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# The Teaching Practices of Teacher Educators in ADE/B.Ed. (Hons) Elementary Programs in Sindh: An Evaluative Study

## *Executive Summary*

*Recently, teacher education in Pakistan has undergone significant changes due to various reform efforts in response to the National Educational Policy of 2009 funded by USAID Teacher Education Project. As a result of these reforms, the traditional pre-service programs such as Primary Teaching Certificate (PTC) , Certificate of Teaching (CT) and Diploma courses in education have been phased out; and new degree programs of a four-year Bachelor of Education (B.Ed.) Honors and a transitional two-year Associate Degree in Education (ADE) have been implemented across the country. Further, new curricula, course guides, instructional material along with assessment procedures have been developed for newly designed degree programs in pre-service teacher education.*

*The changing context of the pre-service teacher education programs has created a challenging situation in which teacher educators are expected to improve their pedagogical skills and apply student-centered, interactive teaching and learning approaches. While the alignment of teacher educators' practices with the suggested approaches is of utmost importance, it has not been a focus of systematic study. No systematic study exists about*

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*the choices teacher educators make and why they make them. The purpose of this evaluative study was to fill this gap and also to formulate recommendations for supporting the teacher educators in overcoming such challenges for effective implementation.*

*This study utilized quantitative and qualitative research methodology and investigated the teaching practices of teacher educators at the institutions offering B.Ed. (Hons) and ADE programs in the province of Sindh. The purpose of this study was to examine the current teaching practices for deviation (if any) from practices envisaged in the new curriculum.*

*The study finds that traditional lectures, demonstration and discussion were most commonly used instructional approaches in the classrooms. Although various approaches such as jigsaw, inquiry method, discovery method, and project method were infrequently used instructional approaches, the study found evidence of the use of some interactive teaching strategies in classrooms such as brainstorming, group work and student presentation in their lessons. This could be associated with the number of the refresher courses and subject support forums organized under Teacher Education Project for the teacher educators teaching in ADE/B.Ed (Hons.) programs.*

*The findings from classroom observations and interview suggest that the teacher educators' pedagogical preferences can be divided into three categories namely traditional, interactive and mixed approach. Simultaneously a significant number of teacher educators were in favor of using mixed instructional approach. The study shows that teacher educators preferred methods that they find convenient to be implemented in the classrooms. Further, the pedagogical preference of the teacher educators is also correlated to the perceived effectiveness of a particular instructional approach for students' learning. This indicates that teacher educators choose instructional strategies on account of their effectiveness for the students of the 21st Century and that will better prepare them for final examinations. Most of all, various institutional factors such as lack of required instructional facilities, lack of protected time for planning, inadequate admission and assessment policy discourage teacher educators from preferring and implementing the teaching*

*approaches that are suggested in the new curriculum of ADE and B.Ed. (Hons.) program.*

*Thus, the study concludes that although teacher educators espoused beliefs about interactive approach to teaching; those beliefs were less reflected in their classroom practice. Since beliefs are implemented in the context, the study proposes that required changes in the teaching practices will come about when teacher educators consider their personal capacity and the overall environment of their institutions as favorable for the implementation of the new approaches of instruction demanded by the new curriculum of B.Ed. (Honors) and ADE program.*

*The study also raised a concern that if various reform activities that have been carried out under Teacher Education Project are discontinued with the end of the project, teacher educators might return to traditional teaching methods instead of moving forward with the interactive teaching and learning pedagogies. In addition, the study has highlighted various contextual constraints that hamper teacher educators from implementing innovative and interactive teaching strategies. It is in this backdrop that the study proposes the following recommendations.*

*It is regarded important to ensure sustainability of its interventions.*

### Central resource and training center

*The study recommends that a central resource and training center (CRTC) should be established at the provincial level. The CRTC would be responsible to generate and dispense a pool of instructional materials that the institutes of teacher education require in order to implement various curricular innovations that are initiated under Teacher Education Project.*

### Taskforce

*The study further suggests that a multi-sector taskforce should be established to strengthen the links between the various key stakeholders in the field of teacher education. The taskforce should bear the responsibility for developing collaborative partnerships among faculties and colleges of education and facilitate dialogue about issues related to the field of teacher education.*

### Inbuilt mechanism for continuing professional development (CPD)

*There must be inbuilt mechanism for continuing professional development (CPD) process in order to support teacher educators in implementing the reform initiatives in the field of teacher education. In this regard, an advantage from the experienced and expert practitioners may be taken by inviting them in sessions of conferences, subject support forums (SSF) and discussion boards may be set up to encourage participation from other fields.*

### The quality control mechanism

*The ADE and B.Ed. (Honors) programs are offered by universities and colleges of education in the province of Sindh. At the university level, Quality Enhancement Cell (QEC) has been established with the help of the Quality Assurance Agency of the Higher Education Commission. On the contrary, there is complete absence of such internal quality control mechanism that could ensure the quality of new degree programs in the elementary colleges of education. Therefore, it is recommended that the quality control mechanism (QCM) should be established in all Elementary colleges of Education in Sindh to ensure and sustain the academic quality and standards of teacher education programs in a systematic and uniform way with a particular reference to ADE and B.Ed. (H) program.*

*Findings from the current study show that aforementioned recommendations have the potential to facilitate and support the intended goals of the recent reforms initiated in the field of teacher education.*

## Introduction

### Context of the Study

Developing a quality education system in a country requires competent and dedicated teachers. To that end, teacher professional development and training program is paramount.

Teacher educators are key stakeholders and play a very important role in reforming and improving the quality of teacher education programs. Hence, their judgment and perceptions of reform agenda are very critical for implementation of different quality improvement measures (Dilshad & Iqbal 2010).

Professional development of teachers is considered as an investment enhancing teachers' content knowledge and pedagogical skills. To meet this purpose, teacher education institutions use a variety of ways in their teachers' development programs. Mostly these ways and strategies are used in short and long programs where teachers are provided opportunities to expand their knowledge and enhance their skills. Moreover, the purpose of such programs is to enhance the professional capacity of teachers and improve the learning outcomes of the students.

This study utilized quantitative and qualitative research methodology to examine the current teaching practices and investigate deviation from practices required by the new curriculum. This study was carried out in the context of a new wave of reform in the teacher education curriculum with an emphasis on student centered pedagogy. This study highlights consistencies and inconsistencies that occur in the suggested and enacted practices of teacher educators in Sindh, Pakistan. Further, it also bridges a gap in the Pakistani education literature, and based on findings, makes

important recommendations for pre-service teacher education in Sindh, Pakistan.

## *The Teacher Education Reforms in Pakistan*

According to the current National Education Policy 2009, the old teachers' certifications (PTC/CT programs) do not comply with any of the accepted norms, benchmarks, criteria or professional standards for teachers in the 21st century.  Among its several other propositions, the Policy demands to phase out the current teacher certification (PTC,CT) programs; and replace them with a four year undergraduate program of teacher education in GCEEs, RITEs and university departments of teacher education was proposed (GoP 2009).

The Teacher Education Reforms are currently underway in Pakistan. The new programs, such as Associate Degree in Education (ADE) and B.Ed. (Honors), are very important in this context. These programs are implemented by universities and elementary colleges of education throughout the country including Sindh with the support of the Higher Education Commission (HEC) and USAID's Pre-STEP project. The universities are in the process of creating the systems, policies and standards to ensure the effective execution of these programs. The goal is that these programs will produce teachers with the knowledge, skills and disposition required to raise the quality of education in the schools across the province and also at the national level.

The teacher educators within these programs are expected to enact dynamic learning and learner-centered approaches within their classrooms. In this regard they have been supported by the professional development programs tailored to help them acquired the necessary skills. These professional development events — consisting of modules and trainings, have been designed to provide

hands on knowledge and skills to help teacher educators plan and implement various and effective courses within the programs.

While the alignment of teacher educators' practices with the expected teaching and learning approaches is of utmost importance, it has not been the focus of a systematic study. No independent study has examined the beliefs and attitudes of teacher educators in the Sindh region. The purpose of this evaluative study is to fill this gap in Pakistani education literature and also to make recommendations for policy and program development and implementation. Hence, this study has investigated the teaching practices of teacher educators at the institutions offering B.Ed. (Hons) and ADE programs in the province of Sindh.

## *Research Questions*

In order to explore the current teaching practices of the teacher educators in Sindh province, this study particularly addresses the following key questions.

i.      What are the similarities or differences between the Teacher Educators' espoused and enacted practices? (Operational Variations)

      a.      What are Teacher Educators' beliefs about teaching their prospective teachers in the settings of B.Ed.(Hons) and ADE program within the university based faculties of education and the affiliated Govt. elementary training colleges? (Espoused)

b.    How do teacher Educators Implement their beliefs/ preferences in their teacher education class room? (Enacted)

ii.   What are teachers' Rationale/ Reasons about their pedagogical preferences? (Professional Commitment)

## *Methodology and Framework of Analysis*

This study utilized quantitative and qualitative research methodologies. The mixed-method design was used because it ensures the collection of both quantitative and qualitative data required to answer the research question reliably (Creswell, 2009). Answering research question # 1 required the use of quantitative methodology to ascertain the espoused beliefs of teacher educators regarding their teaching practice. It also required collection of data from a randomly selected sample of teacher educators regarding their classroom practice. Finally, an in-depth investigation into the teacher educators' rationale for their pedagogical preferences (research question # 2) required qualitative data collected through semi structured interviews and classroom observations.
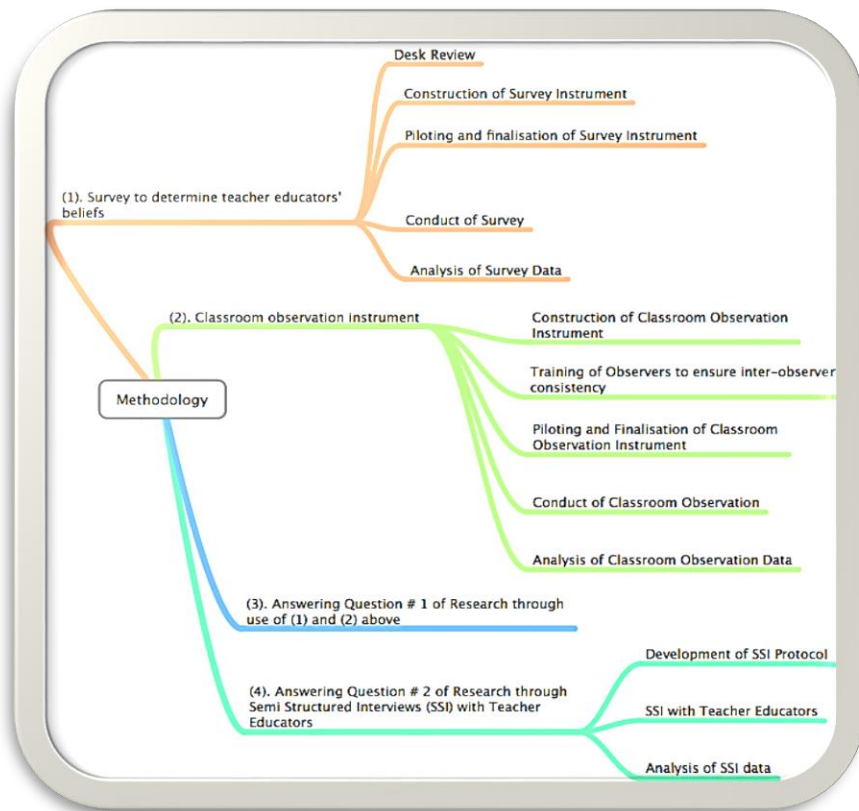
*Chart 1: Schematic Diagram of the Research Design*

## a.      *Nature of data and data sources*

In order to answer question # 1, both categorical (demographic, in this case) and ordinal data (ranking of beliefs in accordance with their alignment with the expected teaching practices) were collected. The data in response to question # 2 mainly contained transcripts of the semi structured interviews and detailed notes of classroom observations.

The first set of quantitative data was obtained from the first semester course teachers of the three universities and six elementary colleges of education offering B.Ed. Elementary/ADE program (N=68). For the purpose of classroom observation, a small sample of 9 institutions was selected. Two teachers from each of these 9 institutions participating in the observational study (N=18) were observed in their actual classrooms. The classrooms were selected based on the perceived order of importance of the particular course offered. Finally, the semi-structured interviews were held with the same teacher educators, whose classrooms were observed.

**Table 1          Sample distribution for survey questionnaire**

| Categories | | Total population | Selected Sample | % of Selected Sample |
|---|---|---|---|---|
| Institutions | Elementary Colleges including PITE Universities | 12 03 | 06 03 | 50 100 |
| | | | N= 09 | |
| Teachers | Elementary Colleges including PITE Universities | 72 26 | 48 20 | 57 77 |
| | | | N=68 | |

## b. *Data collection instruments*

Three data collection instruments that were used in this study are described as follows:

i.     Survey Questionnaire: A five-point Likert scale type survey instrument aimed at measuring teachers' beliefs about teaching practices: The scale was developed by the research team after a thorough review of previous studies. Further, the

scale was constructed in accordance with the expected teaching and learning practices provided to the teacher educators through several professional development programs as well as in the form of course guides. Thus, the questionnaire of this study investigated 31 beliefs and practices related to interactive teaching and learning strategies which were further categorized into four areas: Learner related beliefs and practices, Method related beliefs and practices, Content related beliefs and practices; and Assessment related beliefs and practices.

For the purpose of assessing the content validity of the survey questionnaire, the domain of curriculum contents was essentially for need. For empirical evidence was tried out with the pilot group. Along with piloting, the draft of survey questionnaire was reviewed by two experts. These exercises helped in improving the language and format of the survey questionnaire. The first draft had two sections. Each section contained 29 items. After piloting and expert review, however, the survey questionnaire was finalized with 31 items in each of the two sections that were further categorized in four parts.

Reliability of the survey questionnaire and its four areas were determined through the use of Cronbach alpha reliability analysis technique. For the learner related beliefs and practices, Cronbach's alpha coefficient was 0.74 where as for the method related beliefs and practices the reliability coefficient was 0.59. The alpha coefficient was 0.65 for content related beliefs and practice and 0.75 for assessment related beliefs and practices.

ii.     Classroom observation protocol:  Along with the survey questionnaire, a protocol for classroom observation was also developed by the research team; and it aimed at assessing the uniformity between the expected teaching learning approaches (embedded in instrument # 1 above) and the actual classroom practices.  Four observers were recruited and trained in the use of the observation checklist. A pilot phase was conducted to check the inter-observers reliability before the actual conduct of observation.

iii.    Semi-structured interview protocol: The interview protocol was designed to provide in-depth information about the rationale behind the pedagogical preferences of the teacher educators.

**Table 2      Research tool wise distribution of selected sample**

|     | **Research Tools** | **Teachers Elem. Colleges** | **Teachers Universities** | **Total (N)** |
| --- | --- | --- | --- | --- |
| 1.  | Survey Questionnaire | 48 | 20 | 68 |
| 2.  | Observation Protocol | 12 | 06 | 18 |
| 3.  | Interview Protocol | 12 | 06 | 18 |

*c.      Data collection producers*

The process of data collection was conducted in three distinct, but interrelated, phases. Each phase corresponds to the informed development and administration of the data collection instruments mentioned above.  A pre-empirical phase—the first month of the study is also included. The pre-empirical phase includes the following activities designed to facilitate the subsequent data collection:

1.    Establishment of initial formal contact with the institutions participating in the study

2.    Acquisition of necessary and appropriate official approvals

3.    Collection of policy documents, course guidelines, information about the professional development and other materials needed for the development of the research instruments.

4.    Desk review of the selected documents

After the conclusion of the pre-empirical phase data was collected according to the study schedule.

### d.    Data Analysis

Quantitative data was entered in Microsoft Excel for analysis. The analysis mainly consisted of descriptive and inferential statistics like as mean, standard deviation and t-value for the five point Likert scale.

The qualitative data from the classroom observation was analyzed using the standards qualitative data analysis methods including the use of open coding and identifying emerging themes.

## Ethical considerations

The following measures were taken to fulfill the ethical obligations toward the participants in this study.

1.    The objectives of the study were communicated verbally and in writing to all the participants.

2.    The research team obtained the informal consent of the Heads of the Elementary Colleges included in the sample of this study. Formal consent was also obtained from all participants before the start of data collection.

3.    The recorded interviews and transcription data were kept strictly anonymous to protect the identity of participants.

4.    Any information collected from participants was kept strictly confidential.  Raw data were kept under lock and key in a safe in the office of the principal investigator.

## *Research Studies and Review Related Literature*

The professional practice of educators is guided by commonly held knowledge, beliefs, and attitudes about pedagogy.  Likewise, a body of knowledge of research and theories guides the practice of the university professionals who prepare such educators. One important task for any practitioner is to reflect upon the actions of practice (Schön, 1983).  A critical piece of such reflection involves examining the knowledge base and theories in use that inform, and ultimately shape the practitioners to which such knowledge and theories are disseminated.  "Are we satisfied with the way that we, as teacher educators, teach our students or prepare them for their teaching roles?" (Crunkilton, 1988).

Jameel B. A. (2004) argued that there is insufficient focus on research in teacher education in terms of preparation and delivery areas. This results in lack of information to track learning achievements, teacher preparation programs which can in turn inform policy on teacher education.

According to the EFA Global Monitoring Report (2005), Pakistan is among the group of countries which are far from achieving the

Education for All goals of universal primary education, gender parity, literacy and quality by 2015. The reasons are many and varied, but there is no doubt that a great deal can be attributed to the weaknesses and gaps in the country's teacher education system (UNESCO, 2004).

The low standards in a majority of existing teacher education programs are compounded by increasing instances of plagiarism and non-authentic research practices. The awarding of undeserved higher degrees both in the government sector and in some of the new private sector institutions add to the deteriorating situation.

As the teachers are expected to put the reforms into practice, it is clear that the successful implementation of these changes directly or indirectly challenges the efficiency and competence of the existing teachers under consideration (Abdulahi B.A 2007).

The prior studies on professional development of teachers have identified discrepancies between what teachers' report (espoused practices) and demonstrate (enacted practices) during classroom teaching. These discrepancies are particularly evident in studies examining classroom implementation of such practices as learner-centered instruction (Polly, D. & Hannafin, M.J., 2011). Teacher educators need to implement changed practices themselves but they too have little knowledge of what such practices may look like. (Jorgensen R., Grootenboer P., Niesche R. & Lerman S., 2010).

While studies of such discrepancies exist elsewhere, we did not come across a single systematic consideration of the traditional practices and the ways in which teacher educators simultaneously respond to both change and tradition in the case of Pakistan. As a result, the policy makers and program planners and donors are unable to identify their own strategies to support teacher educators

in making the transition.  This study seeks to fill this gap in both our knowledge as well as in policy planning and implementation.

## Analysis and Findings

The main purpose of this research project based on mix-method approach was learn about  the current teaching practices of the teacher educators for deviation (if any) from practices expected by the new curriculum.  The study also intended to identify factors that influence pedagogical preferences of the teacher educators. Specifically the study was designed to investigate the teaching practices of teacher educators at the institutions offering B.Ed. (Hons) and ADE programs in the province of Sindh.

Data collected in this study was comprised of survey questionnaire administered to 68 teacher educators who were randomly selected from three (03) universities and Six (06) elementary colleges including PITE. In addition to the questionnaire, interviews with selected sample of eighteen (18) teacher educators, and eighteen (18) classroom observations from the same institutions were also conducted. This section presents results obtained through the collection of both quantitative and qualitative data. Findings derived from descriptive statistical analysis are provided first, followed by findings from qualitative data analysis. The data that were collected and analyzed in this study addressed the research questions.

### Summary of Key Findings of Survey Questionnaire

This section of the study summarizes the key findings of the teaching practice survey data collected through a questionnaire that contained two sections. Data from the two sections and questions within each section were analyzed separately. The analysis of section I (demographic data) revealed that the large

numbers of teacher educators from the sample selected for this study were lecturers and most of them had master degree. Most (40%) of them were found to have experience between 11 to 20 years.  Almost the same proportion (40%) of the respondents had experience up to 5 years. Out of the total respondents, 75 percent claimed to have attended refresher courses. The analysis of section I (Espoused Teaching Practices) demonstrated that the entire sample of the teacher educators had high level of agreement with the statements given in that section. All of the survey respondents agreed that teachers should develop students' critical thinking and problem solving capabilities and teacher encourage students to raise questions.

The participants in this study also agreed that they should provide opportunities for their students to work collaboratively both in and outside the classroom. They also agreed with the statements asking that teacher should "accept responsibility for his/her own professional development", "build students' self-esteem and self-confidence" and "teach in a way that recognizes different learning styles".

With regards to Enacted Teaching Practices, the data showed statistically significant difference on a number of statements which were found to have a high level of agreement in the espoused section. There was a statistically highly significant difference between espoused and enacted practices related to the development of critical thinking and problem solving capabilities. Their beliefs and practice concerning constructive feedback and self- assessment strategies also had highly significant difference. Overall, findings revealed that there was marginal correlation between the espoused beliefs and enacted practices among the teacher educators.

*Demographic Profile of the Respondents*

**Figure 1          Demographic Information of selected sample**
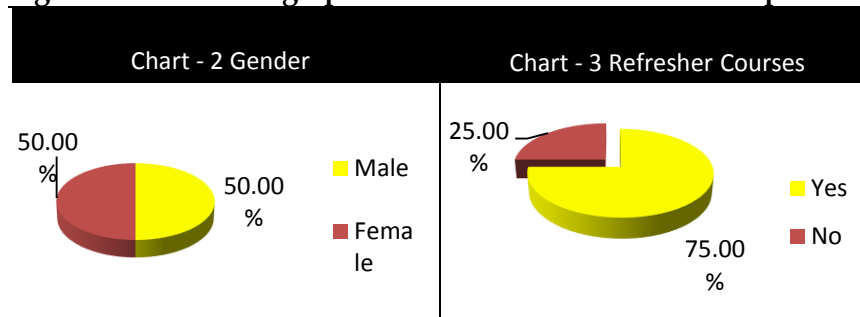


- On an overall basis, the sample of teacher educators constituted 50% males and 50% Females. The distribution of sample across college and University does not vary significantly since the ratio of both the gender is around 50% (54% females in the university and 49% in colleges). (see chart 2)

- Three out of every four (75%) respondents had attended refresher course, where as 25% had not attended any recently organized refresher course. (see chart 3)
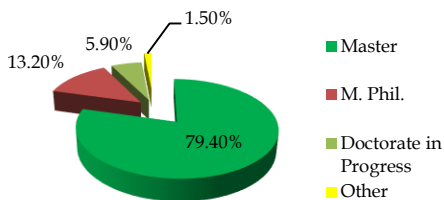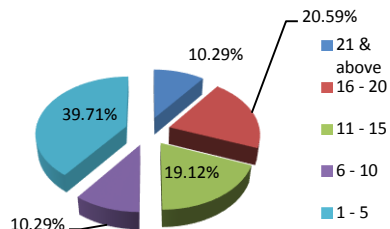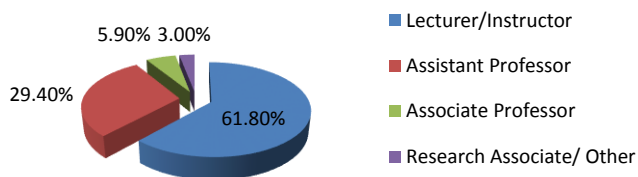
Chart - 4 Academic Qualification

Chart - 5 Teaching Experience

- The distribution of respondents by academic qualification showed that quite a large majority (79%) of the respondents had degrees at master's level while 13% possessed M.Phil. degree. None of the respondents had PhD, although some (5.90%) of the respondents are reportedly pursing doctoral degree programs. (see chart 4)

- The distribution of respondents by teaching experience showed that the highest percentage of teacher educator (39.71%) had 1-5 years of experience while 20.59% of the teacher educators had 16-20 years of experience. Further, 19.12% respondents had 11-15 years of experience. The equal proportion (10.29%) of the teacher educators was found in each of the two categories of 6-10 years and 21 & above. (see chart 5)

**Chart-6 Designation**



- Lecturer/Instructor
- Assistant Professor
- Associate Professor
- Research Associate/ Other

5.90%  3.00%

29.40%

61.80%

- Distribution of respondents by designation indicated that majority (62%) of the respondents were lecturers followed by Assistant Professors (29%), Associate Professor (6%) while the proportion of the instructors/Research Associates and others was 1.5% each. (see chart 6)

## *Analysis of Survey Results*

A total sample of 68 teacher educators completed a survey questionnaire that contained two sections. The first section of the survey measured espoused beliefs whereas the second section focused on the enacted practices of the teacher educators. This section of the study summarizes the results of the survey data presented in tabular form. Efforts have been made to discuss the survey results on an overall basis first, then the variations (if found significant) in terms of espoused beliefs and enacted practices are described.

## *Learner Related Beliefs and Practices*

The statements from one to twelve in the survey questionnaire were used to investigate teacher educators' espoused beliefs and enacted practices related to their learners. From the total 12 statements in the category of learner related beliefs and practices, six statements were found to have significant variations between espoused beliefs and enacted practices whereas the remaining six statements had no statistically significant variation. No significant variation between

espoused beliefs and enacted practices of teacher educators was found on a number of statements such as encouraging students to raise questions, involving students in group discussion, planning activities based on students' prior knowledge, encouraging students to think for alternative solution of a problem or ways to perform a task, helping students connect their prior knowledge with new knowledge, providing opportunities for student in their class to work collaboratively. Although the variation between espoused beliefs and enacted practices was not statistically significant, the higher mean score of the espoused beliefs and comparatively lower mean score of the enacted practices suggest that espoused beliefs are stronger and vigorous than the enacted practices. The statements that showed significant variations are presented in table 3 followed by the discussion of the major findings.

**Table 3**        **Means, S.D, and t-values for the learner related beliefs and practices**

| S# | Statements | Mean | | t-Value |
|---|---|---|---|---|
| | | Espoused | Enacted | |
| 1 | Encourage expressions of feeling and emotion | 4.25 (0.65) | 3.94 (0.96) | 2.19* |
| 2 | Finding ways to meet with individual needs of the learners | 4.35 (0.68) | 4.01 (0.98) | 2.32* |
| 3 | Encourage students to make use of ICTs | 4.32 (0.65) | 3.97 (0.97) | 2.47** |
| 4 | Build students self-confidence and self-esteem | 4.76 (0.46) | 4.49 (0.70) | 2.74** |
| 5 | Develop students' critical thinking and problem solving capabilities | 4.60 (0.49) | 4.31 (0.71) | 2.78** |
| 6 | Provide opportunities to students to work collaboratively outside the classroom | 4.51 (0.61) | 4.03 (0.99) | 3.45** |

*Values in parenthesis represent standard deviation,\*p<0.05=significant,\*\*p<0.01=highly significant*

- Significant variation was observed when mean scores of espoused belief (4.25) and enacted practices (3.94) were compared regarding the statement 'encouraging expression of feeling and emotion'. This means that although teacher educators expressed belief in encouraging an expression of feeling and emotions, this belief was less mirrored in classroom practices.

- Relatively higher mean score was computed for espoused practice (4.35) as compared to the mean score of enacted practice (4.01) concerning finding ways to meet with individual needs of the learners. The variation between the espoused and enacted mean scores suggest that teacher educators' espoused belief does not align with their enacted practice when it comes to addressing individual needs of their students. This finding is further confirmed by class observation showing that teacher educators did not demonstrate awareness of individual learning needs of the students.

- Refresher-course wise difference revealed that the enacted mean score of teacher educators who have attended various refresher courses was comparatively higher (4.2) than those who have not attended any refresher course (3.47). This finding suggests that the teacher educators who have participated in various refresher courses are more likely finding ways to meet the individual needs of students in comparison with the teacher educators who have not attended such courses. It further highlights that refresher courses are beneficial for the improvement of teaching practices enacted in the actual classrooms.

**Table 4    Means and t-values of the teacher educators who have /have not attended refresher courses for the learner related beliefs and practices**

| S. # | Statement | Mean | | Total | t-Value |
|---|---|---|---|---|---|
| | | Yes | No | | |
| 1 | Find the ways meet with individual needs of the student | 4.2 | 3.47 | 4.01 | 1.107** |

*** p<0.01 = highly significant*

▪ The highly significant difference was observed while comparing the mean scores of Espoused and Enacted practices about encouraging students to make use of ICTs. Thus, the findings of this study indicate that despite of teacher educators' espoused belief, students are not encouraged to make use of ICT in teaching and learning process. This finding is also supported by another finding from classroom observation which showed that out of eighteen cases, students were encouraged to use ICT in only one case. The variation in espoused belief and enacted practices may be attributed to the perceived lack of access to internet and other technological resources which was indicated by a number of the participants during interviews.

▪ According to the survey results, the highly significant difference was observed when the mean scores of espoused (4.76) and enacted (4.49) practices were compared together related to the statement 'build students' self-confidence and self-esteem'. From this finding, it appeared that although the teacher educators espoused that they should build students' self-confidence and self-esteem, this belief is less expected to be enacted in the actual classroom teaching.

- The survey data regarding development of students' critical thinking and problem solving capabilities showed that a moderately higher mean score was estimated for Espoused (4.60) in comparison of Enacted (4.31) mean score, suggesting that teacher educators' espoused belief are not consistent with their enacted practices. This is also supported by finding from classroom observation which suggests that only five lessons were noted to be developing critical thinking among students. This was determined by examining the lesson outcomes established by the teacher, and by analyzing the complexity level of questions asked by the teacher.

- The highly significant difference was observed when mean scores of espoused (4.51) and enacted (4.03) practices were compared regarding provision of opportunities for students to work collaboratively outside the classroom. Relatively high mean score was computed for espoused side in comparison of the mean score for enacted side, suggesting that although teacher educators expressed the belief in collaborative learning tasks outside the classroom, their actual teaching practice is more likely to be limited to providing students with collaborative learning tasks inside the classroom.

### Method Related Beliefs and Practices

The survey category used for measuring the variation between teacher educators' espoused beliefs and enacted teaching practices in relation to the various instructional methods included eight statements. Out of those eight statements in the category, four statements were found to have significant variations between espoused beliefs and enacted practices whereas the remaining four statements had no statistically significant variation.

- No significant variation between teacher educators' espoused beliefs and enacted practices was found on a number of method related variables such as teaching in a way that involves all students with additional attention for those who need it , asking a lot of questions while teaching, using a variety of questioning techniques; and ensuring a comfortable classroom environment. Findings from classroom observation suggest that teacher educators mostly involved students in lesson discussion and other activities; and they did ask a number of questions. However, classroom observation does not confirm that teacher educators asked a variety of questions in terms of various cognitive levels, the questions asked in most of the observed classrooms were factual, content-based and mechanical. In addition, teacher educators reported in survey questionnaire that they provide additional attention to the students who need it; however there was no observed attempt to pay attention to non-participant learners.

- Although the variation between espoused beliefs and enacted practices related to instructional methods was not statistically significant, the data in table 5 showed that there was statistical significant variation across gender on the variable regarding teaching in a way that involves all students with additional attention for those who need it. The female participants had a greater mean score (4.44) as compared to lower mean score (4.06) of their counterpart. This suggests that female teacher educators are more likely to involve all students while teaching as well as to offer additional attention to the students in need.

**Table 5      Gender wise Means, and t-values of the teacher educators for the method related beliefs and practices**

| S. # | Statements | Mean | | Overall | t-Value |
|---|---|---|---|---|---|
| | | Male | Female | | |
| 1 | teach in a way that involves all students with additional attention for those who need it | 4.06 | 4.44 | 4.25 | 2.071* |

*\* p<0.05 = significant*

▪ The results in table 6 also show that the teacher educators who had not recently attended a refresher course obtained higher mean score (4.29) in enacted practice on the statement concerning asking a lot of questions while teaching. Hence, teacher educators who have not attended refresher courses tend to ask more questions while teaching as compared to those who have participated in such courses. One explanation for this variation could be the fact that refresher courses generally develop teachers' skills in planning and executing meaningful learning activities. Therefore, teacher educators who attend such courses opt to involve students in various cooperative learning activities rather than explaining content and accomplishment.

**Table 6      Means and t-values of the teacher educators who have /have not attended refresher courses for the method related beliefs and practice**

| S. # | Statement | Mean | | Total | t-Value |
|---|---|---|---|---|---|
| | | Yes | No | | |
| 1 | Ask a lot of questions while teaching. | 3.69 | 4.29 | 3.84 | 1.093* |

*\* p<0.05 = significant*

The statements that showed significant variations in the sub-section of method related beliefs and practices are presented in table 7 followed by the discussion of the major findings.

**Table 7**     **Means, S.D, and t-values for the method related beliefs and practices**

| S# | Statements | Mean | | t-Value |
|----|-----------|------|---|---------|
| | | Espoused | Enacted | |
| 1 | Emphasis reward rather than punishment | 4.43 (0.69) | 4.15 (0.96) | 1.93* |
| 2 | Use variety of instructional material in their teaching | 4.51 (0.61) | 4.22 (0.91) | 2.21* |
| 3 | Use a variety of instructional approaches | 4.57 (0.69) | 4.28 (0.80) | 2.27* |
| 4 | Teach in way that recognizes different learning styles and abilities. | 4.68 (0.50) | 4.32 (0.63) | 3.60** |

*Values in parenthesis represent standard deviation,* $p<0.05$=significant,** $p<0.01$=highly significant*

- Significant variation was observed when scores of espoused (4.43) and enacted (4.15) practices were compared together. The higher mean score of the espoused belief indicates that teacher educators do acknowledge the importance of giving rewards rather than punishment, but such belief is less likely to be implemented in actual classroom situation.

- According to the survey results, relatively higher mean score was obtained for espoused (4.51) practices as compared to the mean score of enacted (4.22) practice, and the difference on these two mean scores suggest that teacher educators espoused the belief that teachers should use variety of instructional material in their teaching. However; this belief is less likely to be reflected in the enacted teaching practices.

▪ The data further showed in table 8 that there was statistical significant variation in gender wise distribution on the variable regarding use of a variety of instructional material in teaching. The female participants had a greater mean score (4.44) as compared to lower mean score (4.00) of the male participants. This suggests that female teacher educators are much more likely to employ various instructional materials in teaching than the male teacher educators.

**Table 8    Gender wise Means, and T-values of the teacher educators for the method related beliefs and practices**

| S. # | Statements | Mean | | Overall | T-Value |
|------|------------|------|---------|---------|---------|
| | | Male | Female | | |
| 1 | Use variety of instructional material in their teaching | 4.00 | 4.44 | 4.22 | 2.042* |

*\* p<0.05 = significant*

▪ Significant variation was observed when mean scores of espoused belief (4.57) and enacted practice (4.28) regarding use of a variety of instructional approaches were compared. The variation suggests that teacher educators expressed their belief in employing different instructional approaches, but their reported teaching practices seemed at variance

▪ The survey results show that there is statistically significant difference between the mean scores of espoused belief (4.68) and enacted practices (4.32) regarding addressing different learning styles and abilities of learners. Despite the espoused belief, teacher educators are much less likely to teach in a way that addresses different learning styles. This is in line with earlier mentioned finding suggesting that teacher educators are less expected to consider individual needs of the learners.

## Content Related Beliefs and Practices

The survey category used for measuring the variation between teacher educators' espoused beliefs and enacted teaching practices related to content included four statements. All of those four statements were found to have no statistically significant variation.

- No significant variation between teacher educators' espoused beliefs and enacted practices was found on all four content related statements such as developing clear objectives for each lesson, seeking out new information about the subjects they teach and uses this to enhance teaching and learning, expecting that effective teacher must be experts first in their own subject areas; and covering the required which content accurately and its delivery in the allotted time.

- The survey results demonstrated that the enacted mean score for female respondents was significantly greater than the mean score for male respondents on the statement about developing clear objectives for each lesson. Relatively higher mean score (4.76) of female teacher educators indicates that the female teacher educators are more expected to develop clear lesson objectives than the male teacher educators.

- The data in table 9 also revealed that there was statistical significant variation in gender wise distribution on the statement about seeking out new information about the subjects they teach and uses this to enhance teaching and learning. The greater mean score (4.65) of the female respondents in enacted side suggests that female teacher educators are more expected to be informed about the latest knowledge in their subject area.

**Table 9    Gender wise Means, and T-values of the teacher educators for the content related beliefs and practices**

| S. # | Statements | Mean | | Overall | T-Value |
|------|-----------|------|--------|---------|---------|
|      |           | Male | Female |         |         |
| 1 | Develop clear objectives for each lesson. | 4.32 | 4.76 | 4.54 | 2.551* |
| 2 | seek out new information about the subjects they teach and uses this to enhance teaching and learning | 4.29 | 4.65 | 4.47 | 2.283* |

*\* p<0.05 = significant*

### *Assessment Related Beliefs and Practices*

The last category in the survey questionnaire was used to explore teacher educators' espoused beliefs and enacted practices about assessment and its procedures. The category of assessment related included seven statements in both espoused and enacted side. Of seven statements, four were found to have significant variations between espoused beliefs and enacted practices whereas the remaining six statements had no statistically significant variation.

No significant variation between espoused beliefs and enacted practices of teacher educators was found on a number of statements such as expecting from student to score well on examinations, developing assessment questions that are well linked to the instructional objectives; and accepting responsibility for their own professional development. Although the variation between espoused beliefs and enacted practices was not statistically significant, the espoused beliefs had comparatively higher mean score than enacted practices on all statements.

▪    Despite the insignificant variation between overall mean scores of the espoused belief and enacted practice on the statement regarding development of assessment questions

that are well linked to the instructional objectives, there was a significant effect for gender with female teacher educators receiving higher mean scores (4.56) than male teacher educators as shown in table 10. This indicates that female teacher educators are more likely to match assessment questions with the instructional objectives.

**Table 10  Gender wise Means, and t-values of the teacher educators for the assessment related beliefs and practices**

| S. # | Statements | Mean | Overall | t- | |
|---|---|---|---|---|---|
| | | Male | Female | Value | |
| 1 | Develop assessment questions that are well linked to the instructional objectives | 4.03 | 4.56 | 4.29 | 2.524* |

*\* p<0.05 = significant*

The statements that showed significant variations are presented in table 11 followed by the discussion of the major findings.

**Table 11     Means, S.D, and t-values for the assessment related beliefs and practices**

| T. No. | Assessment related practices | Mean | | t- |
|---|---|---|---|---|
| | | **Espoused** | **Enacted** | **Value** |
| 19 | Use the results of students assessment to evaluate the effectiveness of their teaching | 4.26 (0.70) | 3.96 (0.87) | 2.27* |
| 20 | Provide students with constructive feedback on their learning | 4.57 (0.58) | 4.19 (0.88) | 2.97** |
| 21 | Encourage self-assessment strategies among students | 4.44 (0.67) | 4.00 (0.096) | 3.09** |
| 22 | Report assessment results and ongoing student data to parents and/or principal | 4.09 (0.74) | 3.07 (1.26) | 5.70** |

*Values in parenthesis represent standard deviation, \* p<0.05 = significant, \*\* p<0.01 = highly significant*

- The survey estimation regarding use of the results of students' assessment to evaluate the effectiveness of their teaching showed that a relatively higher mean value was obtained for espoused (4.26) belief in comparison with the mean value of enacted (3.96) practices, showing that teacher educators' practice is not align with their practice.

- Relatively higher score was computed for espoused (4.57) belief as compared to the score of enacted (4.19) practice on the statement about providing students with constructive feedback on their learning. The highly significant variation indicates that teacher educators' belief about providing students with constructive feedback on their learning does not align with their reported practice.

- The data in table 12 further showed that there was statistically significant variation in gender wise distribution on the statement about providing students with constructive feedback on their learning. The female participants had a greater mean score (4.41) as compared to lower mean score (3.97) of the male participants. This suggests that female teacher educators are much more likely to offer students with constructive feedback than the male teacher educators.

**Table 12      Gender wise Means, and T-values of the teacher educators for the assessment related beliefs and practices**

| S. # | Statements | Mean | | Overall | T-Value |
|------|-----------|------|--------|---------|---------|
| | | Male | Female | | |
| 1 | Provide students with constructive feedback on their learning | 3.97 | 4.41 | 4.19 | 2.107* |

*\* p<0.05 = significant*

▪ According to the survey results in table 12 regarding encouragement of self-assessment strategies among students, a relatively higher mean value was estimated for espoused practices (4.44) as compared to the enacted practices (4.00). Thus, the significant variation implies that teacher educators believe in encouraging self-assessment strategies among student-teachers however, such belief is less likely to be reflected in their teaching practice.

▪ As shown in table 12, the highly significant difference was observed when scores of espoused (4.09) and enacted (3.07) practices were compared on the statement about reporting assessment results and ongoing student data to parents or principals. Hence, there is significant evidence to conclude that teacher educators espouse the belief that teachers should communicate assessment results to parents and principals, but their enacted practices are less likely to be aligned with their belief.

### *Analysis of Findings from Observation Protocol*

This part of the report presents analysis of qualitative data that was collected through classroom observations and in-depth individual interviews in order to provide context and deepen our understanding of findings from quantitative survey. Eighteen teacher educators from both colleges of education and universities were observed in their actual classroom teaching to identify the enacted teaching practices of teacher educators in B.Ed. (Hons) and ADE programs in the province of Sindh. Each of the 18 lessons was observed by the two non-participant observers. In addition, the observations were done with the help of the checklist developed by the research team. Therefore, during classroom observations detailed notes were prepared for that particular teacher's teaching

methods. Major findings that emerged from the classroom observations are discussed below.

## Use of various teaching methods

From classroom observations, it became evident that although survey results show that teacher educators held beliefs about interactive approach to teaching; their classroom practice does not completely support such beliefs. Chart 7 below illustrates the results of the teacher educators' teaching practices and methods.

### Chart 7 Observed teaching methods & practices used by the teacher educators in the classroom
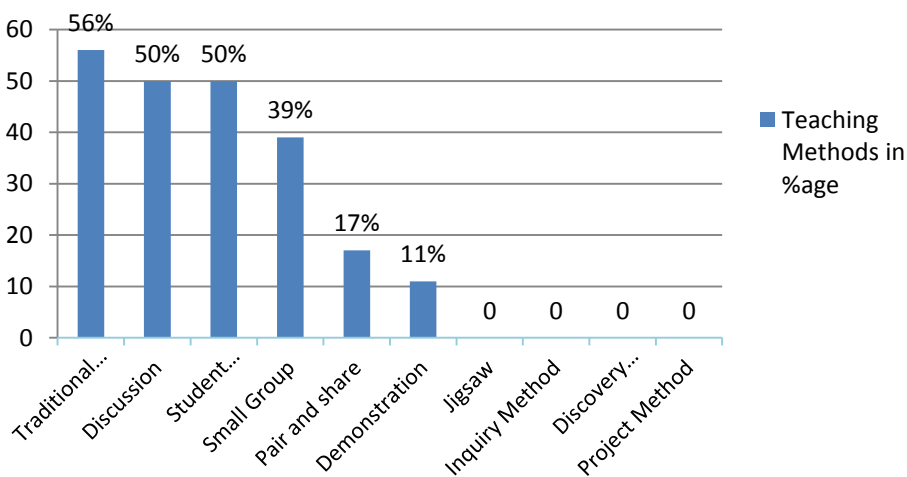


As chart-7 illustrates that 10 out of 15 (56%) teacher educators used traditional lecture during which their focus was mainly upon mastery of the delivered content. The methods that were not used in any of the eighteen classroom observations were jigsaw, inquiry method, discovery method, and project method. Only 2 (11%) teacher educators used demonstration methods. Here it is important to note that these two lessons using demonstration

method were given by the teachers teaching the course 'computer literacy' and these lessons were actually delivered in computer labs where teachers were practically showing students how to use computers. Thus, one important observation is that discipline becomes an important variable in explaining variance in teaching practices and methods. However, the results obtained from classroom observation also showed evidence of the use of some interactive teaching strategies in classrooms as 7 (39%) teacher educators used group work, 9 (50%) of them used discussion, and 9 (50%) of them employed student presentation in their lessons. This could be associated with the number of the refresher courses and subject support forums organized under Teacher Education Project for the teacher educators teaching in B.Ed. (Hons.) program.

### Classroom Interaction

The other important findings from classroom observations are related to the classroom interaction. Major findings pertaining to classroom interaction are discussed under the two subsections; role of the teacher and role of the students.

### Role of the teacher

Some major findings related to the role of the teacher emerged from the classroom observation are presented in table 13 below.

**Table 13          Observation of the classroom situation**

| S. # | Role of the Teacher | N = 18 | |
|---|---|---|---|
| | | Total | % |
| 1 | Explaining content | 15 | 83.3 |
| 2 | Questioning | 15 | 83.3 |
| 3 | Giving Directions | 11 | 61.1 |
| 4 | Involves of variety of Students | 10 | 56.0 |
| 5 | Coverage of the required content accurately and in the allotted time | 10 | 56.0 |
| 6 | Encouraging and motivating students | 09 | 50.0 |
| 7 | Accepting and using students' ideas | 08 | 44.4 |
| 8 | Build students self-confidence to participate in class | 08 | 44.4 |
| 9 | Teachers' constructive feedback on students' learning | 06 | 33.3 |
| 10 | Develop critical thinking in students | 05 | 28.0 |
| 11 | using variety of question techniques | 04 | 22.2 |
| 12 | encourage self-assessment strategies | 03 | 17.0 |
| 13 | Provides well-designed materials | 02 | 11.1 |
| 14 | Employees other tools/instructional aids (i.e. Technology, Computer, Video, Overheads) | 02 | 11.1 |
| 15 | employs other non-projective aids | 01 | 06.0 |
| 16 | Demonstrates awareness of individual student learning needs | 00 | 00.0 |

Of the 18 teacher educators who were observed in their classroom, 15 (83.3%) focused on explaining content and asking a lot of questions while explaining the content to the students. Likewise, the required content was observed to be completely covered in the allotted time. The explanation of the content was mostly done in two ways; the teachers first read the content aloud and then explain it in the students' native language or sometimes the teachers asked students to read the content aloud (mostly in English) and then the teachers explained it in either Urdu or Sindhi. Sometimes, the oral explanation didn't match with the written format of the content. However, a great deal of focus on the content knowledge shows that it was believed to be highly essential for the students' overall understanding of the course material and spending a substantial amount of time on explaining content suggests that it was considered to be most commonly used teaching practice of the

teacher educators. The explanation of the content was generally followed by a series of questions asked by the teachers.

However, the questions asked by the teachers were mainly content based question which could be easily answered by the simple recall of the content knowledge explained by the teacher during the lesson. Only 04 (22.2%) of the 18 teacher educators were observed to be raising a variety of questions. In other words, this situation reveals that questions asked in most of the observed classrooms were factual and could be answered in few words. This observation also helps to understand teacher educators' beliefs about the purpose of asking questions in teaching and learning which seems to be 'assess learning' instead of facilitating learning.

The involvement of the number of students in the lessons was observed in 10 (56%) teachers' lessons. Students' involvement in the lesson was shown by their participation in the lesson. Nevertheless, it was always the teacher who invited the students to participate in the discussion and this participation was mainly in the form of answering questions that were asked by the teacher. It was also observed that teachers tried to involve most of the students but not all of the students.  That is to say, in the class of not more than 25 students, there were few students who didn't contribute even a single word to the lesson; but there was no observed attempt to involve such non-participant learners. This impression is also confirmed by another finding of the classroom observation showing that not even a single teacher demonstrated awareness of individual learning needs of the students.

In 50% of the observed cases, teacher educators were found to be encouraging and motivating their learners. This was mostly accomplished with the help of positive verbal remarks by the teacher on the performance and participation of their students. 08

(44.4%) of the 18 teacher educators were observed as accepting and using students' ideas whereas only five of them were noted to be developing critical thinking in the students. Those five teachers were encouraging students to think in different ways or to come up with alternative solutions. This finding confirms the survey results (table 3) which suggest a highly significant difference between the espoused and enacted beliefs of the teacher educators.

The use of the projected instructional aid was observed in only 02(11.1%) of the 18 lessons. One of the two lessons was delivered by the teacher of the course "communication skills" who gave power point presentation to explain the "how to identify audience and purpose of the text" (topic). The second lesson with the use of projected instructional aid was delivered by the teacher of the "computer literacy" course when the teacher tried to explain about different "shortcut keys" by giving practical demonstration with the help of computer. The use of the non-projected aids was observed in only one lesson. Such a little use of both projected and non-projected aids could be linked to the perceived lack of instructional resources as well as to the lack of awareness and ability of the teacher educators to use technology related teaching aids. Teacher educators reported during interviews that lack of resource is a major obstacle in the way of implementing interactive teaching and learning strategies.

### *Role of the students*

Table 14 provides important findings regarding the role of the students in classroom situation that were observed during the study.

**Table 14          Observation of the classroom situation**

| S. # | Role of the students | N = 18 | |
| --- | --- | --- | --- |
| | | Total | % |
| 1 | Answers by Students | 16 | 89 |
| 2 | Involvement of all students | 11 | 61 |
| 3 | Questions by Students | 10 | 56 |
| 4 | Opportunities for students to work collaboratively | 09 | 50 |
| 5 | Spontaneous talk | 05 | 28 |
| 6 | Additional attention for those students who needed most | 03 | 17 |
| 7 | Demonstrate self confidence in students | 03 | 17 |
| 8 | Students take leadership | 02 | 11 |
| 9 | Encourage students to make use of ICTS | 01 | 5.5 |
| 10 | Encourage students to make use of AV Aids | 00 | 00 |

The results of the classroom observation reveal that answers given by the students were witnessed in 16 (89%) of the 18 classrooms. Mostly, the students answered the questions that were asked by the teachers and the answers given by the students were typically short and sometimes limited to one word only. Further, the students were permitted to ask questions in 10 (56%) of the 18 lessons. Additional attention by the teacher for the students with special learning need was observed in only two cases.

In the one of those two lessons, teacher assigned group task (different groups of the students were asked to draw different types of triangles) to the class while the teacher worked with the two students and explained to them various types of triangles and how to draw them. Apart from the two lessons, no other lesson was found to be incorporating provision of additional to the learners with special learning needs. Again, this finding supports results from the survey data, and suggests that although teacher educators believe that they should address individual needs of their students, such espoused belief was not enacted in actual classroom situation.

09 (50%) out of the 18 lessons encompassed opportunities for the students to work collaboratively. This was mainly done by assigning group tasks to the students. This finding of the classroom observation is in line with the survey questionnaire which showed that there was no significant difference between teacher educators espoused and enacted practices related to collaborative work in the classroom.

As shown in table 14, the students were encouraged to use ICT in only 01 (5.5%) classroom observation. The lesson was from the course "communication skills" and it was about "how to write a CV". The teacher first orally explained the various components of curriculum vitae and then students were expected to use word processors and have their CV written in a proper format. However, none of the classroom observations gives evidence that students are encouraged to use AV aids in the classrooms.

### *Analysis of Findings from Interview Protocol*

This section of the study presents analysis of qualitative data that was collected through in-depth semi-structured interviews. Using a purposive sampling technique, 18 teacher educators were selected from the colleges and universities that offer ADE program. The interview protocol is provided in Appendix and contains a series of questions designed to ascertain the rationale that influences teacher educators' pedagogical preferences.  Table 15 shows the gender and institution wise composition of the sample for interviews.

**Table 15   Gender and institution wise distribution of the selected sample for interview protocol**

| Gender | Male | Female | N |
|---|---|---|---|
| | 12 | 06 | 18 |
| Institution | Universities | Elementary Colleges | N |
| | 03 | 06 | 09 |

All interviews were audio recorded and transcribed and then they were analyzed for major themes. This addressed the research question # 2. Several themes that emerged from all 18 interviews are discussed below.

## *Pedagogical Preference*

Teacher educators' pedagogical preferences were classified into three categories namely (a) traditional, (b) interactive and (c) mixed approach. Most (72%) of the interview participants preferred mixed method teaching approach, followed by interactive approach which was elected by (11%) respondents. About (17%) reported that their teaching practices are based on traditional approach to teaching.

Further, the teacher educators were asked about the rationale for choosing a particular instructional approach. Teacher educators' rationales for their pedagogical preferences are described under two subsections; (a) rationale for choosing interactive teaching approach, and (b) rationale for choosing mixed teaching approach.

## *Rationale for interactive teaching approach*

The teacher educators, who asserted that their teaching practice is based on the interactive approach, explained that learning becomes more meaningful and effective when such teaching techniques are

used as brainstorming, jigsaw, think-pair-share etc. The second reason for preferring an interactive approach explained by the respondents was active involvement of their students in various learning tasks.

It was reported that students learning is maximized when they are practically involved in carefully designed learning activities. By using interactive approach it is possible to involve all students in the class. In contrast, in traditional classrooms only few learners are given chance to participate. Teacher educators who preferred interactive approach also reported that it is the need of the present age. Since the students today are more diverse and technology oriented, the traditional approach cannot be helpful in arousing their interest and enthusiasm to participate in the given learning tasks. Few teacher educators also commented that the syllabus for the new courses in ADE program demands them to apply interactive teaching strategies. The main reasons provided by the teacher educators for preferring an interactive teaching approach are summarized below.

- It is the need of the present age.
- Students' learning is maximized
- It is the demand of the new curriculum.
- Learning becomes more meaningful and effective.
- It helps to maintain motivation and interest of the students.
- Active involvement of the students in various learning tasks.

### *Rationale for mixed teaching approach*

The term "mixed approach'' implies the combined use of both interactive and traditional instructional practices. When asked why teacher educators prefer mixed teaching approach, it was found that although teacher educators believe that learning becomes meaningful when various interactive techniques of instruction are

used, they simply cannot totally rely on it. Various reasons were assigned why teacher educators use traditional teaching approach along with interactive techniques. The foremost reason appeared to be the comfort level of the teacher educators with direct transmission of the knowledge.

The teacher educators explained during their interview that traditional practices such as giving lectures are easier to implement in the classrooms and they are usually implemented with no special preparation.

Teacher educators also shared that not only teachers but students are also more comfortable with traditional teaching approach because it is the method in which they have been taught in their previously attended schools. Mixed teaching approach was also preferred because it was believed to be more useful for completing the required content in the allotted time duration.

It was further reported that student centered activities particularly collaborative learning tasks consume more time than the teachers' expectation. In addition, teacher educators who selected mixed teaching approach felt that students can be better prepared for final examinations if the required content is completely covered and properly explained. The main reasons given for preferring a mixed teaching approach are summarized as follows.

- Teacher educators are more comfortable with mixed approach.
- It is also preferred by the students who are habitual of rote learning.
- It helps to cover the required content in allotted time duration.
- Students can be better prepared for examination.

## Challenges for implementing interactive teaching approach

While explaining the rationale for their pedagogical preferences, many teachers talked about the factors that hamper them from using new teaching approaches that they learn during various professional development programs. The first and foremost challenge cited by the teacher educators was the lack of required teaching resources. Teacher educators reported that the existing and available resources in the libraries can only prepare them for traditional lectures and they also feel that application of interactive approach is a high cost activity that their institutes are either unable or unwilling to support. They find it difficult to use handouts and worksheets in the classrooms because their efforts are not financially supported by their institutes. Participants also commented that they do not have access to online and technology-related teaching and learning resources.

The teacher educators also shared that for implementing active learning; well-planned learning experiences are required. In this regard, teacher cited two problems with planning for interactive teaching. First, they find it difficult to plan meaningful and outcome oriented learning experiences. Second, the preparation time required for interactive teaching-learning approach was reported to exceed three hours. Thus, planning for interactive teaching was considered to be a more time-consuming activity than planning for traditional lectures. In this regard, teacher educators also raised concern that the coverage of entire syllabus would not be possible if teachers frequently use interactive teaching approach. This concern could confine teacher educators to a limited use of interactive teaching practices in their classes.

Teacher educators who participated in this study further revealed that inclusion of the underprepared students (those with poor knowledge of the basic academic skills) in the program was also

considered as a major obstacle in the implementation of the interactive approach to the instruction. Most of the students were reported to have poor reading and writing skills. Thus, for such students it was difficult to take active participation in independent and problem-based learning activities which is now required by the new curriculum of B.Ed. (Honors) and ADE program. The major challenges in the employment of interactive teaching practices are summarized below.

- Lack of required teaching resources.
- No or little access to online and other technology related resources.
- Planning and implementing interactive teaching is a time consuming activity.
- Students' with poor knowledge of basic academic skills.

## *Conclusions*

This study examines the current teaching practices of the teacher educators who are teaching in B.Ed (Honors) and ADE program. The study aims to explore how teacher educators' enacted practices are guided by their espoused beliefs. The results of the survey questionnaire and classroom observations show that the teacher educators espouse sets of beliefs which are convergent with their enacted practices, and they also espouse sets of beliefs which are divergent from their enacted practices.

The study finds significant difference between espoused and enacted practices in terms of teaching in a way that recognizes different learning styles of the learners. Although the teacher educator scored high on the espoused side, their low score on the enacted side as well as classroom observation reveals that espoused belief is not implemented in the actual classroom settings where

teachers mostly follow "one method suits all" rule. Moreover, teacher educators also espoused a strong belief in using a variety of instructional approaches and material in their teaching, this unfortunately does not happen in the classrooms. On the other hand, the study finds no significant results between espoused and enacted practices in terms of asking a lot questions and using a variety of questioning techniques. However, it is important to note here that classroom observations do not support findings from survey results related to the use of variety of questioning techniques. The findings from classroom observations suggest that teacher educators mostly asked factual questions that can be answered in few words.

The study reveals that traditional lectures, demonstration and discussion were most commonly used instructional approaches in the classrooms. Moreover, various approaches such as jigsaw, inquiry method, discovery method, and project method were not found to be used by the teacher educators. However, the study also showed evidence of the use of some interactive teaching strategies in classrooms such as brainstorming, group work, and student presentation in their lessons. This could be associated with the number of the refresher courses and subject support forums organized under Teacher Education Project for the teacher educators teaching in B.Ed. (Hons.) program.

With regard to learner related practices, the study showed statistically significant difference on a number of statements which were found to have a high level of agreement in the espoused side. There was a statistically highly significant difference between espoused and enacted practices related to the development of critical thinking and problem solving capabilities. Despite teacher educators' espoused belief in providing opportunities to the students for collaborative learning outside the classroom, students

were mostly assigned group tasks that can be done in classroom time duration.

While there is a significant difference on some learner related practices between espoused and enacted practices, there is also convergence on various practices related to the content. Teacher educators espoused the belief that they should cover the required content in given time duration and their classroom practice was in accordance with such belief. In the classroom, teacher educators put great emphasis on ensuring that the content is well explained and therefore larger amount of instructional time is devoted to explaining content than any other learning activities in the classroom.

Teacher educators' beliefs and practices concerning constructive feedback and self- assessment strategies also had highly significant difference. The study finds significant evidence to conclude that teacher educators' belief about providing students with constructive feedback on their learning does not align with their classroom practice. In addition, teacher educators believe in encouraging self-assessment strategies among students. However, such belief is less likely to align with their teaching practice.

Based on the results, the study proposed three categories of teacher educators' pedagogical preferences namely traditional, interactive and mixed approach. The study shows that teacher educators preferred methods that they find convenient to be implemented in the classrooms. Further, the pedagogical preference of the teacher educators is also linked to the perceived effectiveness of a particular instructional approach for students' learning. This indicates that teacher educators are more likely to use instructional strategies that they believe will be effective for the students of the present age and that will better prepare them for final examinations. Institutional factors could also encourage or discourage teacher educators from

preferring and implementing the required teaching approach. Thus, the study could conclude that required changes in the teaching practices will come about when teacher educators consider the overall environment of their institutions as favorable for the implementation of the new approaches of instruction demanded by the new curriculum of B.Ed (Honors) and ADE program.

## *Recommendations*

In examining the teacher educators' espoused and enacted teaching practices in the context of the province of Sindh, it scale appeared that teacher educators could be placed along a continuum, that extends from the traditional teaching approach to more innovative teaching approach. Teacher educators at present seemed to be close to the midpoint of the continuum which implies that most of the teacher educators included in the study were found to be using mixed teaching approach (i.e. combination of both traditional and interactive approaches to teaching). This could be associated with various refresher courses and subject support forums organized under Teacher Education Project funded by USAID for improving the professional capacity of teacher educators teaching in B.Ed. (Hons.) program. However, the study also raised a concern that if potential actions are discontinued with the end of the project, teacher educators might return to traditional teaching methods instead of moving forward with the interactive teaching and learning pedagogies on the continuum. In addition, the study has highlighted various contextual constraints that hamper teacher educators from implementing innovative and interactive teaching strategies. Within this framework, the study proposes the following recommendations.

## Central resource and training center

Based on its findings, the study recommends that a central resource and training center should be established at the provincial level. The CRTC would be responsible to generate and dispense a pool of instructional materials that the institutes of teacher education require in order to implement various curricular innovations that are initiated under Teacher Education Project. It should also serve as a platform where successful teaching practices and well planned learning activities could be demonstrated and shared among teacher educators.

In addition, CRTC should provide other services such as professional development workshops, subject support forums, consultation assistance, and reference assistance. For this purpose, there should be well trained and competent faculty that could help the teacher educators in enacting new practices that they believe in but rarely apply due to various contextual constraints.

Teacher educators and prospective teachers should have access to curriculum materials, books, educational supply catalogs, periodicals and newsletters. Moreover, they should have access to the selective and password-protected online instructional resources. Technically sound faculty should be made available to assist science, mathematics and technology educators with curriculum and instructional issues.

## Taskforce

The study also recommends that a multi-sector taskforce should be established to strengthen the links between the various key stakeholder organizations (for example, Faculties of Education in universities, colleges of Education, Provincial Institute of Teacher

Education and Bureau of Curriculum)in the field of teacher education. Taskforce should bear the responsibility for developing collaborative partnerships among faculties and colleges of education; and facilitate dialogue about issues related to the field of teacher education. It should provide a forum for discussing the implications of national initiatives at the provincial level for improving and strengthening new reforms in teacher education programs.

## *Inbuilt mechanism for continuing professional development (CPD)*

There must be inbuilt mechanism for continuing professional development (CPD) process in order to support teacher educators in implementing the reform initiatives in the field of teacher education. In this regard, an advantage from the experienced and expert practitioners may be taken by inviting them in sessions of conferences, subject support forums (SSF)  and discussion boards may be set up to encourage participation from other fields.

Further, there is need to encourage and motivate teacher educators to accept responsibility of their own professional development. This could be done by improving reward structure and developing a clear linkage between professional development and promotion of teacher educator with a particular reference to the Colleges of Education where promotions are granted on seniority basis. Hence, it is recommended that teacher educators' participation in three professional development activities at minimum should be required within the duration of five-year job experience. In addition, promotion of teacher educators working in colleges of education should also account their participation in various research endeavors.

### The quality control mechanism

The ADE and B.Ed. (Honors) programs are offered by universities and colleges of education in the province of Sindh. At the university level, Quality Enhancement Cell (QEC) has been established with the help of the Quality Assurance Agency of the Higher Education Commission. On the contrary, there is complete absence of such internal quality control mechanism that could ensure the quality of new degree programs in the elementary colleges of education. Therefore, it is recommended by the study that The Quality Control Mechanism (QCM) should be established in all Elementary colleges of Education in Sindh to ensure and sustain the academic quality and standards of teacher education programs in a systematic and uniform way with a particular reference to ADE and B.Ed. (H) program.

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