communality table shows this fact.

**Table 1 : and Barlett's test results**

Sig	df	Barlett's test	KMO
0/001	171	1474/933	0/9

Results of the first factor analysis on all questions extract four factors which were higher than one. These four factors together explain 57/55 of the questionnaire's variance. After factor analysis in order to achieve a more simple structure a more balanced varimax rotation was used. Investigating the level of sharing of each question, it is identified that questions 27, 24, 23,21,14,12, share characteristics less than others which we decide to omit these questions. Factor analysis was again carried out on the 19 remaining questions to principle components method and varimax rotation. These analyses were shown in figure 1.

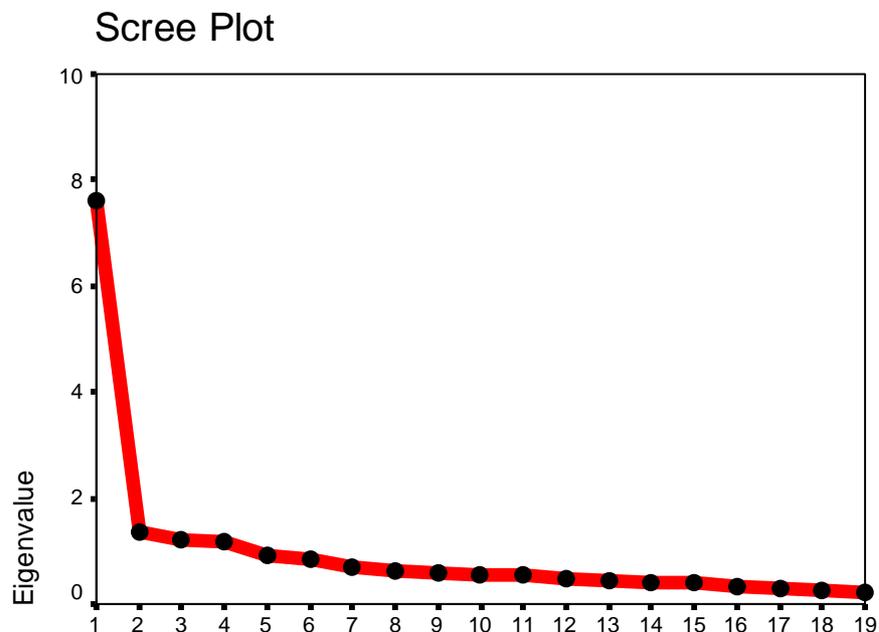


Figure 1: Skiry Ketel table

Rocky figure 1 shows that in second factor analysis, for factors, are higher than one. Table 3-3 shows extracted factors together with specific amounts, variance percentage explained by each factor.

As you see in table 3-3, final factor analysis results in extracting four factors which all together explain 59/83 of the variance.

Based on the data from table 3-3and loads of factors rotated with varimax method 19 questions is related to the effectiveness of active teaching and traditional teaching which are shown in the same table with their factor analysis coefficient load.

**Table 2 : separation of the factors based on their coefficient load with varimax rotation method**

Factor 4	Factor 3	Factor 2	Factor 1	Questions
				How much the following factors positively affect students' learning?
			0/75	Encouraging students to develop high level skills
			0/69	Friendly interaction of student-teacher in the teaching process
			0/66	Making use of the full attention of students
			0/63	Mutual communication between teacher and student
			0/6	Using views and correct responses of students on the topics taught
			0/55	Giving opportunity to students in order to discover the relationship between components or lessons taught
		0/75		Activating students
		0/72		Cooperation among students
		0/64		Pragmatics of content learnt
		0/61		Using group teaching methods
		0/53		Giving cooperation opportunity among students in teaching process
	0/71			Considering individual differences
	0/66			Using a teaching method which challenges learners in learning
	0/57			Providing a summary of the previous lessons in the beginning of the lesson
	0/54			Making relevance of what is learnt with learners' needs
0/68				Intime using of the book and focus of the forms and images
				Explanation of students
0/67				Consideration the abilities of students and starting the lesson regarding these abilities
0/63				Mutual communication between students teacher
0/61				Teacher's focus on contents' meaning with paroting memorization,

In order to determine the reliability of the present study's questionnaire Cronbach's alpha method was used. First the questionnaire was distributed randomly among 30 teachers of Marand, then we analyze the data and calculating Cronbach alpha, the validity is investigated. The calculated alpha was 0/92 which shows high validity of the questionnaire.

**RESULTS**

**Findings**

The effectiveness of active teaching is different from traditional teaching method. According to the data obtained and average difference test we can consider that according to the criterion  $t=2/.670$  and significance level  $p=/.005$  which showed that the difference of the active and traditional teaching marks is significant because the significance level is less than 0/05. Therefore, the effectiveness of active teaching is more than traditional method.

**Table 3 : T-test results**

df	T	Difference		Significant difference tests among indepent averages
		Difference with 0/95 insurance		
		High	Low	Active and traditional teaching methods
99	2/670	0/24868	-0/3467	

**Sample independent tests**

Significance level	
0/005	Independent tests

**CONCLUSION**

21 century is the knowledge century, a century which moves from industrialization into Para- industrialization, a century which information, knowledge and awareness are basic properties of nations and societies. Developing and IT increasing and shortening of financial cycles, abstract properties specially science and knowledge are important. Educational organizations such s schools produce, reflect, and store information and knowledge. With entrance of new technology, all individual and social aspects are highly affected and among them Education was not aside from this phenomenon and maybe a smooth revolution is creating which aims at the basis of traditional teaching and considering principle components and its purposes, bring new learning opportunities. The most important purposes of the Education and which already remains unachievable is focusing on individual talents and setting the ground for

suitable comprehensive training of the talents. In the new Education system, the teaching-learning process is student-oriented and the learner him/herself is responsible for his/her learning. Teacher's role is important in this regard and it is that considering the existing situation, how we can choose the aching method in a way that we consider individual talents and cause effective and deep excavating learning The results showed effectiveness of active teaching methods in comparison with traditional methods and in achieving teaching-training objectives and creating creative thinking in students and achieving to more effectiveness, use active teaching method better.

#### REFERENCES

- [1]Safavi, A, Teaching methodology principles. Tehran: **1997**, Moaser Publication
- [2]Parvand, M, Curriculum design. Tehran: **1990**, Soheyl Publication
- [3]Shoarinezhad, A. A,Dictionary of behavioral science. Tehran: **1985**, Amir Kabir Publication
- [4]Agazadeh, M; Ahadiyan, M, A guidance of new teaching methodologies, **1999**, Ayiz publication
- [5]Anderson, L. D, Increasing teachers' effectiveness in teaching process. **2001**, Translated by Amini, M. Tehran: Madreseh
- [6]Keyvanfar, M. An investigation of the amount of using active learning in success of Isfahan fourth level primary school students in Science lesson. **1991**, Isfahan research association
- [7]Nasrabadi, H. A, Norouzi, RA, Teaching approaches and new paradigms, Esfahan: **2005**, Esfahan University Press