

Tertiary teaching dilemma and its remedy: (A case study on the interactive pedagogy adopted by the University of Education for teacher education)

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ABSTRACT: *The tertiary teaching methodology prevalent in our education system in teacher education has been one of the major factors causing a dilemma not only for teacher educators but for prospective teachers as well. The present study is about exploring the way to clear this dilemma in teacher education through a case study (conducted on the students from sessions 2005 to 2010) on a recently established public sector university (established after keeping in view the growing demands in teacher education) and a questionnaire for the outgoing graduates of this university. The thing that distinguishes this university from its well established competitors is the interactive pedagogy springing from the mission statement of the university, and implemented both in principle and practice. This pedagogy ranges from the seating of the learners, the active involvement of learners, mobility of the teachers, and employment of cooperative learning strategies to the assessment based evaluation. The use of interactive strategy generates more autonomous learning and not only enables instructors to get academic objectives achieved but satisfy the learners who find learning interesting and practical in their professional life. Further, these areas make the learning environment conducive enough that the passing out graduates realized its blessings the moment they entered their professional life. Since the data collected is based on participatory observation of the case in study, the results may validate the usefulness of this pedagogy at graduate/post graduate level in teacher education and may improve upon the plight of teaching at tertiary level, if adopted widely.*

Keywords— *Tertiary level teaching, teacher education, interactive teaching, dilemma, pedagogy, cooperative learning.*

I. RELATED WORK

The (Adams, 2000) original concept of “university” was not necessarily one of special community development, but rather a quest for discovery and scholarly excellence. Even

before the impact of Greeks and Romans, Confucius articulated the vision that all citizens

could be engaged in the investigation of higher level thinking and more remote ideals than were present in their otherwise utilitarian lives. When Plato and other ancient Greeks established their secluded and monastic institutions of higher learning, they removed the “groves of academe” (Clinchy, 1994) from mainstream education and, consequently, from such mundane realities as accountability. As Angelo (1990) suggests, “Teaching without learning is just talking. It is common practice, nonetheless, for faculty to assume that when we are...talking, our students are learning...” (p. 75). Similarly, Erickson (1984) contends that “teaching, therefore, involves considerably more than detailing the instructional techniques of telling things to students” (p. 2).

Lecturing is a common teaching strategy at tertiary level especially involving large classes and in teaching courses like introductory statistics. Some people may argue that it is the traditional form of teaching at tertiary level and, therefore, is expected by students and lecturers alike. Students and lecturers often have the same mental image of how the lecture method works: the lecturer, as a figure in authority talks and writes something on the board and the students listen and take copious notes of what is written on the board (Middendorf & Kalish, 1996). McIntosh (1996) points out that lecturing is frequently a one-way verbal communication unaccompanied by discussion, questioning or immediate practice. However, in recent years statistics educators have gradually incorporated active learning strategies in their classrooms (Gunawardena, 2002). Research and anecdotal evidence strongly support the claim that students learn best when they actively participate in their learning (e.g. Bonwell & Eison, 1991). This active learning strategy involves ‘*providing opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues, and concerns of an academic subject*’ (Meyers & Jones, 1993). Instead of traditional lectures where teachers disseminate information to students for them to remember, lecturers should be encouraged to introduce active learning activities where students would be able to construct their own knowledge. A form of active learning

favoured by many educators who are concerned about improving education regardless of discipline or level of instruction is the cooperative learning strategy (e.g. NCTM, 1991; Johnson & Johnson, 1994; Garfield, 1993; Felder & Brent, 2001).

The greater the degree of interactivity, the more likely we are to witness practices such as collective reflection, reflective scaffolding - characterised by two-way dialogue and active participation - greater opportunities for pupils to influence the direction and content of lessons, and more collaborative co-construction of knowledge. (Kennewell et al., 2000). Research has also shown that people's learning styles differ; most students absorb and retain visual material more readily than other kinds, but the world is full of ear-learners and those who learn by physical practice. The average learner retains about 20% of what is heard, 40% of what is seen and heard, and 75% of what is seen, heard, and done (Reisman & Carr 1991; Yager 1991).

A whole class approach enables the teacher to interact more with each pupil; adapt activities quickly in response to pupils' responses; use errors and misconceptions as a teaching point for the whole class and keep pupils on task for longer periods of time (Muijs & Reynolds, 2001). The selection of good examples to be presented to a learner is often modeled using a teaching device (teacher) that is assumed to be benevolent by selecting examples expediting the learning process (see, for instance, Angluin and Krikis, 1997; Jackson and Tomkins, 1992; Goldman and Mathias, 1996; Mathias, 1997).

Lewis and Duffy (1996) point out, "Good teaching is in vogue again..." If effectiveness and inspiration in teaching are, in fact, "in vogue," then the use of multiple teaching methodologies at the tertiary level may come to be seen as not just a pleasant diversion for students and instructors, but a necessity in optimizing the student learning that Plato and many other master teachers have sought.

Types of interactive and participatory activities (Adams, 1981) are varied, and, occasionally, more appropriate to some disciplines than others. However, the informed use of multistrategic methods is usually less limiting than liberating for the student and the teacher. For example, Ehrmann (1995) cites lessons in diverse disciplines such as psychology and engineering that incorporate characteristically constructivist strategies such as peer teaching and jigsaws, situational inquiry studies, and collaborative projects. Similarly, Mason (1988), Sherman (1996), and Travis (1996) advocate tertiary teaching which incorporates opportunities for student collaboration in case studies, peer tutoring, and even test feedback, while Hamachek (1969) and Crow (1980) offer a veritable dictionary of strategies from audiovisual lectures and on site visits, to writing exercises.

Henderson (1969) is yet another author who focuses on a multitude of teaching strategies including the use of sociodramas, debates, clinical practice incidents, buzz groups, experiments, and field excursions. Theories supporting the use of these alternate strategies incorporate some basic maxims, namely that learning most effectively proceeds from (1) known to unknown, to known presentation of material, (2) simple to complex back to simple skills, (3) whole to part to whole concepts, and (4) concrete to abstract thinking skills. Moreover, the globalising phenomenon of information and communication technologies (ICT) is a distinct characteristic of modern times. The speed and immediacy of ICT, coupled with opportunities for increased information flow through multiple routes of communication, suggest that we are living in a time of unprecedented change, with ICT affecting the way we live and function as individuals and as a society (Castells, 2004).

Student interaction makes cooperative learning meaningful. During discussions, members are given the opportunity to demonstrate their knowledge of what they have learned as well as allowing for clarification, questions and expressions of opinion (Tinzmann et al., 1990). Learning by means of small group activities also increases students' motivation because they feel more positive about completing a task successfully working with others than by working individually (e.g. Johnson *et al.*, 1991; Nichols & Miller, 1994). Studies carried out by many researchers in various disciplines have reported about students' positive attitudes toward cooperative learning (e.g. Schultz, 1989; Nichols & Miller, 1994; Giraud, 1997; Magel, 1998; Felder & Brent, 2001). In a review of studies dealing with the impact of cooperative learning in science, mathematics, engineering and technical classes at tertiary level, Springer *et al.* (cited in Cooper & Robinson, 1998) report that students exposed to small group instruction produced better achievement in several types of tests and assessments than students taught in more traditional methods like lectures.

II. VISION AND MISSION OF THE UNIVERSITY OF EDUCATION LAHORE (PAKISTAN)

The University of Education was established on September 10, 2002 and it is the first specialized university in the field of Education in Pakistan. It aims to prepare dynamic leaders and practitioners in teaching, research and management having content excellence, pedagogical competence, commitment and integrity who may ensure quality and sustainable development at all tiers and sectors of education. The UE mission is to:

1. Offer nationally and internationally accepted academic programs to produce:
 - Classroom teachers to the need of public and private schools of various levels i.e. primary, secondary, higher secondary.

- Educational Leaders and Managers,
 - Educationists/Researchers/Curriculum Developers etc.
2. Provide certificate and degree programs through continuous and virtual education modes for teachers of tertiary level.
 3. Integrate pre-service with in-service Teacher Education.
 4. Make university a thriving hub of educational research and knowledge creation.
 5. Make the teaching profession attractive to the youth by providing quality programs, providing fast track degree acquisition routes to abler students.
 6. Equal emphasis on quality and quantity of the product.
 7. Emerge as Leader institution in various branches of education.
 8. Learn and contribute through linkages with national and international academic community and society.
 9. Take equity measures to provide quality education.

III. BACKGROUND, RATIONALE AND DISCUSSION

Bunking classes, getting bored, being absent minded, running after notes desperately, and appeasing teachers/examiners, have been the typical features of post graduate students whereas lecturing, having a monologue, exercising utmost authority in their classes and adopting assumptive approach about teaching and learning reflect upon the kind of role teachers have been playing at this level. Does this scenario ascertain the specialized or higher education? Does this provide experts in various fields of knowledge? Does this show we are progressing? Given a right to express myself freely, I would definitely say, “No”. This may sound rude but unfortunately this is what the dilemma is. Since post graduate studies aim at producing skilled, knowledgeable and expert graduates who are ready to step in their professional life to add to the progress of their society and their country at large, I apprehend that the lot we are producing for this purpose is lacking in many respects. It's not one person's responsibility rather a whole network of teachers, students, curriculum designers, policy makers, implementation bodies is involved.

The changing perspective of education demands a different picture of educational institutes. It founds this change on the grounds of more individual freedom and right to be enlightened with the expanding domain of knowledge. It calls for objective based education and making sure that the set objectives have been achieved or not. For the achievement of educational objectives it is important to have curriculum that meets national aims and goals and at the same time some effective methodologies are required to transfer knowledge to the students generally at all levels and particularly at post graduate level. This lays a heavy responsibility on the teachers who are expected to have understanding of both so that curriculum can easily be transferred to the learners after the achievement of objectives.

The achievement of this objective is made possible through the modern trends in pedagogy, among them the interactive mode of instruction calls for our attention. In this method there is a shift from teacher centered class to learner centered class and also a shift from teachers' role as the sole source of knowledge to a facilitator who makes sure that learners are learning. This can only be done if the teacher and students have close interaction among them giving enough space so that students voices are heard in groups, in pairs and also individually. This communicates the assimilation of knowledge and facilitates teachers in addressing the learning needs of learners in a timely fashion.

The awareness of this new paradigm highlights the dilemma of our post graduate teaching showing traditional practice of teacher centered method that allows less room for student teacher and student student interaction, gives maximum authority to teachers, ultimately disables critical thinking abilities of the adult learners at post graduate level. The students at this level are quite mature both physically and mentally, and want to satisfy their sense of inquiry. This does not mean the method is outdated now, but it simply does not provide complete solution for today's educational problems and challenges.

The current condition of our universities has further aggravated the situation. Graduates, who have received education from government colleges through teacher centered method, are not ready to accept their teachers to apply interactive techniques by expecting lot from the teachers to deliver in the classroom. They are found ready to complain against the system which expects the learners to participate more. The problem is severer in the classrooms where the teacher is to engage the students by introducing various pedagogical techniques to consummate the task.

Students are partly responsible for this unrest as most of the teachers are either not aware of the newly developed and required pedagogical techniques or are reluctant in adopting them. The traditional way of teaching has made them defensive about their own methodology because they find a refuge in it. As much depends on the teacher to keep the classroom environment conducive to learning because the learner is always at the receiving end and remains passive in an atmosphere where teacher himself / herself is not responsive and

update so far as the teaching methodology at post graduate level is concerned, it is becoming pertinent for teachers to adopt the new trends in teaching methodology.

As the policy making bodies of our education system are also updating themselves with the modern pedagogical trends, they are taking some revolutionary measures in this regard. For instance, present government has taken initiative to lay the foundation of new universities and University of Education (UoE) Lahore has proved to be a milestone in this respect. In the mission statement of this university, the key role of the teachers has been emphasized by suggesting them to practise interactive mode of instruction. This is not the end rather a beginning because having this mode in principle; it is constantly made sure that the faculty of this university practically adopts this in their classes. Also the newly recruited teachers are first given training for one year by the senior faculty members of the university who are equipped with latest and modern pedagogical skills and train the teachers in such a way that unconsciously they become part of this system as well as teach in the light of the training received. The researcher has been with the University of Education since its establishment and remained actively involved in designing curriculum, pedagogy and training the newly inducted teachers.

There is a perception among many educationists that interactive teaching has certain limitations in teaching most of the natural science subjects and those of social sciences as well. In this respect we find a different environment in the classes of these subjects at this university where there is a continuous interaction between teachers and students and among students. These reformatory steps have refuted the view about limitations of this new methodology. We find in bachelors as well as masters classes' students having equal opportunity to share and discuss their views with the teachers and their peers, to do things practically and independently in the given activities hence making their belief firm in learning by doing. This is not a practice in appearance rather it interprets the methodology adopted by the University of Education which ranges from the seating of the learners, the active involvement of students, mobility of the teachers, and employment of cooperative learning strategies to the assessment based evaluation in every semester.

Unlike other universities in Punjab, a classroom presents a different outlook at UE. It is surely not exaggeration but reality that much time is allocated to promote learning rather teaching. Even the sitting arrangement (figure 1) presents a different concept of teaching and a visitor can feel change at the first glance when he / she experiences to see the teacher moving around the class and having close interaction (figure 2) as well as trying to address all issues raised by the learners.. Teacher centered teaching (figure 3) is not encouraged where the teacher remains master of situation and students simply spend the allotted time in the classroom.

Figure: 1 Teacher student interaction

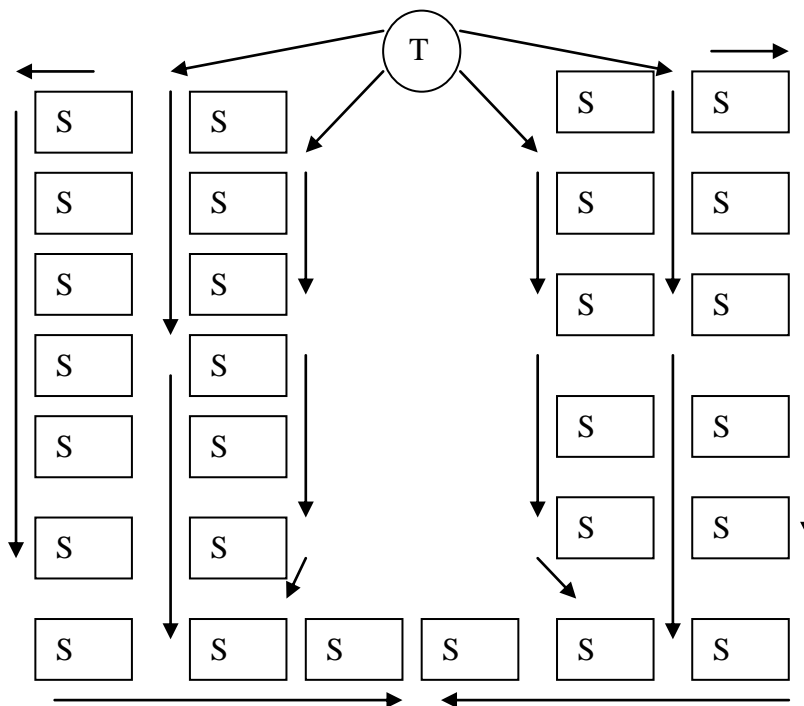


Figure: 2 Student- student and teacher-student interaction

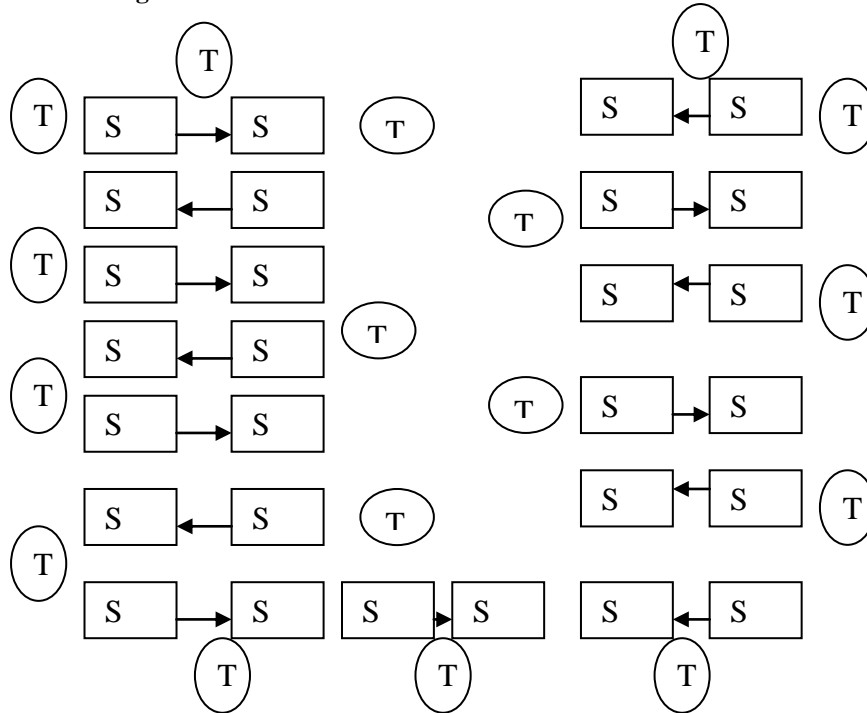
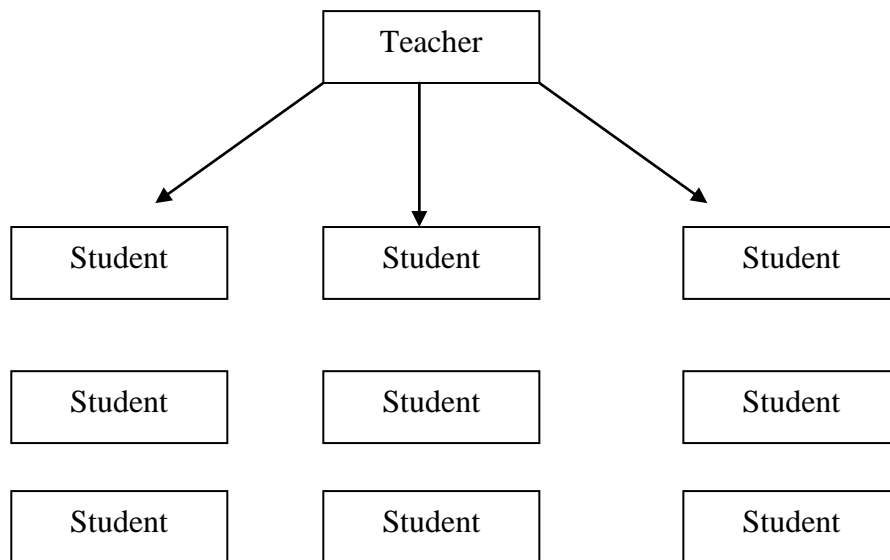


Figure 3 Teacher-centered teaching



There have been norms of cramming the stuff before appearing in the exams but at this university a crammer even can not think of rote learning as the type of paper a learner is to attempt never allows cramming. Another step to keep a check on favoritism is university qualifying examination; prepared and assessed by external examiners. The university's examination system is based on continuous assessment where neither the teacher nor the students can remain passive through out the academic year. It focuses on regular class tests, assignments, class participation as well as punctuality. Along with this students are provided ample chances to participate on daily basis.

The university started its journey in September 2002 and because of its innovative pedagogical trends, based on futuristic approach, enabled graduates to cope with the newly emerging classroom challenges. Within a short span of four years the university has started reaping the fruits of its strenuous efforts for introducing the new methodology. Credit goes to the system of the university that has broadened the vision of students who get

jobs in private and public sectors. It is necessary to mention that most of the students are on job, or have started their own schools and are quite satisfied. This is an encouraging sign.

With a sense of ‘job satisfaction’ it is worthy to be mentioned that the graduates of this university are motivated for learning so much so that most of them did not stop education rather have approached for some other programmes the university offers as M.Ed, M.A Education, M.Phil Education, PhD Education, etc. Ours have remained a society where educated people always preferred civil services to have nuisance value but it is great achievement in the present time that bachelor, or master degree holders have started thinking otherwise that are becoming good omen for the boost in economic activities.

These outcomes of adopting new methodology in education are paving way for national progress as well. No nation can progress unless education is given its due regard not only in terms of resources but also the academics. It is only possible when universities train their students with the aim to prepare them to face modern and future problems and challenges. No doubt all the universities work with a clear cut policy for the courses of studies they launch but the factor which determines the transfer of knowledge is the pedagogical expertise of the teachers. This means the door of learning should remain open at every stage, every age. This is an endless process so should not be fossilized. Being Muslims, ours is double responsibility because we are ordained to seek knowledge from cradle to grave.

To avoid this fossilization the time has come to think rationally and to go for continuous updating of our educational system. It is surprising that why some institutes have not yet revised pedagogy after decades when we are facing day to day changes in the international educational scenario. As the University of Education, from the out set, prepared curriculum that could meet the present and future needs of the students, the foot tracks of the University of Education can be followed that has twice brought amendments in the professional courses after need analysis and feedback of the passed graduates. Days are gone when the students were mostly busy in institutional politics and found less time for their studies. Credit must be given to media which has, in fact, changed the entire horizon of the students, and provided them with critical thought. The critical thought also put a colossal task before the universities of how to satisfy this new thinking and critical generations. The answer could be collaborative and interactive learning.

As human beings are inquisitive by nature, it is unnatural to suppress their sense of enquiry by denying them the right to question and query. Unfortunately, traditional method of teaching encouraged this. Sugar coated pills can not prove fruitful remedy for all the ills but right medicine for a particular problem is required. As shown in figure 3, where teacher is taking most of the time of the class, that teacher centered teaching generates lot of questions which the students / learners want to be answered but too much speaking of the teacher never allows their questions to be answered. The same questions permanently accompany our youth who waste some more years to know the answers to those unsolved or unanswered questions.

Figures 2 & 3 easily take the boat out of storm and save it becoming a shambling wreck. But at the same time these types of teaching techniques are challenging and demanding. The teacher has to make consistent efforts through out the academic year and be vigilant because it is on going thinking and creative process which guarantees impendence, and self reliance on the part of learners. It starts and ends with the out come of new ideas, practices, and approaches.

The recipe is not as difficult as it is felt by some of the educationists who may feel it a bad exercise. As a humble teacher the researcher would go for new teaching techniques which could not only get the job done but at the same time appeases the learners who spend time, money and resources to get something new in education. On the other hand there is sense of enjoyment when interactive teaching techniques are applied to post graduate classes where learners feel themselves mature, responsible and demanding. Their demanding nature can easily be steered towards creativity and it is only made possible when they are asked, involved, and allowed to express what they really want.

It has been the experience of the researcher that the teachers who go for interactive teaching technique at post graduate level are liked by the students’ community as they try to give more weight to the ideas of the learners And undoubtedly, teacher’s own knowledge, ideas, and experience, when discussed and evaluated by the students, work more on the creative process and critical thinking of the learners. These are the means through which we can send our youth to the market to become an active part of the system which is getting intricate, challenging and expects a lot from youth as is shown in the response (the bar graph) to the survey conducted in this regard.

IV. RESEARCH QUESTIONS

It was a general survey on the close ended questionnaire consisting of five statements which are given below:

1. Have you got job as teacher soon after your graduation?
2. Do you feel economically secure after getting education from this university?
3. Do interactive teaching techniques help you complete your assignments as teacher?

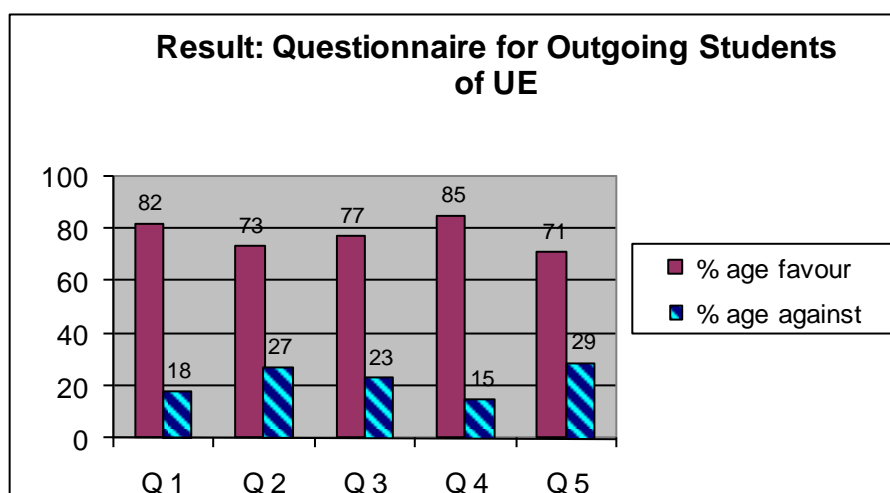
4. Do you feel you are pedagogically better teacher as compared to those who teach through traditional method?
5. Are you satisfied as a teacher in the light of results your students show?

V. FINDINGS AND CONCLUSION

Detail of Respondents

Programme and session	No of students	Male	Female
B.Ed 2005-2006	50	15	35
B.Ed 2006-2007	50	20	30
B.Ed 2007-2008	50	18	32
B.Ed 2008-2009	50	25	25
B.Ed 2009-2010	50	22	28
B.Ed 2010-2011	50	24	26

Responses



It is significant to note that the students have responded positively. This is a sign that a positive change took place in them because it was only at post graduate level at University of Education they experienced interactive instruction whereas previously they had gone through traditional method. This change reflects their critical analysis skills have been tapped and they voted in favour of the new mode because the University not employs cooperative teaching and learning pedagogy but all such efforts are assisted by ICT in almost every academic programme.

Moreover, most of them are ready to continue their education as the university offers attached programmes. For example, university offers M.Ed, (M.A Education), M.Phil Education, PhD Education, etc., after B.Ed to facilitate students to enhance their education.

It is a good sign that this University of Education is providing professionally sound teachers, who are aware of the modern challenges of the classroom, not only to public sector but private sector as well. They are equipped with interactive and collaborative teaching / learning techniques which will increase their demand as a teacher. It is because the graduates of this university have to undergo a three to six months compulsory internship, which is based on the entire pedagogical skills imparted during the programme, to be fit to receive degree. Further, they have to complete allocated credit hours reserved for teaching practice without which the course completion certificate is not awarded. It was indeed requirement of the society that curriculum may be based on the needs of the society and for the delivery of the same curriculum sound pedagogical expertise is necessary to be applied to achieve results.

Furthermore, the widely used interactive mode of instruction will not only improve the quality of education but also the quality of professionals and experts in their respective fields at all levels. Pakistani

education system needs this before it gets too late. I reinforce my belief that in this methodology lies the key to the progress of not only a group of individuals rather the entire nation. This is the remedy for the dilemma we are facing now.

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