

## Using “Pub Quiz” to Promote Participation and Active Learning in Prospective Teachers

(Penggunaan ‘Pub Kuiz’ untuk Menggalakkan Penglibatan dan Pembelajaran Aktif dari Perspektif Guru)

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### ABSTRACT

*It has become an established fact that whenever students and teachers are involved equally for learning purpose, the use of effective and innovative teaching strategies serve the purpose at its optimal level. Both active learning and classroom participation have been found influential by increasing classroom performance of the students. Having knowledge about the use of multiple teaching strategies and knowing ways to modify applicable strategies in attaining teaching objectives are sensitive, yet crucial to apply in classrooms especially when it is subjected to prospective teachers. The current study was aimed to explore the effect of pub quiz activities on active learning, classroom participation and academic performance of prospective teachers that emphasized the idea of integrating activities in teacher training programs. Sample of the study comprised 22 prospective teachers enrolled in Science course of one year degree program at a public teacher training institute. It was an experimental study that allowed integrating the use of multiple activities during eight weeks of running semester. A five point Likert type scale followed by an open ended questionnaire was used to measure the level of participation and active learning of prospective teachers; whereas their academic performance was measured through taking a test. Data was analyzed by using descriptive statistics and thematic analysis. The results supported the assumption of the study that integration of planned and relevant activities into teaching are not only helpful in pursuit of positively affecting the active learning, classroom participation and academic performance of prospective teachers but also helpfull in breaking the monotony of conventional ways of teaching and learning. The study recommended that adopting flexible use of activities accelerates learning process by ensuring active participation and learning on the part of students.*

*Keywords: Active learning; participation; academic performance; prospective teachers*

### ABSTRAK

*Sudah menjadi satu fakta bahawa setiap kali pelajar dan guru yang terlibat sama untuk tujuan pembelajaran, penggunaan strategi pengajaran yang berkesan dan inovatif untuk mencapai tahap optimum digunakan untuk mencapai tujuan pembelajaran. Kedua-dua pembelajaran aktif dan penyertaan di dalam kelas didapati mempunyai pengaruh dalam meningkatkan prestasi pelajar. Mempunyai pengetahuan tentang penggunaan pelbagai strategi pengajaran dan mengetahui cara-cara untuk mengubah suai strategi yang terpakai dalam mencapai objektif pengajaran adalah penting digunakan di dalam kelas, terutama kepada bakal guru. Kajian ini bertujuan untuk meneroka kesan aktiviti pub kuiz kepada pembelajaran aktif, penyertaan di dalam kelas dan prestasi akademik bakal guru dengan mengintegrasikan pelbagai aktiviti dalam program latihan guru. Sampel kajian terdiri daripada 22 bakal guru yang mendaftar kursus Sains bagi program ijazah satu tahun di institut latihan perguruan awam. Kajian ini ialah satu kajian eksperimen yang mengintegrasikan penggunaan pelbagai aktiviti sepanjang lapan minggu semester pengajian. Soal selidik dengan skala Likert lima mata yang berakhir dengan terbuka digunakan untuk mengukur tahap penyertaan dan pembelajaran aktif bakal guru, manakala prestasi akademik mereka diukur melalui ujian yang dijalankan. Data dianalisis dengan menggunakan statistik deskriptif dan analisis tematik. Dapatan kajian menyokong andaian bahawa mengintegrasikan aktiviti yang dirancang dan relevan dalam pengajaran bukan sahaja mempengaruhi secara positif pembelajaran aktif, penyertaan di dalam kelas dan prestasi akademik bakal guru, tetapi juga membantu dalam memecahkan cara konvensional pengajaran dan pembelajaran. Kajian ini mencadangkan supaya mengamalkan secara fleksibel penggunaan aktiviti pembelajaran aktif bagi mempercepatkan proses pembelajaran dengan memastikan penglibatan aktif dalam kalangan pelajar.*

*Kata kunci: Pembelajaran aktif; penglibatan; pencapaian akademik; perspektif guru*

### INTRODUCTION

Effective teaching can be ensured with the use of multiple activities that are contrary to the use of monotonous ways

of teaching in classrooms (Gladwell 2008; Kristoff 2009; Flech et al. 2010). Amongst many of the teaching methods being employed to teach effectively, lecture method seems largely debatable due to its drawbacks of making

learners passive as well as less participation in classrooms (Steinert & Snell 1999). The reason why lecture method faces the criticism at large is, its blindly use for teaching many subjects at varied levels. Naming the use of lecture method is parallel to be used traditional and rigid teaching methods that are often considered patterned and stifled in prototypes of pedagogical modes. Even being monotonous, conventional, and frequently used, lecture method is yet found as a preferable teaching method, particularly, while teaching to adult learners (Malik 2011).

There is an availability of stockpile of research studies previously conducted with the purpose of comparing the effectiveness of many of the teaching methods on the performance of the students (Mehmood & Rehman 2011; Rehman et al. 2011; Hussain et al. 2011). Pursuing the use of flexible teaching methods does not seem to be an easy task due to the excessive use of lecturing as well as adopting ways of one-way teaching. Lecturing is meant to keep the mode of teaching one sided by abiding the involvement of students and letting teacher rule the classroom. It further keeps little role of students left to play in classroom and reduces classroom participation by students (Green-Demers & Pelletier 2003).

Active learning and healthy participation by all the students throughout the teaching-learning process is always required given the fact that it cultivates in learners a curiosity to acquire advance but relevant knowledge. Besides achieving the planned outcomes of each lesson by the teacher, arousing the urge among students for learning new concepts has remained a necessary caveat of effective teaching. When the purpose of teaching becomes challenging by achieving quality level of students' involvement then it does not seem befitting with the use of repetitive practices in teaching in form of relying on usage of one or limited teaching pedagogies. Secret of effective teaching is hidden under the idea of bringing diversity into teaching with the assistance of giving due weightage to the use of blend of the teaching methods and techniques (Creswell 2008). These methods and techniques incorporate unconventional ways for instilling new lease for learning amongst students. The evidence from the range of attention span of a student during lecture i.e. 15-20 minutes of a lecture (Bligh 2000) does further compel to avoid lecture method for teaching.

Once drawn upon the notion that the usage of multifarious methods and techniques yield different outcomes that are peculiar to the priority and purpose of teaching at hand, the decision on selection of the appropriate strategies is sensitive as well as demanding. Selecting relevant techniques for teaching is crucial in achieving the objectives of teaching-learning process, level of students and subject also topic being taught.

The use of multiple strategies requires teachers to possess relevant knowledge not only to select befitting methods but also to apply those at required time when needed. Similarly the usage of these strategies results differently among students due to varied perception or

intelligence level of learners. Learners are polished with so many skills with the practice of active participation in classrooms, one reported that outcome of engaging students in learning process is to make them creative as a problem solvers in realm of their specialised fields (Biggs 2007).

One of the best ways to involve students in the teaching and learning process is through the promotion of active learning (Benek-Rivera & Matthews 2004; Dorestani 2005; Sarason & Banbury 2004). Active learning is defined as an instructional strategy to involve students in learning process so as to develop sense of responsibility (Bonwell & Eison 1991). According to Chickering and Gamson (1987), the essence of active learning is that it involves students in learning process by allowing them to analyze and reflect the activities that are taking place in the class room.

According to this concept, students should take responsibility of their own learning. It becomes apparent that healthy and active participation by learners yield in multi-faceted outcomes, if at one place involvement in such activities ensures two-way teaching-learning process. Similarly it provides learners to investigate the learning process from their very spectrum. Although these are two different things, however the crux is students' involvement and participation in learning process that takes place in classroom.

Active learning helps increase the classroom participation level of the students, thus turning them into active recipients of knowledge. Many strategies can be used to promote active learning as well as classroom participation by students including brain storming, quick surveys, think pair-share, formative quizzes and discussion (Lammer & Murphy 2002). The use of these strategies is subjected to the purpose of teaching primarily. In addition to increasing classroom participation level, active learning also helps students to understand the concepts and retain learning for a long time (Mustapha & Rahman 2001). On the other hand, participation in classroom is an important indicator of active learning as well as for the students motivation (Machemer & Crawford 2007).

The idea for knowing the effect of interaction and participation on learning in classroom was first presented by Vygotsky (1978). He emphasized that students learn better through two way interaction and participation in classroom. It opened up avenues for many research studies to investigate and defined the process of participation. The other valuable variable of the study at hand is participation of students into teaching-learning process. The term "participation" has been defined differently by different researchers.

Dancer & Kamvounias (2005). They described it as an active engagement process with five classroom oriented components, while Fritschner (2000) has described it as a transformative process from mere listeners to speakers.

The methods of class participation may involved sharing ideas, responding queries, asking questions, stimulating discussion, working collaboratively with peers and offering volunteer services for tasks assigned

in classroom (Wambach & Brothen 1997). Such an involvement by students in classroom activities is always observable and can be considered as indicators of class participation, when purpose remains to define classroom participation explicitly. The degree of active and healthy involvement of students in classroom activities seems dependent on the motivation level of students to perform multiple tasks by following their timelines and rules. It is an established fact that the students who are motivated are ultimately supposed to show substantial part into activities (Machemer & Crawford 2007).

The need of active students’ participation is emphasized not only for the attainment of educational goals, also for the personal development of individuals for future life (Tatar 2005). If any individual is found with the adequate level of satisfaction and persistence with self as an the outcome of active participation during classroom sessions it further provides chances for active learning (Astin 1993).

Bruner (1961) stated that the learner who is involved in active learning has capability to recall information quickly. This leads towards the assumption that classroom participation and active learning are closely interlinked with each other. Similarly, both of these have a direct and positive effect on students’ learning (Meyers & Joes 1993; Ryan 2000). For the sake of involving students in classroom activities several participative activities including group work (Bonwell & Eison 1991), discussion method (McKeachie et al. 1986), quizzes (Willmott 2001), debates, use of drama, role play and simulation methods and peer teaching have been reported as frequently used for a long time.

The concept of to use television show, Turner (2008), and makes use of quizzes in biology classroom in order to improve learning and achievement of students provide basic knowledge of the ways of pedagogical integration necessary to effective teaching. All of these alternative techniques have a powerful impact on learning that persuades one to adopt the most suitable method while teaching scientific topics in particular. The emphasized need of arousing students’ interest and engaging them in classroom activities, the extent of proper selection of relevant quiz becomes a sheer responsibility of teacher.

Quizzes are being used currently in many classroom settings and previous research studies shows how certain quiz activities have a strong influence on several academic domains including better performance of students (DeSouza & Fleming 2003; Maki & Maki 2001), increased classroom participation (Nevid & Mahon 2009), abated procrastination among students (Perrin et al. 2011), better understanding of given material (Marchant 2002), and improved attendance in class (Wilder & Flood 2001). Although many empirical researches have proved effectiveness regarding quiz pedagogy in improving performance of students, however, few empirical evidences are available for usefulness of this technique in the hunt of achieving improved classroom participation with enhanced active learning.

Quizzes are elicited in dimension of the teaching-learning process with objectives of a healthy session, however, the choice of right quiz in its form and material calls expert judgement by teacher. Since each learning session is said to be unique in its purpose, the use of pub-quiz is a recommended idea that allows the teacher to adopt context related and purposive specific quiz activities peculiar to the session objectives. The primary purpose of this study was to determine whether pub quiz activity helps to improve class participation. The second purpose was to determine that could this activity be helpful in developing active learning among prospective teachers and the last objective of the study was to determine the effectiveness of the proposed pedagogy as a whole. To achieve our target “pub quiz” technique was preferred on the use of traditional teaching methods. In order, to achieve target of the study a modified form of quiz activity was used. This was an integration of traditional pub quiz in classroom setting. This is an effective tool for learning in informal environment, yet in formal setting, in order to improve students’ factual knowledge (Klapa 2009).

A modified form of quiz activity was chosen because of its explicit and proven benefits from the idea led by many studies that affirm the use of quizzes as powerful technique for improving classroom participation and active learning and long term retention of content (Chump et al. 2003; Jones 1984; Wilder et al. 2001; Johnsom & Kiviniemi 2009). Pub-quiz was conducted during class sessions. Students were divided into different teams where they competed against each other on responding to factual knowledge and problem solving questions. These sessions were arranged as alternative to traditional teaching methods routinely practised in classroom. The reason to prefer the use of this technique was its newness in local context plus the advantage of applying it in informal settings, lighten classroom environment, allow the students to participate actively, share ideas, show knowledge, and also helpful for teacher to get insight into students’ learning (Siti et al. 2010). The other reason that compelled the usage of this technique appeared its easy going nature for controlling patterns of classroom participation, as it has been assumed that in spite of using multiple ways, only half of the students took part in activities, while the other half remain passive even if teacher tried to motivate the students during teaching.

#### RATIONALE OF THE STUDY

This passivity was one of the major reasons that compelled me to do this research. Many times students of my class did not work properly, they used to come with incomplete assignments, did not actively participate in class and tried to avoid class tasks. This class was composed of twenty five students initially but during course three of them dropped out due to the personal reasons. All of these students had completed sixteen years of education and were enrolled

to get diploma in Bachelor of Science (B. Ed, science) course of teaching of biology. Initially the teacher started class with regular lecture but response of students was not good, they were not paying attention or participating in the class with zeal. To diagnose the problem teacher asked them many questions regarding their aims and aspirations. These discussions helped teacher to find out real cause of the problem. The statements given by students were as follows. One of the students (case 07) said that,

I am least interested in studying because I am here to kill time until I get better job.

Another student (Case 16) stated that,

There is no point of studying course of "teaching of biology" as I already possess postgraduate degree in this field.

Another student (case 09) stated,

I was free so I decided to enrol in this course instead of sitting idle.

One more statement (case 21) was very interesting,

I took admission in this course that it requires least reading and assignment and any one can do it without much effort.

Another statement (case 13) was,

Teacher just gives us notes and we will cram them near exam, there is no point of doing reading assignments daily, we are not accustomed of it.

All of these responses helped the teacher to find out a real cause of a problem, they were not participating in class because they were least interested. They were not ready to become active learners because they were not aware of the importance of the subject. They were demotivated because they were here just to get degree not to learn. All of these were alarming signs which bode ill for the future of teaching. So the researcher decided to tackle them by changing teaching pedagogy. A full session was arranged to clarify importance of this course, they were explained that this course was not aimed to teach them content of the biology which they had already learned. It was about learning "art of teaching." Although they showed that they had understood its importance, however their careless behaviour was apparent by low participation in class. They were not completing their reading assignments on time and were not ready to read auxiliary material given to them. So after six sessions it was decided that alternative teaching pedagogy should be adopted for them. "Pub quiz" technique was adopted in addition to traditional lecture method.

Secondly it has been proved empirically that learning styles are affected by pedagogical technique other than lecturing. All of alternative strategies adopted by teachers require considerable thought and it demand thorough knowledge of multiple teaching strategies that can be used to promote active learning among students (Hyman 1980).

It is also a responsibility of teacher to create conducive learning environment that encourage students to participate in activities (Turner 2004). As all the students enrolled in this course were prospective teachers so it was necessary to introduce them with new and different teaching pedagogy that might help them in future in their own classroom.

#### OBJECTIVE OF THE STUDY

Objectives of study were as follows;

- a. To identify the motivation level of students for participation in class after going through pub quiz activity,
- b. Secondly to identify level of active learning in students after using pub quiz activity,
- c. Thirdly to evaluate overall usefulness of quiz activity.

#### POPULATION AND SAMPLE

Sample of the study includes all twenty five students enrolled in bachelor of education program in which they were offered a core course titled "teaching of biology." All of these students have completed sixteen year of education. This course is a pre-requisite for entering into the teaching profession and all of these students can be considered as prospective teachers also. Three of them dropped out of the class due to personal reasons, so the total number of the participants was twenty two at the end of session.

#### INSTRUMENT

A self-developed open-ended questionnaire was developed to take opinion regarding this activity was taken in two forms. First part of the questionnaire was composed of open ended questions. These questions were developed by researcher themselves and their validity was assured through expert opinion. This part of the questionnaire aimed to find out effectiveness of quiz type teaching approach in terms of "improved classroom participation" and "development of active learning habit."

Second part of the instrument was a Likert scale questionnaire consisting fifteen items. The Focus of this section was on overall evaluation of quiz activity. This questionnaire was adopted from Kappla (2009) and was modified. Few statements were added in it. Instrument was validated by taking expert opinion while pilot testing was conducted to find out its reliability. Value of Cronbach' alpha was 0. 59. As reliability value of alpha is effected by number of items included in the test (Nunnally & Berstein 1994; Streiner 2003) and as this instrument used by the researcher did contain only fifteen items so it might be reason for low value of Cronbach' alpha.

## METHODOLOGY

Pub quiz activity started after six weeks (out of twelve lectures) sessions had passed. In the seventh week a discussion session was arranged. All materials in the form of notes were handed over to the students for all upcoming classes. These materials were content specific including all facts, concepts, examples and knowledge that students were supposed to know after completion of the course. There were two classes per week and one day which was assigned for the quiz session. In addition, the students were also given a time frame that clearly showed time line of the activity and grading rubrics. They were informed that grades of these quizzes would be used for sessional assessment, all of them agreed on it. Although in first session they were told that every Tuesday will be a quiz day, however reminder of the quiz was given on every Monday and topic was also reminded. It was also clarified to them before every quiz that its marks would be included in sessional assessment. All of these activities were performed in two hours class in a day.

In seventh week students were asked to make small “pub quiz” teams having minimum six members in each group. Every team was advised to work autonomously, however intra-team cooperation was appreciated. In a quiz-based session, 10-15 questions were given and one minute for every question was given. After completion of quiz sheet each team was directed to exchange their sheet with other group. A quiz-key was passed to every group so that they can assess and mark quiz sheet of other group. After completion of assessment activity, winner team was announced. Students were given a short lecture regarding given material and further explanation was carried out to clarify the concept. The incentive to participate was that its marks were included in sessional work so it created an environment for positive competition. All of these topics were included in final assessment and some questions from these quizzes were also included in final term paper. This is also served as motivator for students and encouraged them to participate in activity. Activity map is as follows;

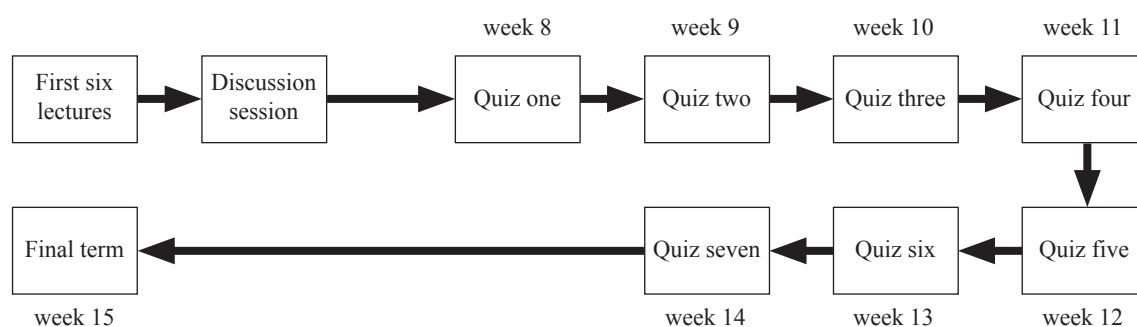


FIGURE 1. Diagrammatic representation of pub quiz activity

## DATA ANALYSIS AND RESULTS

Five questions were asked, all of these responses were taken on paper. After getting responses data was analyzed by using content analysis. Themes were extracted from their responses. Simple frequency had been used to show rate of response for each category that was emerged from each response. Question one was regarding taking opinion about this activity and its effectiveness for science classroom. For this the response ratio was hundred percent where 90% of the respondents were agreed that it should be adopted as teaching techniques, however they suggested that it should not be used very frequently. Other four percent stated that it should be adopted because it prevented cramming. Four percent of students added that it should be adopted because it helps to improve class attendance and developed punctuality. Two percent were not agreed to adopt in classroom.

Second statement was regarding their opinion about best part of the activity. For this question there were as many reasons to like it as many respondents were there, about twenty six percent of them indicated that working

in teams was best part of the activity and they liked it most. Other thirty percent stated that active involvement and classroom participation was best part for them. Other most liked aspect included immediate feedback (15%), independent learning (15%) comfortable and motivating environment (15%), and prior availability of notes (10%) and because it helped in getting prepared for final tests (10%). Fifteen percent didn't respond on this statement while there was one respondent who gave negative feedback. He stated very clearly that “I didn't like this activity at all.”

Third statement was about their worst experience regarding quiz activity. Such as a second question there were very diverse reasons to dislike this activity. Some of them are quite interesting. Majority of the respondents didn't respond (45%), while 20% of them complained about time shortage; other twenty percent stated that they disliked it because they had to read material by themselves. Twenty percent of the respondent indicated that sometimes they felt stressed. However, two responses were very remarkable; one student disliked whole activity because it was against her personality type (from her response it seems that she

is an introvert) and the other said that due to this activity she had to take responsibility of her own learning. In their own words;

I disliked every part of this activity because it compelled me to participate actively in the class

I disliked whole activity because it forced me to learn material independently

I disliked this activity because I have to read auxiliary material in addition to given notes so that I could participate in activity to full extent. Most of the time I did it at cost of my leisure time.

Fourth statement aimed to ask about their opinion as prospective teacher and future usage of this activity. Every individual learned and took different rules from this activity, good thing is that majority of them was excited to use this idea in their future classes, although they had different reasons for that. Thirty percent of the respondents said that they would use it because it helped in developing the skill of independent learning, while

forty percent of respondent stated that they would use it because it helped in active participation and involvement in class. Fifteen percent of the students did not respond while other five percent stated that as it was creative idea so they would combine it with traditional teaching methods to improve learning. Ten percent of the respondents stated that they would use it because it helped to make classroom environment learning oriented.

In fifth and last statement they were asked that whether this activity was in accordance to their own learning style or not? For this statement the results are very thought provoking as seventy five percent of respondents stated that this teaching approach did not match with their own learning style, everyone has same reason and that was; they were accustomed of cramming, memorization and reproduction of content during exam. Fifteen percent stated that although it didn't match with their learning style but they adopted it because it helped them in effective learning.

TABLE 1. Categorize and percentages of themes emerged from thematic analysis

Question 1		Question 2		Question 3		Question 4		Question 5	
Category	%age	Category	%age	Category	%age	Category	%age	Category	%age
Best teaching approach for science class	90%	Active involvement & classroom Participation	30%	Time shortage	20%	Future usage	100%	A new learning strategy	75%
		Foster team work	20%	Stress	20%				
		Immediate feedback	15						
		Independent learning	15						

#### QUALITATIVE DATA ANALYSIS

An evaluation questionnaire for quiz activity was used to collect data regarding effectiveness of whole activity. Descriptive statistics was used to analyze data; results are shown in Table 2.

Although the opinion was taken on five point Likert scale, however, for sake of convenience and understanding the first two options i.e., strongly agree and agree were combined into one category of 'agree' while strongly disagree and disagree were combined into one category of 'disagree.' It is evident from table that 65% of the students were agreeing that pub-quiz type approach had forced them to engage with topic more than traditional method. About 56% of the respondents were agreeing that this technique is helpful in fostering team work. On the other hand 65,

69 & 69% of the respondents were of the opinion that pub-quiz activity does not give extensive knowledge, give less time to take notes and require more preparation than traditional methods respectively. All of them i.e., 100% positive response was achieved on award for winner, all the respondents were agree that there should be a reward system for winner team and individuals. About 34% of them agreed that it helped them in preparation for final term exam, while 43% of them agreed that pub-quizzes helped them to understand the topic. In addition to this, 56% of the respondents agreed that this activity compelled them to participate in the class; while other 39% were agreed that this activity motivated them to perform better. 52% were agreed that this activity helped the classroom to become learning oriented, complimentary to this, only 30% of them agreed that this activity had made classroom environment

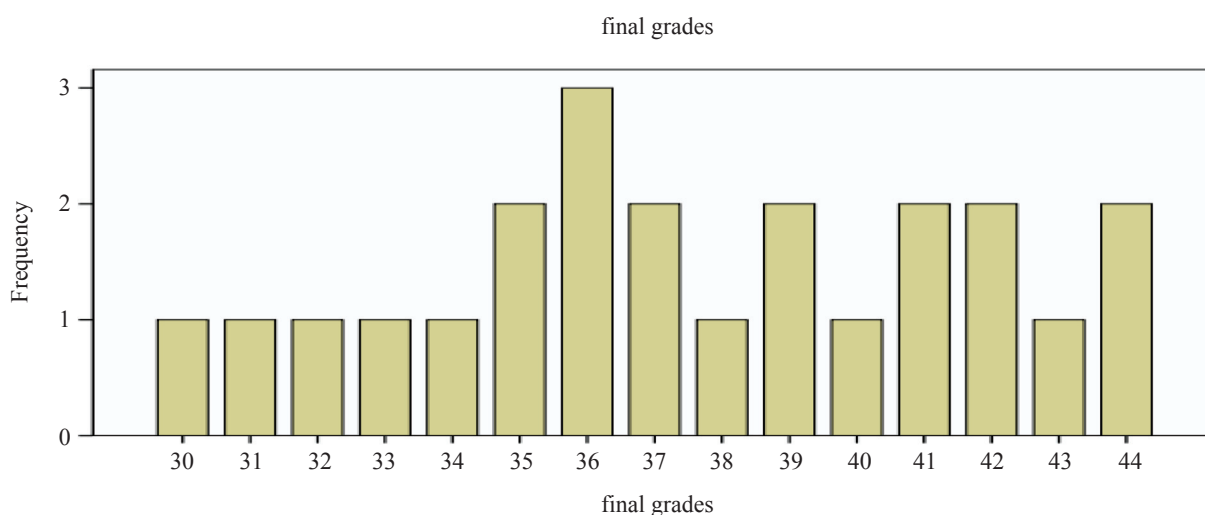
TABLE 2. Evaluation questionnaire for pub quiz activity

Sr #	Statement	A %	N %	DA %
1	Engagement with topic	65	21	13
2	Fosters team-work.	56	26	17
3	Plenty of information	65	4	30
4	Difficulty in taking notes	69	8	21
5	Usefulness of provided material	52	39	8
6	Requires more preparation	69	13	17
7	Reward system	100		
8	Better preparation for tests and exams	34	39	26
9	Addition of marks in final grades	52	17	30
10	Promotion of self-study and independent learning	56	13	30
11	Improved overall understating	43	34	21
12	Increased classroom participation	56	30	13
13	This approach motivated me to perform better	39	39	21
14	Improved class room environment	52	39	8
15	Comfortable and pleasant classroom environment	30	47	21

comfortable for them. Respondents were divided into two groups regarding statement on addition of quiz marks in final grades and about 52% of them agreed on this.

As the teaching and learning process is all about learning and retaining content so aim of every activity is to improve academic performance of the students. Although this study targeted to improve class participation and promote active learning, however the basic purpose of all effort was to improve academic performance of students. This aspect was kept in mind while planning all activities and focus was restricted to content learning. Many previous studies have proved that quiz activity not only improves

class participation and active learning but also has a positive effect on academic performance of the learners (Johnsom & Kiviniemi 2009; Geist & Soehren 1997; Roediger & Karpicke 2006; Marcell 2008). So to find out effect of this activity on students' academic performance their scores in final term were also analyzed. The scores in mid-term examination were below average, however, the table indicates that students' scores were improved. Range of scores is shown in following graph, indicating that maximum number of students fall in above average category.



#### DISCUSSION

Focus of this study was to improve class participation and develop active learning habits among students. As stated earlier that although it has been assumed that class

participation and active learning are correlated to each other, however little empirical evidences are established till now. Although this study was carried out to an action research to solve problem of researcher's own class, however it has global value as well because it is an effort

to provide empirical evidence that class participation and active learning are not only positively correlated but can also be improved by using diverse teaching pedagogy like quizzes. Results of this study are in accordance with previous studies (DeSouza & Fleming 2003; Maki & Maki 2001; Townsend & Wheatley 1975; Drucker & Norton 1951; Wesp 1986; Marchant 2002; Wilder & Flood 2001). Results of both qualitative and quantitative parts of the instrument are consistent. However many respondents suggested that pub-quiz technique should be blended with other teaching methods and should not be used as only teaching strategy. Most of them stated that it must be used with lecture method. The reason behind this might be that many of these students came from annual system, where lecture method is common. So it became their preferred teaching approach as indicated by Sajjad (2010). The results of second open ended question show that our first and second objective was achieved, as 15% of the respondents agreed that it did foster them to become independent and active learners. However, there was one student who said "she did not like this activity at all." The reason for this might be her personality type. She may be introvert and solo learner who do not like to interact with people as indicated by Furnham and Medhurst (1995) that the students who are extroverts are more interactive in classroom settings. There might be many other factors like low emotional intelligence (Landau & Meirovich 2011), low self-efficacy (Pajares, 1996; Schunk, 1995) compelled to take degree, no interest in particular subject etc, however the researcher was unable to probe further due to limitation of open ended questionnaire. The same student did respond for the third statement regarding worst part of the activity that:

I disliked every part of this activity because it compelled me to participate actively in the class (C3).

Although this is a negative statement, however it is self-explanatory regarding achievement of our target. This shows that a student who was not even ready to be in class was compelled to participate. Maybe she did not get much of the output in terms of numbers, however it can be assumed that at last she did participated. This statement is supported by the responses of second question where 15% of them were agreeing this activity fostered group work. The other response for third question was also remarkable and self-evidently showing that researchers were able to achieve target of promoting active learning habit. The respondent stated that:

I disliked this activity because I had to read auxiliary material in addition to given notes so that I can participate in activity to full extent. Most of the time I did it at cost of my leisure time (C11).

Another response also explicit the success of pub-quiz activity i.e.,

I disliked whole activity because it forced me to learn material independently (C18).

As secondary aim of this activity was to introduce those students who were going to be prospective teachers with alternate and diverse teaching pedagogy, so they were also asked about either they will use it in future or not. All of them responded that they would like to practice it in class, although there were many reasons for choosing these activities but few responses like;

I will practice it with my students because it helps to involve all of them in learning process (C2).

I would prefer it because it breaks monotony of teaching (C10).

I would love to do it because it motivate students and they all are allowed to participate (C22).

I would prefer it because it helped me to retain content for a long period of time and I assume that same situation will happen with my students (C5).

I would adopt it so that students may develop a habit of self-learning (C15).

All of these responses also indicate towards achievement of our target. These responses once again indicate that pub quiz activity helped them to become active participant as well as it also developed habit of active learning with better academic performance. So it can be concluded that pub quiz activity is a useful teaching pedagogy for promoting active learning and improving class participation among adult learners. It is also a best strategy to improve academic performance of the students, so the teachers should consider its importance and practice it in their teaching and learning process.

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