Students' Engagement Through Questioning Strategies in Undergraduate Classrooms

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Abstract

Questions are one of the important sources of learning. A good questioning strategy can encourage students' interest and arise curiosity. Thus, teachers' questions are useful tool in reinforcing learning and involving studentsduring classroom instruction. Unfortunately, the questioning strategies by the language teachers at higher education level in Pakistan are not planned and executed to involve students. The present research is an attempt to explore students' perception about teachers' questioning strategies in English classrooms at university level. The sample was taken from three private universities. Data were collected from 250 students through a questionnairedesigned on a five-points Likert scale. The findings revealed that most of the teachers' questions are convergent or procedural while divergent questions are very less. The classroom environment is thus less interactive and teacher-centered. The findings of the study are helpful to teachers, educational planners and experts in understanding students' involvement through teachers' questions.

Keywords: Questioning strategies**;** communication skills;procedural; convergent; divergent; productivethinking.

Introduction

The classrooms in Pakistan are still mired as teacher-centered with little focus on students' interaction and participation. Contrary to this, there also exists student centered classrooms, where teachers create interactive environment with students. In the process of learning, interaction of teacher-student produces useful outcome. It enables the learners to get their concepts clear and understandable. This will enable the students to learn in a well-

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organized way with respect to time, offering knowledge in accordance with the topic (Wu & Huang, 2007). However, in the traditional way of teaching, the teacher focuses on knowledge transmission with less input from the students (Belo, 2014). In contrast, the teachers who focus on the students generally prefer the active participation of students in knowledge sharing (Seung, Park, & Narayan, 2011). The teachers shall focus on the students' learning by offering them better opportunities and classroom experiences (Polly et al., 2014). The interaction and involvement of students in a classroom are known to be an integral component of teaching and learning activities in the student-centered arrangement. In this regard, questioning is one of the important processes to help in effective interaction between teacher and students.

The questions of teachers bring significant results in the process of learning. Chin (2007) states that teachers' questions are guiding principles that help in meeting the milestones of the curriculum. These questions are an important tool for increasing the solidification of students' thoughts on specific topic. The teachers' questioning technique enable them the students to learn the ideas easily and comprehensively. Besides, this technique also enhances the reasoning ability of the students for better understanding. The efficient teaching practices means purposeful questioning strategies for assessing the learners, persuading for critical thinking, efficient reasoning and making sense of innovative ideas (NCTM, 2014). It is the prime responsibility of a teacher to motivate the students for explaining thing concepts so that consequential contribution in classrooms could be achieved. It is necessary and important to mention that the teachers should also be capable enough to ask effective and practical questions from the students with different mental level in the classroom so that students could be supported for clarifying their concepts on specified topics (Oliveira, 2010). The structure for classroom questioning offers the insight into the technique adopted by the teacher and provides the general information with respect to student's perception.

In the learning process, sometimes the teachers just teach without addressing the students. It is due to the fact that, they are either in hurry or don't have prepared teaching material effectively. This approach makes negative implications and can badly influence the classroom environment for learning. The teachers must turn out to be effectively acquainted with the entire scope of question shapes in English. In addition to this, the teachers should not overlook interactive environment. They have to focus on the questioning strategies in their classrooms. In the aforesaid explanation, not only the

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teachers must know about addressing methodologies and strategies, but they can also utilize these strategies for various purposes to influence the cooperation between the teacher and students.

Late research on addressing in English language teaching by Ozdemir and Dikici (2011) states that "the proclivity for teachers to make numerous questioning has been seen in several examinations". The students are likely to show high interests and consideration towards the showing action which uses addressing system. Following this, the procedures, utilized by the teachers at that point, can motivate the students to actively engage themselves with dialect learning process. This is the reason for accomplishing the objective of instruction; such procedures conducted by the teachers must be seen and connected on the grounds. It requires learning of questioning strategies and the skill of addressing expertise. By considering the aforementioned points, the teachers should implement the pattern of questioning and scrutinizing procedures during their teaching.

At the undergraduate classrooms, quality questioning does not process in an effective way. The teachers at university level, mostly focus on the quality of lectures and content completion (Wajnry, 1992). It has been observed that proper quality time is not given to the students for discussion and participation in classroom activities. Moreover, the teachers lack planned questioning strategies to involve their students during the lectures. This creates understanding problem besides the resistance to discover students' logical thinking and productive learning. Hence, this current research will be conducted to explore students' engagement through teachers' questioning strategies in undergraduate classrooms. It is presumed that this research will be supportive to different stakeholders like educational managers, administrators, teachers, parents and for incoming researchers for understanding the role of questioning in engaging students for learning in undergraduate classrooms. The research work focuses on the following objectives; to investigate the types of questions asked by English language teachers in undergraduate communication skills classrooms; to explore students' perception about teachers' questioning strategies in communication skills classrooms and ; to suggest measures for improving the questioning strategies of English language teachers at the undergraduate level. The research work aimed at the following research questions; What are the different types of questions asked by English language teachers in the undergraduate communication skills classroom at undergraduate level? How students perceive the questioning strategies adopted

by English language teachers in communication skills classroom at undergraduate level? What are possible measures to improve questioning strategies of English language teachers in communication skills classroom at undergraduate level.

Conceptual Framework

The study was guided by theRichards and Lockhart (1996) model which categorized the questions into three types, procedural, convergent and divergent. Procedural typerefersto questions that are about the usual classroom processes such as Have you brought text book? Is the lesson clear? The second type is the convergent questions that seeks short answers and are focused on recalling of some factual information such as who wrote that poem? The third type is the divergent questions that stimulate thinking process and usually involves long answers, for example how the author viewed the concept of criticism in the text? The researchers analyzed the type of teacher's questions based on this model to investigate the frequency of these questions during classroom instruction.

Research Methodology

This study used descriptive research design and used quantitativemode of research for collection and interpretation of data. In the present study, the researchers collected data from 278 undergraduate students purposively selected from three private universities in Islamabad, the capital city of Pakistan. All these students were studying the course of communication skills in their undergraduate program. The breakdown of the sample was as per the following strata.

- 1st stratum includes 75 students from university A.
- 2nd stratum includes 92 students from university B.
- 3rd stratum includes 111 students from university C.

For current research, multi stage sampling technique was used. In the first stage, the researcher randomly selected three universities. From each university, BS communication skills students were selected. Communication skills is the subject being offered to different departments as compulsory course.

Research Instrument: The data for the research study were collected through a students' questionnaire. The purpose of students' questionnaire was to check students'perception about their English teachers' questioning strategies.The questionnaire was validated by consulting relevant teachers at university level

before pilot testing. The instruments were refined and improved through these two processes.

Data Analysis

The students' questionnaire consisted of demographic data and items constructed on five-point Likert scale ranging from strongly agree to strongly disagree which were coded from 5 to 0. The data was analyzed using SPSS 25 (Reg) using cross tab Chi Square Test for independence and percentages.

Results and Discussion

The data from the students' questionnaire is illustrated in tables with their percentages and chi square value. Table 1 shows the gender-wise distribution of students from different departments selected from the three universities.

Table1. Gender wise distribution of students across different departments

			Gender		
			Male	**Female**	**Total**
Departments	**Computer Science**	Count	39	11	50
		% within Departments	78.0%	22.0%	100.0%
	Management Science	Count	32	18	50
		% within Departments	64.0%	36.0%	100.0%
	Bio Informatics	Count	27	23	50
		% within Departments	54.0%	46.0%	100.0%
	DPT	Count	32	67	99
		% within Departments	32.3%	67.7%	100.0%
	Civil Engineering	Count	48	5	53
		% within Departments	90.6%	9.4%	100.0%
Total		Count	178	124	302
		% of Total	58.9%	41.1%	100.0%

Table 1 shows that the departments of Computer Science, Management Science and Civil Engineering are dominated by the male students. In the department of Computer Science, there was a large majority of males (78%). In the department of Management Sciences and civil engineering, the same trend was visible showing that these fields attract the male students more as compared to female students. In the department of Bio Informatics there was a small difference between the number of male and female students. The males were about 8 % more than the females. It was only in the department of DPT that consisted more females as compared to males indicating it as the most

preferred choice of female students.

Table 2. Students' engagement through procedural questions

			SDA	DA	N	A	SA	Total
Departments	Computer Science	Count	6	13	11	9	11	50
		% within Departments	12.0%	26.0%	22.0%	18.0%	22.0%	100.0%
	Management Science	Count	3	12	13	14	8	50
		% within Departments	6.0%	24.0%	26.0%	28.0%	16.0%	100.0%
	Bio Informatics	Count	1	2	11	21	15	50
		% within Departments	2.0%	4.0%	22.0%	42.0%	30.0%	100.0%
	DPT	Count	1	2	16	41	39	99
		% within Departments	1.0%	2.0%	16.2%	41.4%	39.4%	100.0%
	Civil Engineering	Count	0	0	11	23	19	53
		% within Departments	0.0%	0.0%	20.8%	43.4%	35.8%	100.0%
Total		Count	11	29	62	108	92	302
		% of Total	3.6%	9.6%	20.5%	35.8%	30.5%	100.0%

$\chi^2 = 68.9$, P <.01

There is significant association ($\chi^2 = 68.9$, P <.01) between different departments and their responses on teachers asking procedural questions. Table 2 shows that 40% students in the Computer Science department agreed to the statement, 44% students in Management Sciences, 72% in Bio-informatics, and 80% students in DPT agreed to the statement. Surprisingly from the department of Civil Engineering no student disagreed, and 78% agreed to the statement. Thus, most of the questions asked by the teacher to engage students in communication skills classrooms are procedural question which are not much helpful in the learning process.

Table 3. Students' engagement through convergent questions

			SDA	DA	N	A	SA	Total
Departments	Computer Science	Count	2	4	12	20	12	
		% within Departments	4.0%	8.0%	24.0%	40.0%	24.0%	100.0
	Management	Count	4	5	17	18	6	

Science	% within Departments	8.0%	10.0%	34.0%	36.0%	12.0%	100.0
Bio	Count	1	4	13	20	12	
Informatics	% within Departments	2.0%	8.0%	26.0%	40.0%	24.0%	100.0
DPT	Count	4	10	20	37	28	
	% within Departments	4.0%	10.1%	20.2%	37.4%	28.3%	100.0
Civil	Count	0	5	9	27	12	
Engineering	% within Departments	0.0%	9.4%	17.0%	50.9%	22.6%	100.0
	% of Total	3.6%	9.3%	23.5%	40.4%	23.2%	100.0

$\chi^2 = 14.9, p > .05$

The data in table 3 shows the students' engagement through convergent questions by the teacher. The data revealed that there is no significant association between students' responses across different departments ($\chi^2=14.9$, $p > .05$). This means that students' engagement cannot be predicted across the different departments due to variation in responses across departments. The convergent/closed-ended questions asked by the teachers do not help in engaging students during classroom teaching. May be the convergent questions rely on memory and rote learning which does not help in involving students during the learning process. This is also supported by Ur (2012) that closed-ended questions do not inspire the students. They are only helpful for brisk checks or understanding. Betakova (2010) also found that close questioning are more prohibitive and often restrains discussion. Unfortunately, most of teachers' questions are convergent/close-ended which dominates the classroom assessment (Sedova et al., 2012; Andersson, 2012).

Table 4. Students' engagement through divergent questions

			SDA	DA	N	A	SA	Total
	Computer Science	Count	7	25	11	3	4	50
		% within Departments	14.0%	50.0%	22.0%	6.0%	8.0%	100.0%
	Management Science	Count	9	21	8	9	3	50
		% within Departments	18.0%	42.0%	16.0%	18.0%	6.0%	100.0%
Departments	Bio Informatics	Count	12	21	10	5	2	50
		% within Departments	24.0%	42.0%	20.0%	10.0%	4.0%	100.0%
	DPT	Count	19	30	15	22	13	99
		% within Departments	19.2%	30.3%	15.2%	22.2%	13.1%	100.0%
	Civil Engineering	Count	19	17	10	4	3	53
		% within Departments	35.8%	32.1%	18.9%	7.5%	5.7%	100.0%

% of Total		21.9%	37.7%	17.9%	14.2%	8.3%	100.0%

$\chi^2 = 26.7$, P <.01

Table 4 shows students' responses on teachers' asking productive questions to engage students during the class. There was a significant association between students' responses across the departments (χ^2=26.7, p < .01). This means that the teachers asking productive questions can be predicted across different departments. In the department of Computer Science, 64% students disagreed, 60% in Management Sciences, 66% in Bio Informatics, 59.5% in DPT and 67.9% in Civil Engineering. The data revealed that majority of the students disagree to the statement. Thus, we can conclude that the teachers do not engage students through productive questions during their class which is direly needed to promote productive and critical thinking. The key element of productive questions is that they prompt diverse level of responses in students and evoke more fascinating reactions without any dread of disappointment (Betakova, 2010). However, such 'key method' as Scrivener (2011) has put it are missing in the communication skills classrooms.

Table 5. Engagement through interesting questions

			SDA	DA	N	A	SA	Total
Departments	Computer Science	Count	18	21	7	2	2	50
		% within Departments	36.0%	42.0%	14.0%	4.0%	4.0%	100.0%
	Management Science	Count	11	22	9	1	7	50
		% within Departments	22.0%	44.0%	18.0%	2.0%	14.0%	100.0%
	Bio Informatics	Count	16	24	4	3	3	50
		% within Departments	32.0%	48.0%	8.0%	6.0%	6.0%	100.0%
	DPT	Count	19	31	8	20	21	99
		% within Departments	19.2%	31.3%	8.1%	20.2%	21.2%	100.0%
	Civil Engineering	Count	16	26	6	3	2	53
		% within Departments	30.2%	49.1%	11.3%	5.7%	3.8%	100.0%
		% of Total	26.5%	41.1%	11.3%	9.6%	11.6%	100.0%

$\chi^2 = 45.0$, P < .01

The students' responses on interesting questions showed significant association department wise (χ^2=45.0, P < .01). Majority of students in all the departments disagreed that their teachers engage them through interesting questions. Rather, the teachers' questions are not interesting to the students to make them interactive and motivating during the class. Qashoa (2013) indicated that the lack of such questions is responsible for demotivation of

students.

Table 6. Interactive learning environment during questioning

			SDA	DA	N	A	SA	Total
Departments	Computer Science	Count	10	17	10	8	5	50
		% within Departments	20.0%	34.0%	20.0%	16.0%	10.0%	100.0%
	Management Science	Count	7	12	22	4	5	50
		% within Departments	14.0%	24.0%	44.0%	8.0%	10.0%	100.0%
	Bio Informatics	Count	10	31	5	4	0	50
		% within Departments	20.0%	62.0%	10.0%	8.0%	0.0%	100.0%
	DPT	Count	17	29	11	20	22	99
		% within Departments	17.2%	29.3%	11.1%	20.2%	22.2%	100.0%
	Civil Engineering	Count	9	35	6	3	0	53
		% within Departments	17.0%	66.0%	11.3%	5.7%	0.0%	100.0%
Total		Count	53	124	54	39	32	302
		% of Total	17.5%	41.1%	17.9%	12.9%	10.6%	100.0%

$\chi^2 = 78.4$, p< .01

The perception of students regarding teachers' questions in creating an interactive environment during the classroom teaching is shown in table 6. We found the Chi square value as $\chi^2 = 78.4$, p < .01, which indicated a significant association between students' responses across different departments. This means that the level of interactive environment created by teachers' questioning strategy can be predicted from students' responses in different departments. In computer science department almost 54% of the students disagreed with the statement that the learning environment is interactive during the questions. In the department of Management Sciences, 38% disagreed to the statement. The largest proportion of students were in Bio-Informatics department where almost 90% students disagreed. Thus, the teachers' questions failed to create interactive and supportive learning environment in the sample universities. This is in contradiction to Qashoa (2013)and Hamiloglu, (2012)who pointed that teacher's questionspromote interactive environment.

Table7. Teacher's appreciative behavior towards students' questions

			SDA	DA	N	A	SA	Total
Departments	Computer Science	Count	14	25	6	3	2	50
		% within Departments	28.0%	50.0%	12.0%	6.0%	4.0%	100.0%
	Management Science	Count	11	24	6	7	2	50
		% within Departments	22.0%	48.0%	12.0%	14.0%	4.0%	100.0%
	Bio Informatics	Count	12	24	6	7	1	50
		% within Departments	24.0%	48.0%	12.0%	14.0%	2.0%	100.0%
	DPT	Count	20	27	11	14	27	99
		% within Departments	20.2%	27.3%	11.1%	14.1%	27.3%	100.0%
	Civil Engineering	Count	12	28	9	2	2	53
		% within Departments	22.6%	52.8%	17.0%	3.8%	3.8%	100.0%
Total		Count	69	128	38	33	34	302
		% of Total	22.8%	42.4%	12.6%	10.9%	11.3%	100.0%

χ^2 =49.2, p< .01

The data in table 7 indicated a significant relation between students' responses across all the department on whether the teachers appreciates students' questions during the class (χ^2 =49.2, p< .01). This means that the teachers' appreciation towards students' questioning can be predicted across the different departments. The study shows that a clear majority of the students in all department disagree to the statement that their teachers appreciate questioning in the class. The study further shows that only DPT students agree that communication skills teachers appreciate questioning in classroom. The finding of Feng (2013) reported that learner's thinking capability is mainly based on teacher's questioning technique. As such, the level of asked questions determines the learning quality for learners thinking in critical way which is not possible if the teacher does not appreciate the students' questions.

Table 8. Teacher's impartiality during questions

		SDA	DA	N	A	SA	Total
Computer Science	Count	5	21	14	6	4	50

	% within Departments	10.0%	42.0%	28.0%	12.0%	8.0%	100.0%
Management Science	Count	6	17	19	5	3	50
	% within Departments	12.0%	34.0%	38.0%	10.0%	6.0%	100.0%
Bio Informatics	Count	6	23	15	5	1	50
	% within Departments	12.0%	46.0%	30.0%	10.0%	2.0%	100.0%
DPT	Count	9	33	11	20	26	99
	% within Departments	9.1%	33.3%	11.1%	20.2%	26.3%	100.0%
Civil Engineering	Count	4	36	13	0	0	53
	% within Departments	7.5%	67.9%	24.5%	0.0%	0.0%	100.0%
	% of Total	9.9%	43.0%	23.8%	11.9%	11.3%	100.0%

$\chi^2 = 67.4$, p< .01

The data in table 8shows that there existed significant association between students' responses across the department and teachers' impartiality ($\chi^2=67.4$, p< .01).The students in all the departments disagreed with the statement which indicates that the teachers are not neutral during asking questions and target specific students during the questioning. However, it is difficult to predict whether the teacher targets the weak students or the students with behavioral problems. The need is to focus on all the students to ensure their active participation in knowledge sharing (Park, & Narayan, 2011) and better opportunities to gain knowledge through experiential learning (Polly et al., 2014).

Conclusion

The research tried to seek the students' engagement in learning by the teachers teaching communication skills course. The data revealed that the classroom environment is not interactive during teaching. The teachers' questions are not interesting that may motivate the students. The teachersdo not appreciate students' questions in the class. Majority of teachers' questions are procedural or convergent which are not helpful to learning. While, the frequency of divergent questions is very less. The research recommends the use of divergent questions during the class which are helpful in stimulating critical thinking and diverse responses. The questions should be interesting and

should be addressed to the whole class and not particular students.The future studies may include the type of questions asked by students during the class and teachers' responses to the different type of questions.

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