

Teachers' Effectiveness in Asking Classroom's Questions and Their Interaction with Student Responses and Questions

Haroon Mohammed Tawarah

*Al-Balqa Applied University, Ashouback University College, Ashouback, Jordan
Mobile: 0777774520; E-mail: Htawarah55@gmail.com*

KEYWORDS Scientific Capabilities. Accumulative Questions. Educational Strategies

ABSTRACT This study aimed at evaluating teachers' effectiveness in asking classroom questions, receiving the questions, and interaction with students' responses from the teachers' point of view. The study sample consisted of (110) male and female teachers from Ma'an Education Directorate, 50 male and 60 female teachers in the academic year 2011-2012. To achieve the study objectives, the researcher developed a questionnaire consisting of (33) items distributed in three domains: asking the questions, receiving the questions, and the interaction with the students' responses. Questionnaire reliability revealed that the overall means of teachers' effectiveness is at medium level, while the domain of asking and the interaction with the students is at a high level and with the same degree for both of them, while the domain receiving the students questions came at the medium level. Moreover, results showed that there is no statistical significance attributed to gender, education qualification and the interaction between them at significance level of $\alpha = 0.05$ on the questionnaire fields and on the questionnaire as a whole.

INTRODUCTION

Teaching is a continuous activity that aims to promote teacher competency and skills in engaging students in the learning process through asking questions, and to achieve students' learning in its different aspects through multiple activities in which the teacher and the learner engage by the silent and linguistic communication means (Al-Heeleh 1999).

Developed countries are interested in this side of teaching, and gave the greatest concern to teacher in training and educating, with the belief in their responsibility in the success or failure of the educational system. This system demands dealing with all teachers regardless of their characteristics and to make them familiar with teaching and learning strategies that provide wide and different educational horizons that reflect on their students (Abd Almohsen 1999).

Teaching perspective was modified by goals in response to the critiques aimed at it, because of its direct effect on creativity. The need to adopt teaching by strategies aiming to correct school's function as an alternative to the familiar in the traditional educational practices have emerged, because reality calls for learning educational strategies oriented toward resolving student problems (Al-Draij 2004). The strategy of asking questions as a skill that it is likely to develop through training and practicing by introducing each of its elements in a logical consequence, to facilitate its learning for the two types of students have emerged thereafter.

For those with scientific capabilities, it will be useful to develop high mental processes. Teacher will be able to motivate students at the lower level through different kinds of questions to help them to be active in class and be on track (Salem 1993).

Classroom questions were considered as an important skill in teaching because they reflect teachers' capability and competence in formulating and directing questions to students at a level that evokes their interest, and dealing with their reactions, since teachers develop their positive capabilities from anxiety and fear (Alkhaleefah 1996). Furthermore, teachers should know that questions are not successful unless they achieve the basic specifications including the appropriate wording, linking them with the intended purpose, and to be at the learners' level that evoke their interest (Jongmans and Beijaard 2003).

Classroom questions allow students' participation and motivate learning, also help keep teachers' utilities active and flexible. This can be an important advantage to achieve active learning though that could be basic. Under these kind of questions, we notice the rise of the follow up questions that explain and continuously refocus on the introduced materials (Jacobsen and Kauchak 1989).

Preparation questions as illustrated by Ausubel (1968), give another mode of questions that teachers ask their students in order to cover the topic of the new lesson in the next class. Such questions require students to answer, ei-

ther from the text book or from other relevant sources. Studies have confirmed their effectiveness in students' increased performance .

If classroom's questions represent a basic and vital side in the teaching process, then the teacher will receive student's responses and re-orient such responses. This will require high teacher competency who should know how to formulate questions at any new good level of thinking (Ibraheem 2004).

Classroom questions modes are subject to students thinking variation. First teachers may use accumulative questions modes, and follow them up by questions of thinking to achieve the intended purpose. It is possible to ask one question to many students, repeating it one more time, if it is not answered. This means it is in accordance with the studies that motivate the examination (Hamdan 1981).

Regarding the questions classification, they are multiple according to their importance and their prominent role in teaching. At the Ministry of Education, for the curriculum Bloom's classification was adopted and became the direct contact with the educational process for the curriculum, methods, goals and objectives .

The questions come in pyramid form, beginning with knowledge, followed by the individual's ability to retrieve what student has learned in a new method under the title, understanding, then dealing with high mental skills like application, analyzing, synthesis, and finally with evaluation (Qatami and Al-shaikh 1992).

Also, the need to return to questions reflect the skills at the critical thinking level, by referring to what Jacobsen (1989) says. High level questions can reinforce deep and critical thinking through applying multiple processes at the perception level.

To ask these questions there is a need to analyze or design the information as one of the important goals in enhancing high level thinking skills which demand providing of relevant notes in the classroom.

Regarding literature review, several studies have been reviewed by authors such as Wilen (2004) whose study is entitled, "Knowing the Teachers' Competency in Asking Oral Questions, and the Relation with the Teachers' Skills in Explaining the Lesson from Their Point of View." Results reveal that teachers' in explaining lessons have been influenced by the teacher method in asking oral questions during the lesson.

A study was conducted by Ali (2004) entitled "The Arabic Language Teacher Effectiveness in Questions Explanation Skill , Asking and Evaluating the Questions from the Students Point of View." Its finding revealed the presence of significant differences in asking and explaining the questions from student point of view. This can be attributed to gender variable and in favor of the female students.

Hoxeier (2003) conducted a study that aimed at knowing students' point of view regarding usage of questions, explanation skills and the extent of their relation with teachers' competency and effectiveness. Results revealed that using appropriate explanation means, and new methods in asking questions contribute to development of teachers' effectiveness, and teachers should focus on the types of questions instead of focusing on their quantity. In addition, the study revealed that most teachers do not deal effectively with student responses to their questions.

Wilen (2003) conducted a study with the goal to finding out results of the oral tests and their relation to teachers' method in asking questions while teaching. Results showed the presence of positive significant relation between teachers' effectiveness in asking questions and how they receive them, and students' ability to achieve. The study also showed the presence of differences with statistical significance regarding the teachers effectiveness in asking questions attributable to gender, and experience variables in favor of female teachers.

Swift (2004) conducted a study that aimed to know teachers effectiveness in lesson explanation skill and the questions asking by teachers and their point of view, and relation with their competence in practicing the lesson. Its results showed the presence of significant positive relation between teacher effectiveness in lesson explanation, method in asking questions, and their competence in teaching. The presence of differences attributed to the gender variable in favor of the female, while there are no differences in this effectiveness attributed to the experience, and the education qualification variables.

Furthermore literature review focused on teachers' competence in asking questions and links in dealing with student questions and responses. The study affirms the relation between asking questions and how they are received, and

the positive effect on the lesson explanation that leads to the teachers' developed effectiveness in the teaching skills that are followed by the development of students' achievement. Also, some studies confirmed the impact of some variable.

Research Problem

The advent of information and communication revolution has influenced every aspect of human's life including education. Education process, whether teaching or learning, has been enhanced greatly including engaging students in class room activities such as:

Receiving Questions that are Asked by Teacher, and their Responses: Questions asked in classroom are considered to be the nerve that connects learner with teacher, through teacher's direct and indirect methods that evoke thinking in the stated issues to students and other relevant issues.

Research Objectives

To investigate the relation between the theoretical aspects of education and the reflection on the practical reality.

To use scientific research as a scientific methodology, to reveal teaching strategies and to propose solutions.

To investigate the effect of some variables like gender and education qualification on the results of the research.

Research Significance

To reveal teachers' practices, by describing and analyzing the classroom from inside that designed by teacher in which the material introduced through asking and receiving the questions as an important element in the teaching and evaluating strategies to achieve specific and acceptable goals by knowing education reality

Research Questions

- 1- What is the extent of the teachers effectiveness in (asking and receiving questions, and the interaction with student's responses) from the teachers point of view?
- 2- Are there any statistical significance differences at the level ($\alpha=0.05$) in the degree of teacher evaluation regarding the extent

of teachers effectiveness concerning the several domains (asking and receiving the questions, and the interaction with the students responses) attribute to the two variables, the education qualification and the gender, and the their interaction.

RESEARCH METHODOLOGY

The researcher used the descriptive survey method by employing questionnaire as a major instrument to collect relevant data in order to achieve study's objectives.

Study's Populations

Population of study consisted of male and female teachers working in Ma'an public schools in school year 2011/2012, Number of teachers was 590 as shown in the Table 1.

Table 1: Distribution of the population according to gender and education qualification

Gender	Qualification		Total
	Bachelor and less	Higher than bachelors	
Male	166	94	260
Female	230	100	330
Total	396	194	590

Study's Sample

After excluding the survey sample, the study sample consisted of 110 male and female teachers. This forms 18.7% of the study population selected by the randomized stratified method in order to represent the population's point of view (Table 2).

Table 2: Distributing the study sample members according to gender and education qualification

Gender	Qualification		Total
	Bachelor and less	Higher than bachelors	
Male	32	40	72
Female	18	20	38
Total	50	60	110

Study Instrument and Its Validity

The researcher has developed a questionnaire to evaluate teachers' effectiveness in Ma'an

Governorate concerning their skills (asking classroom's questions) for the academic year 2011/2012 from teacher point of view. The questionnaire was developed after reviewing the theoretical literature and the relevant previous studies. To test and affirm its validity, the researcher has used it in three domains (asking and receiving questions, and dealing with the students questions) answering the items was gradual. According to Likert measure, number 5 represents the maximum score for the item, while number 1 is the minimum score, percentages were used as parameter to compare the degrees of teachers evaluation, 75% or more is a high evaluation degree, less than 75% and equal to 60% is medium evaluation degree, less than 60% is weak evaluation degree.

Instrument Consistency

Instrument consistency was calculated through its application on a survey sample consisted of 22 male and female teachers from the study population and from outside the sample.

Consistency was tested by the internal correspondence method according to Cranach Alpha equation, the value of the internal correspondence coefficient for the three domains and for the instrument as a whole was relevant as seen in Table 3.

Table 3: Consistency coefficients values of the study domains

Domain	Number of clauses	Consistency coefficient
Asking the questions	13	89%
Interaction with the students responses	10	83%
Receiving the students questions	10	82%
Total consistency coefficient	33	87%

Statistical Analysis

After determining the study sample and affirming the instrument validity and consistency,

the researcher has visited teachers at the training centers to discuss the instrument and how to be answered, after explaining the nature of the questionnaire, 110 were distributed to the sample members, two days later questionnaire were collated, and data was entered into computer, for analysis, data processed by using the mean to answer the first question, and the two-way ANOVA analysis was used to answer the second question.

RESULTS AND DISCUSSION

First: study results regarding the first questions "What is the extent of the teachers' effectiveness in (asking and receiving the questions, and the interaction with the students responses) from the teachers point of view?"

Table 4 shows the means of teachers evaluation degrees for each of the three domains (asking and receiving questions, and the interaction with students responses) and for the questionnaire as a whole.

Table 4 reveals the presence of differences between the evaluation of teachers effectiveness level in Ma'an Governorate schools for their effectiveness level in three domains, two of them came at a high level which are asking the questions and the interaction with students responses by 75% (for each), while the third came at a medium level, which is the domain receiving the questions by 70%, and the level of the questionnaire as a whole came at a medium level by 73%.

The researcher believes that questionnaire as a whole came at the medium level because of the reflection of the three domains that two of them came at the beginning of the raising ladder 75% and the third at the medium level that reflected a medium result.

According to the researcher this result reflects the following:

Teachers capabilities level is an important side of teaching strategies, because of being far from follow up and surveying, and sufficiently

Table 4: Arithmetic means of the teachers evaluation degrees

No.	The relative number	Evaluation domain	Mean	Percentage	Degree of practicing
1	1	Asking the questions	3.76	0.75	High
2	1	Interaction with the students responses	3.73	0.75	High
3	3	Receiving the students questions	3.54	0.71	Medium
		The questionnaire as a whole	3.67	0.73	Medium

stand at the margin fearing from diving in the unknown.

The new development stages in school curriculum were not accompanied with the same importance with the equal level of training, that left the teachers as they were at a medium degree of development, and the regression of the supervisory role in the application and follow up may be attributed to the result. Result is consistent with the studies of Wilen (2003), Hoxmeier (2003) and Swift (2002). Researcher believes that the two domains (asking the questions and the interaction with the students' responses) came at the high level for two reasons:

Teachers' degree of commitment in asking questions and receiving responses skills are high because they receive greater concern than other skills in the training and teaching. Teachers' concern about these two domains reflect their care about maintaining a high level of classroom interaction management because they are the two pillars to attract attention and preserving a high degree of classroom control. This is in consistence with Wilen (2003), and Wilen (2009) studies, and contradicts Aoxmeier's (2003) study.

In addition, researcher believes that achieving the degree of 75% for each of them indicates teachers concern, in the same conditions in directing questions and receiving answers with the same importance, This means that teacher cares about domains with the same standard and competence. From the researcher's point of view, this indicates that the questions quality, wording and content reflect teacher's capability to understand students' reactions. This is consistent with Swift's (2002) study.

While the "domain receiving the students' questions domain" came at a medium level of 70% may be attributed to the humble level of the teachers' knowledge in this domain because it includes high skills, such as capability to formulate questions, understanding and judging. The other thing may concern an aspect of the applied educational curriculum that reflects a heritage the teachers want to have a voice in the classroom's environment.

Second: Students' results regarding the second question: "Are there differences at the level of ($\alpha=0.05$) in the degree of teacher evaluation regarding the extent of their effectiveness concerning the domains (asking and receiving questions, and the interaction with students re-

sponses) attributed to two factors, the educational qualification and gender and the interaction between them.

The dual variance analysis was used with statistical significance level 0.05 with statistical program SPSS. Results showed that there is no effect with statistical significance of gender, qualification and the interaction between them at significance level ($\alpha=0.05$) in all questionnaire domains as a whole since (P-value > 0.05). Maybe the cause of the absence of the effect is that the two genders receive training process and supervisory follow up at the same level. Furthermore, qualification and the scientific level are no longer with precise importance to distinguish between the teachers because of the multiple knowledge sources, and the more important is the teachers' efforts in investigating and inquiring. The result is consistent with Swift's (2002) study in the qualification and contradicts Wilen's (2003), and Ali's (2004) studies.

CONCLUSION

This study aimed to investigate the teacher's level in asking classroom questions from their point of view. After analyzing the (33) item answers including the domains asking and receiving questions, and interaction with students responses, it was found that the total level of the questionnaire is at the medium level, while the effect of the domain receiving students questions is medium, in contrast with the other two domains that are at a high level.

Furthermore, the study revealed the absence of gender or qualification effect, which they do not form a variance between the study sample.

RECOMMENDATIONS

Based upon the study's results, the following recommendations are set forward

- Providing more training programs to develop teacher's capability in the domain receiving the students' questions.
- Making teachers aware of the study's results, and to make comparison between student achievements in the study's region.
- Determining the items that were at the medium level for the three domains, and analyzing the indicators collected.

REFERENCES

- Abd Almuhsen A 1999. Aspects of some of the Japanese educational systems. *Journal of Education*, 7(4): 75-81.
- Al-Draij Mohammed 2004. Excellence in Teaching. *The Moroccan Events Newspaper*; May, 2004, P. 9.
- Al-Heelah M 1999. *The Educational Design, Theory Practice*. 1st Edition. Amman, Jordan: Dar Almaseerah.
- Ali Mosa 2004. *Arabic Language Teacher Effectiveness in Questions Explanation Skill*. M.A Thesis, Unpublished. Palestine: University of Alnajah.
- Alkaleefah, H 1996. *Planning for Teaching and the Classroom's Questions: New Methodological Vision*. Benghazi, Libya: Dar al-kotob.
- Ausubel D 1968. *Reading in School Learning*. New York: Rinehart and Winston.
- Hamdan M 1981. *The Practical Education, Its Concepts and Practices*. Beirut, Lebanon: Alresalah Establishment.
- Hoxmeier A 2003. *Questioning Techniques for Teachers: Teaching Reading -Thinking, and Listening Skills*. ERIC.ED284186.
- Ibraheem M 2004. *The Teaching Encyclopedia*. 1st Edition. Amman, Jordan: Dar Almaseerah.
- Jacobsen E, Kauchak D 1989. *Methods for Teaching: A Skills Approach*. 3rd Edition. Columbus: Merrill Pub. Co.
- Jongmans H, Beijard D 2003. Teachers' involvement in school policy-making and the effectiveness of schools' in-service training policy. *Teacher Development*, 6(1): 43-59.
- Qatami Y, Alshaikh K 1992. The classroom's questions and their wording. *Resalet Al-Mualem*, 15(3): 90-93.
- Salem M 1993. *The Basic Skill to Train the Teachers*. Amman, Jordan: Ministry of Education.
- Swift J 2004. Wait time and questioning skills of middle school science -teachers. *Roeper Review*, 9(2): 64-66.
- Wilens W 2003. A study of student teachers effectiveness in applying inquiry questioning skills. *Report Research*, 143(2): 222-231.
- Wilens W 2004. Questioning skills for teachers. What research says to the teacher? *Higher Education Management*, 21(3): 25-37.