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Pedagogical Practices in D.El.Ed. Programme of DIETs of Odisha: An Exploration

Abstract

The paper tries to explore the pedagogical practices of Diploma in Elementary Education (D.El.Ed.) programme of Odisha with specific reference to foundation courses, pedagogy courses and practicum. A mixed method was used wherein convergent parallel design has been employed. By using stratified random sampling technique, six District Institutes of Education and Trainings (DIETs) were selected-two each from the three revenue divisions of Odisha. From each DIET, all student teachers who were pursuing 2nd year D.El.Ed. programme and all teacher educators available during the time of data collection were taken for the study. In total 384 student teachers and 41 teacher educators participated in the study. The pedagogical practices were classified under 3 categories-inside class room, outside classroom and institutional practices. Rating scale was administered to student teachers of DIET to understand student teachers' perceptions on pedagogical practices. Classroom observation, Interview and Focus Group Discussion (FGD) are the other tools/ techniques used in the study for data collection. Data was analysed both quantitatively and qualitatively. Frequencies and percentages were calculated and in addition, content analysis was used to analyse interview and FGD data. It was found that a majority of student teachers expressed favourable response to pedagogical practices of D.El.Ed. programme. Teachers claim that a variety of methods are used to transact the curriculum. Analysis of data revealed that though some of the postulates of National Curriculum Framework for Teacher Education (NCFTE)-2009 are reflected in the overall pedagogical practices, more efforts are required in this direction to make process based elementary teacher education available at DIETs.

Introduction

India has witnessed enormous changes in the field of elementary education in the last few decades. There were lots of efforts suggested by policies, commissions and schemes to provide quality education to all children up to elementary level. The enactment of the Right of Child to Free and Compulsory Education Act in 2009 had changed the policy landscape and opened up possibilities to have a series of opportunities to strengthen the quality dimensions of elementary education in India. Considering the exponential growth envisaged in elementary education, quality has become a central point in any discussion concerning elementary education. To

achieve quality, there are several inputs that are prerequisites. Undoubtedly, one of the mandatory parameters in ensuring quality elementary education is quality pedagogic process in schools. It is also widely accepted that 'teacher quality' becomes a primary factor that determines efficient curricular transaction and ensures pedagogic processes at schools that elevate quality of elementary education. Evidently the quality of elementary education is a direct consequence and outcome of the quality of elementary school teachers. In the absence of an effective teacher all efforts will prove fructuous so far as pupils' learning is concerned. The role of the teacher has rightly been emphasized in the Programme of Action

(POA) of National Policy on Education, 1986 by arguing that the teacher is the principal means for implementing all educational programmes and for the organization of education. About teachers, the Education Commission (1964-66) observed that the teacher is undoubtedly the most important of all factors that determine quality of education and its contribution to national development. In this context, a well-planned teacher education programme for very significant in the generation of quality teachers or pedagogues.

Pedagogical practices or activities organized by the Institute are the central elements that determine the quality of schooling or of teacher education. The term encompasses learning, teaching and education as well as didactical issues. An important area is the relationship between the pedagogue's work and the learning processes. The term pedagogic practices can be referred to as an area of knowledge that deals with organised activities with the aim of leading to individuals' learning- it could be inside classroom, outside classroom or general institutional practices.

Context and Rationale

The National Policy on Education (NPE) 1986 and allied Programme of Action (POA) envisaged a district level institute to support elementary education that came into existence in the shape of DIETs. One of the major responsibilities of DIET is to empower/enrich pre-service elementary school teachers with pedagogical content knowledge. That is equip them with necessary knowledge and skills and motivate them to think of innovative teaching-learning process and eventually develop 'teacher identity' among them. DIET is conceived as the academic lead institutions for other educational institutions of the district in terms of meticulous, efficient and effective planning and execution by acting as a strong interface between school education and elementary teacher education. Therefore DIETs are

expected to reflect the changes in the school education which is undergoing tremendous changes in this knowledge economy adopting constructivist approach. This concern is reiterated in then formulated policies and curriculum frameworks including National Curriculum Framework (NCF)-2005 and NCFTE-2009. Accordingly recommendations are made to revamp the elementary teacher education programme in terms of its content, mode of transaction, assessment etc. On this line, states wise efforts were made to revise the existing D.El.Ed. curriculum to prepare quality elementary school teachers.

In the light of the recommendation of NCFTE 2009 and NCF 2005 and the model curricula developed by NCTE, the D.El.Ed. curriculum was revised by State Council of Educational Research and Training (SCERT), Odisha in 2012 and the revised curriculum has been introduced in the state from academic session 2013-14. The three major components of D.El.Ed. curriculum are Foundation courses, Pedagogy Courses and Practical Courses. From transactional point of view, the curricular inputs are mainly of three categories such as theoretical inputs, school based practicum and the workshop/project. In Odisha, SCERT had taken the lead role in developing D.El..Ed. curriculum and this has been published by the Board of Secondary Education in 2012 and implemented in 2012-13 session (Joint Review Mission (JRM) report, 2013). The JRM report mentions that the understanding of the teacher educators' regarding the basic tenets of NCF 2005, NCF-TE, 2009 is quite superficial. More importantly, the absence of an understanding of the roots of child centred education within the disciplines of philosophy and psychology is a major issues related to the academic processes in teacher education institutes. It is imperative to analyse the classroom pedagogic practices of D El Ed programme to understand the extent to which it reflects the ethos of curriculum changes envisaged by the NCTE. This would provide inputs for designing appropriate interventions to bring

quality changes to the D.El.Ed. curriculum as well to the transactional modalities for the same. To build a strong knowledge base in teacher education, well-structured in-depth researches are essential. It is observed that research focussed exclusively in the area of pre-service elementary education especially in Odisha is very sparse. The present study had been undertaken this gap with financial assistance from NCERT.

Objective of the Study

To study the pedagogical practices of D.El.Ed. programme of Odisha with respect to

- a. Methodology
- b. Resource material management
- c. Classroom management
- d. Learner Involvement
- e. Assessment

Methodology

A mixed method has been selected so that both quantitative and qualitative data, together, provide a better understanding of the research problem than either type by itself. After analyzing the rationale of using mixed method that both types of data have equal value for understanding a research problem, it was decided to use a convergent parallel design wherein quantitative and qualitative data are collected concurrently. The two data sets were analysed separately and then the two databases were interpreted together by merging the results during finalisation and sometimes even during data analysis. All DIETs of Odisha state are considered as the population of the study. But by using stratified random sampling technique, six DIETs were selected—two each from each of the three revenue divisions of Odisha. The six institutes selected were Khordha, Baripada, Jeypore, Tikabali, Sambalpur and Sonepur DIETs. From each DIET, all student teachers pursuing 2nd year D.El.Ed. were taken. In total 384 student teachers and 41 teacher educators participated in the study as sample.

Instruments Used

The following tools were used for the present study:

- *Rating Scale*: This was used on the student teachers to study and rate their views about the pedagogical practices adopted in their institutes
- *Observation Schedule*: This tool was used for teacher educators as well as student teachers for observing their pedagogical practices in the classroom.
- *Interview Schedule*: This tool was used for seeking the views of teacher educators regarding pedagogical practices in their institute and difficulties for transacting D.El.Ed. Programme in the expected manner.
- *Focus Group Discussion Schedule*: This tool was used for seeking the views and suggestions of student teachers regarding the pedagogical practices of the institute.

Analysis

The data was analysed as per the objective of the study. The data collected using rating scale and classroom observations were analysed using percentage whereas interview with teacher educators and FGD with student teachers were analysed qualitatively based on various dimensions considered in the study. Interpretation was on the basis of the analysis of both the quantitative and the qualitative data.

Analysis of Overall Pedagogical Practices in DIETs

It indicates the student teachers' perception about overall pedagogical practices is different in different DIETs of Odisha. More than 50% students of all DIETs expressed that they often perceive favourable pedagogical practices in their DIETs. Approximately 14% student teachers of one DIET and 12% student teachers of another expressed that they never perceive favourable pedagogical practices in their DIETs.

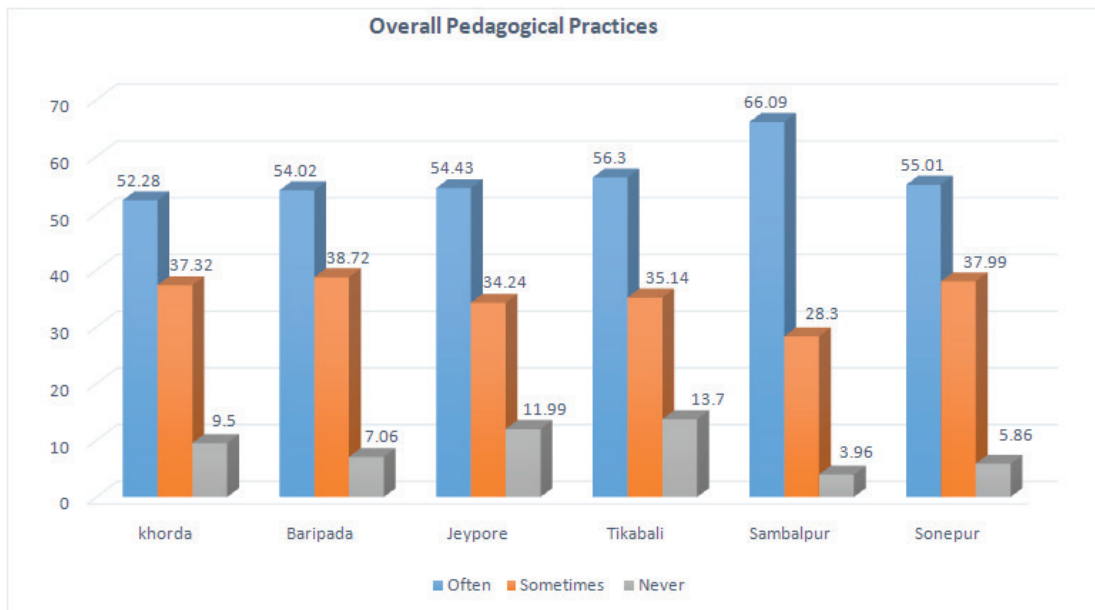


Figure 1: Overall pedagogical practices

Methodology

It indicates the perception of student teachers of different DIETs of Odisha about the methodology adopted for transaction. More than 50% student teachers of all DIETs expressed that they often perceive

favourable methodology inside classroom and the percentage is maximum at DIET, Sambalpur with around 62% whereas 10% student teachers of DIET, Jeypore never perceived the methodology is favourable in their Institute.

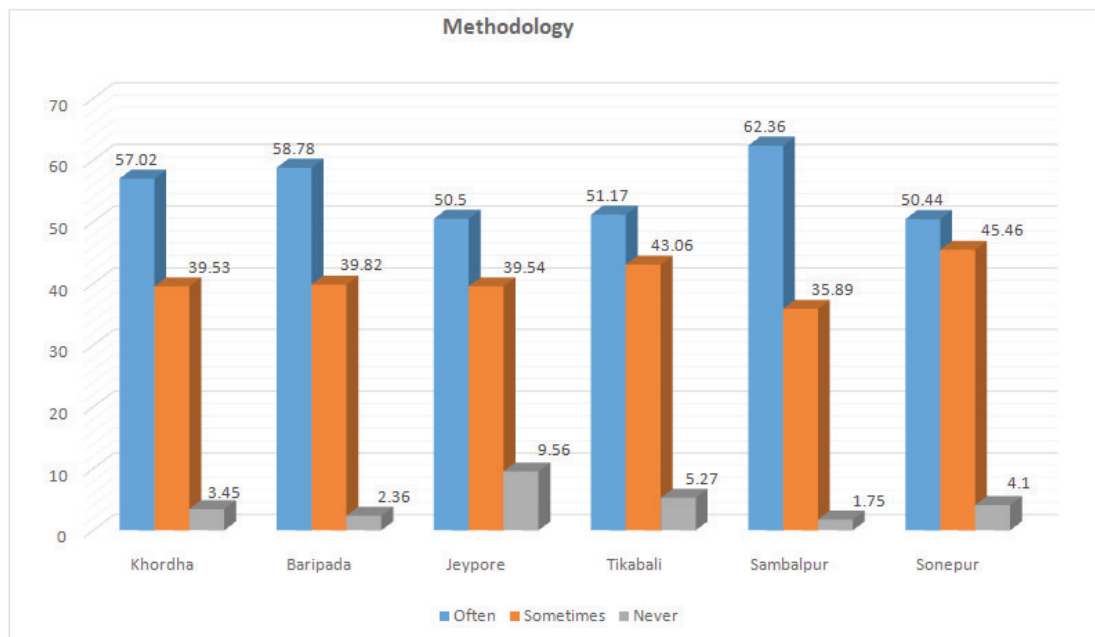


Figure 1(a): Methodology

The analysis of the pedagogical practices within classroom was done using dimension-methodology. The process was analysed based on the methods used to introduce topics in the classroom. The topic was introduced by reviewing the lesson in 53.4% of the classes observed. Introduction through posing a problem or using power point was observed only in 5% of the classes. In 29% of the classes, it was observed that teacher educators narrated a situation to introduce the topic. In Sambalpur DIET, approximately 86% classes started the lesson by stating the topic whereas none of the teacher educators of Sonepur DIET introduced the lesson by stating the topic. Only in Khordha and Sonepur DIET, posing a problem was used as a strategy to introduce a lesson. 90% of the lessons of Jeypore DIET started by reviewing the previous lesson. In DIET, Khordha, it is observed that lessons were introduced mainly by reviewing the topic or by narrating a situation. The most commonly observed method of transaction was lecture method with question and answer session and group discussion. Group activities except discussion were not very commonly observed. In comparison to foundation courses more group activities were arranged in pedagogic courses. Inquiry –based learning, Role Play etc as strategies were absent in the classes observed in all DIETs. Other transactional modalities such as document analysis, brain-storming sessions, debate, presentation by students, experimentation, document analysis, video analysis were not followed regularly in the classroom. It was observed that approximately in 83% of classrooms, questions were asked to test the understanding of learners. Out of 58 classes observed, only in one class of Khordha, DIET, questions to generate reflection among student teachers were asked. Application based questions were also rarely found in classes across DIETs. Efforts to encourage creativity and innovation among student teachers in classrooms are negligible. Only in Khordha DIET, in two classes, there was scope for students to express innovative

ideas or to respond to higher order thinking questions.

Analysis of the responses of the teacher educators on the use of different methods in classroom reveals that they believe that participatory, activity centred methods are commonly used across all DIETs. They claim that they emphasize on interactive approach such as case study, situation analysis, problem solving and demonstration. They also said that collaborative learning approach is widely used wherein discussion, group activities, group discussion and peer teaching are tried out. ICT based strategies were also mentioned by teacher educators; however, ICT integrated lessons were delimited to the power point based lecture cum discussion and the showing of video clippings in the classroom.

However, in the response to the question on ways of ensuring student teachers' participation in class, 'question and answer method' emerged to be the commonly used strategy used to involve students in the teaching-learning process. Project work, group work and presentation also were identified as methods to involve students in the teaching-learning process in few cases. When the discussion was on the topic of commonly used methods, activity method was cited by student teachers. However, to elaborate on the activity based methods, student teachers expressed that group work and discussions, play way method and lesson plan preparation were conducted in their class. Only Khordha DIET and Sonepur DIET student teachers mentioned ICT based methodologies as commonly practised methods. Laboratory activities were mentioned only by student teachers of Sonepur DIET and none could explain field based reflection as one of the transactional modalities. Inquiry based approach was also not followed in any of the DIETs as mentioned by student teachers. Though group work and group discussions were cited by many DIET students, self-study was never followed except in the form of assignments.

Resource Material Management

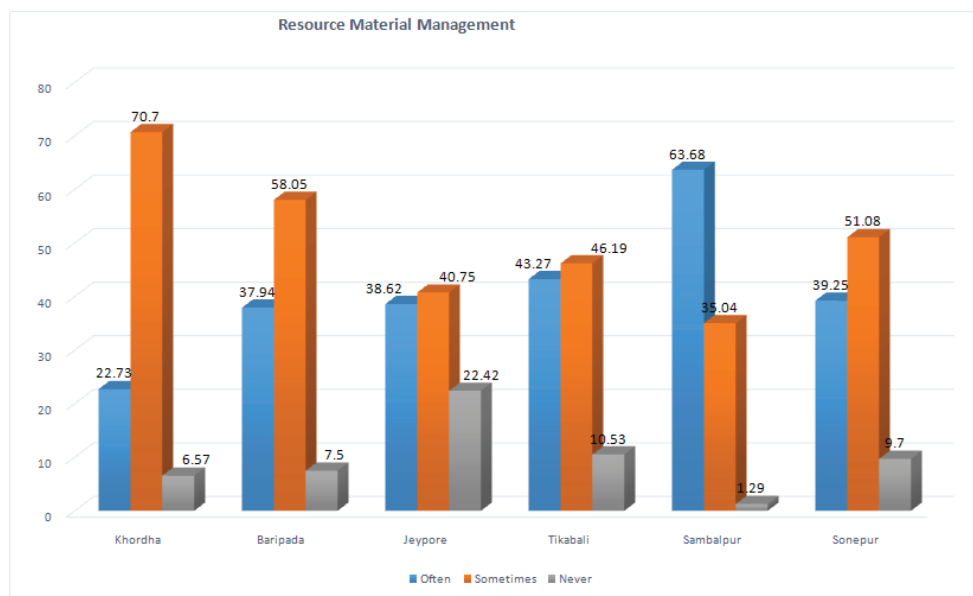


Figure 1(b): Resource Material Management

The table indicates the perception of student teachers of different DIETs of Odisha on resource material management inside classroom. Except for the student teachers of DIET, Sambalpur in the other DIET's less than 50% student teachers of other DIETs often perceived favourable resource material management. This could be compared with findings of a study conducted by Mehera (2010) who found that in general, most of the colleges that offer pre-service teacher education programme have less than appropriate level of resources in terms of infrastructure, basic amenities, quality of teaching-learning process etc. A similar finding could be seen in a study conducted by Azim Premji Foundation to understand D.Ed. colleges in Karnataka (Rishikesh, 2009). The study found that resources like library and computers are available in all colleges, however their usage is poor.

Black Board was used as a resource in 86% of classes, the next highest is text book with 51.7%. In Baripada DIET, in all the classes, black board was used and text book in half of the observed classes. Teacher educators of Jeypore DIET depend heavily on black board and text book. Though it was found that

in 92 % classes, black board was used in Sonepur DIET, however, use of text book in the class room was very minimal. No Chart or OHP were used in any of the classes. Only in Khordha and Baripada DIETs, use of LCD projectors and videos were observed. The response to the question on use of learning resources in the classroom are categorised under themes-ICT resources and non-ICT resources. It is evident from the table that 32% of teacher educators opined that they use learning resources as per need of the topic. 37% of teacher educators say that they use ICT resources in the classroom whereas 35 % say they use non-ICT resources. The non-ICT resources mentioned were charts, pictures, materials collected from local environment, science lab materials, models, globe etc. 15 teacher educators said that they use power point as ICT resource. Only 2 said they use video clippings in the classroom. All the teacher educators of Tikabali DIET said they use learning resources as per need, though did not specified the resources; only one opined that PowerPoints is being used. In addition to this however, more than 80% of teacher educators of Khordha and Baripada claimed that ICT resources were used by them.

Classroom Management

The graph presents the perception of student teachers about classroom management. More than 50% student teachers of the DIETs studied said that they often perceive

favourable classroom management. This was maximum at DIET, Sambalpur with 69%. However, 13% student teachers of DIET Khordha never perceived favourable classroom management in their DIETs.

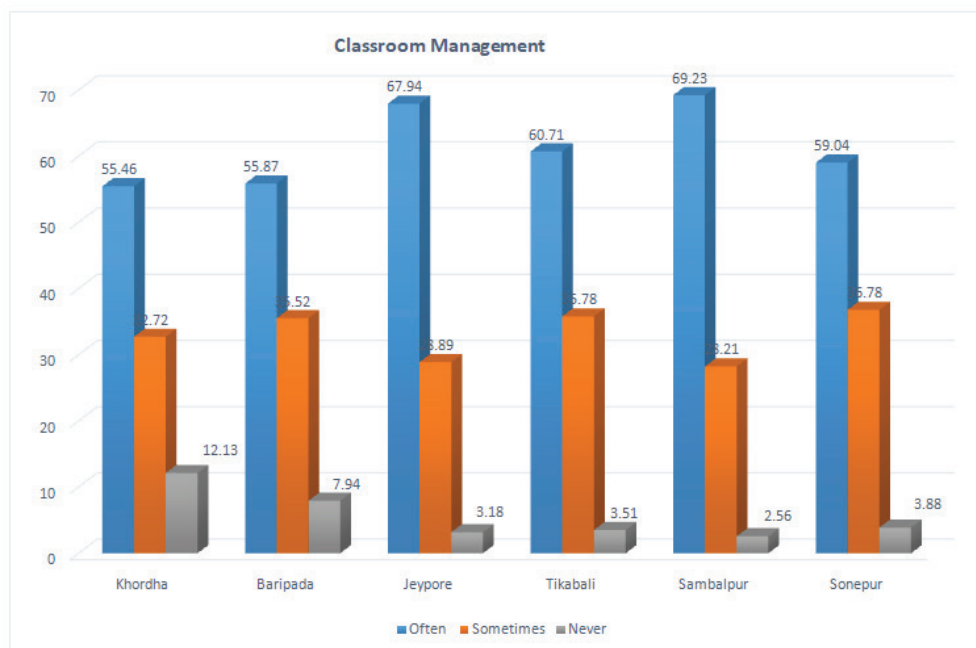


Figure 1 (c): Classroom Management

When the item-wise analysis was done, it was found that more than 70% learners perceive equal opportunities and positive climate in the classroom and expressed that healthy interaction exists between student teachers and teacher educators. Approximately the same percentage expressed that student behaviour and work during group activities are often monitored by teacher educators. 53.38 % student teachers expressed that appropriate classroom management strategies were adopted often. During classroom observation, it was found that except in one of the classes in Tikabali and Sonepur DIETs, democratic practices were followed wherein freedom was provided to student teachers to express freely in the classroom. In none of the classes, differentiation based on gender was observed and in all

the classes, gender sensitive behaviour was ensured. It was also found that student teachers are treated with respect in all the classes observed.

Learner Involvement

This analysis reveals the perception of student teachers of the studied DIETs about learner involvement inside classroom. Except in DIET, Sambalpur and Sonepur, not more than 50% student teachers perceive favourable learner involvement often in their classes. In DIET Sambalpur, 63% student teachers of DIET, Sambalpur perceived favourable learner involvement whereas 10% of the student teachers of DIET, Tikabali never perceived favourable learner involvement in their DIET classrooms.

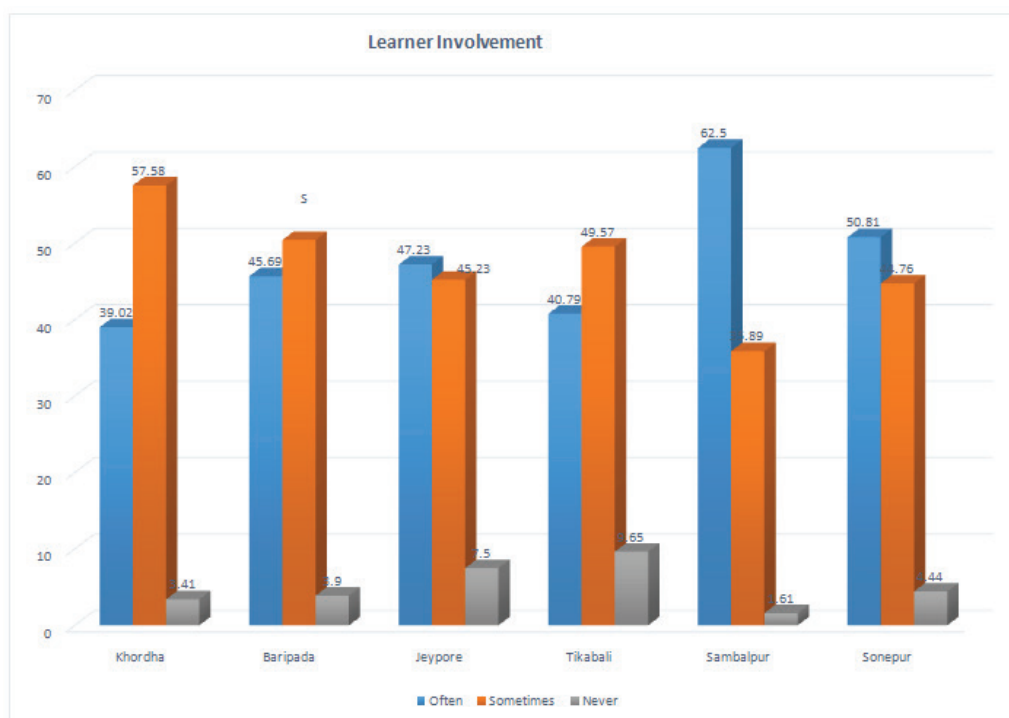


Figure 1(d): Learner Involvement

During classroom observation, it was found that in 65.51% classes, collective answers were provided by students to the questions raised by teacher educators. In all the classes observed in DIET, Baripada, students who volunteered were given opportunities, but in 83.34 % of classes, students were seen giving collective answers. In none of the DIETs, individuals who did not volunteer were being encouraged to answer or participate whereas in 55.17% of classes, individuals who volunteered to respond were given opportunities. In 46% classes student teachers questions were intended to seek more clarification. It is observed that only student teachers of DIET Khordha and DIET Sambalpur asked questions based on their reflections. 71% student teachers of Sambalpur DIET sought more information on the topic under discussion. Except in Tikabali and Sambalpur DIETs, students raised only certain kind of issues relating to the topic.

It was observed that except in Tikabali and Jeypore DIET, teacher educators elicited

student teachers' reflection on various issues related to schooling and teaching-learning process. However the percentage of classes where this opportunity given was very low only 12.06. The data does indicate that student teachers were encouraged to ask questions in the class. In all the observed classes of Sambalpur and Sonepur DIET, teacher educators tried to encourage student teachers to ask questions. Except in Jeypore DIET, it is observed that student teachers were encouraged to ask questions in more than 50% classes.

Assessment

This part of the data indicates the perception of student teachers of DIETs on assessment inside classroom. Less than 50% student teachers of Jeypore and Tikabali said that they often perceived favourable assessment inside classroom whereas 67% student teachers of DIET, Sambalpur expressed that they often perceived favourable assessment process inside classroom.

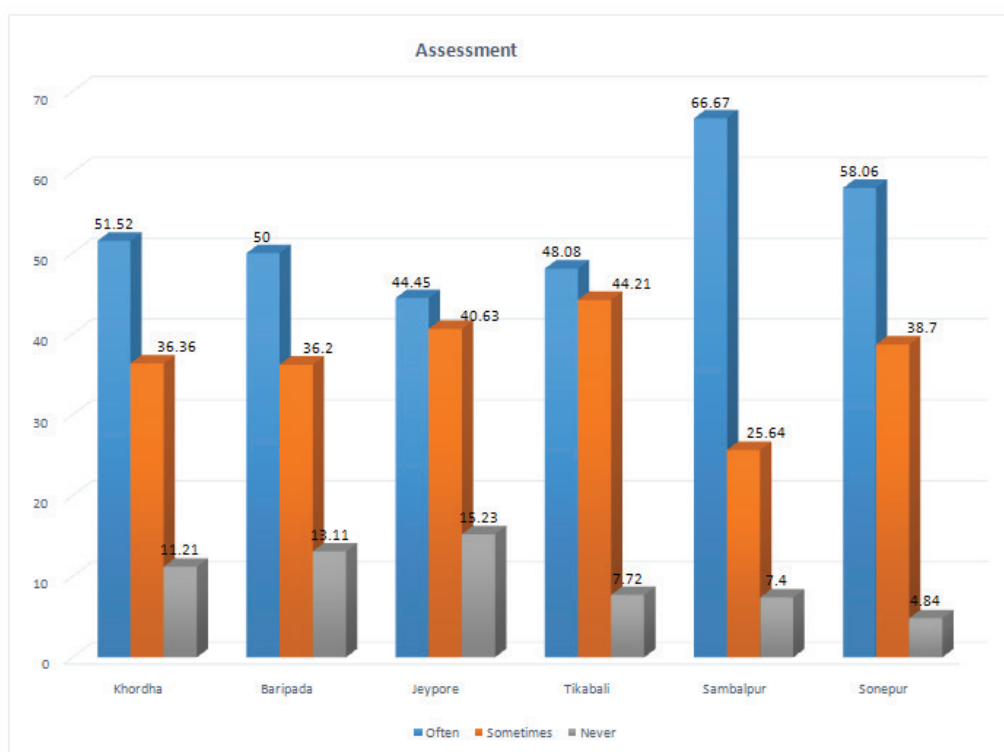


Figure 1 (e): Assessment

It was observed that tests (31.03%) and oral questioning (24.13%) were the two strategies commonly used by teacher educators to assess the progress of student teachers. Assignment and worksheets were not used even in a single observed class of DIET Jeypore, Tikabali and Sambalpur. Though in one class of DIET Sonepur, worksheet was used as an assessment strategy.

Only in 37% classes, it was observed that assessment was done throughout the lesson where as in 63% classes; there were no effort to assess the progress of learning continuously in the classroom

The responses of teacher educators of each DIET were analysed separately to understand the context specific pedagogical practices. The responses of the teacher educators were noted down in the field notes and were coded and categorised. 54% of teacher educators use written test for assessing progress of children where as 41% said that assignment and projects are used as assessment strategies. Only 22% considers

questioning as an assessment strategy. For the item- 'how do you ensure participation among students?' the responses mainly concentrated on 'questioning'; however teacher educators don't perceive questioning as an assessment strategy, they rather see it as a tool in developing a lesson with students' participation. Only 5% said peer evaluation can be considered as an assessment strategy. No innovative assessment strategies such as worksheet, rubric, and portfolio were mentioned by any of the teacher educators. From students' expression, it appears that tests, questioning and assignment are the prominently used assessment strategies, though project and group discussion were also mentioned by student teachers during FGD

Findings

It is found that more than 50% students of DIETs expressed that they often perceive favourable pedagogical practices in their DIETs. It is also found that more than 50%

student teachers of DIETs expressed a favourable pedagogical practices with respect to the dimension -Inside classroom; more than 45% with respect to the dimension-outside the classroom; 60% or more in the case of dimension- institutional practices.

Majority of student teachers expressed that teacher educators often use a variety of methods for transacting the content. A majority of student teachers felt that participatory learning through group work was often encouraged in the class. . Very few (14.58%) student teachers said that ICT tools and techniques are integrated in the teaching – learning process as a common practice. The student teachers’ also indicated that group work and discussion, play way method and lesson plan preparation were conducted in their classes. In spite of this to a larger extent lecture method was followed. While there is a high range of variation in the rating by students’, classroom observation show that the most commonly observed method of transaction is lecture method with a question and answer session or a group discussion. Group activities other than discussion were not very commonly observed in foundation courses but were relatively more frequent in the pedagogic courses. . In contrast to the claim of teacher educators’ that interactive, participatory and collaborative learning approaches including case study, situation analysis, problem solving and demonstration are used as per the need such transactional modalities were rarely in the observed classes. This has to be read with another finding that no significant efforts had been taken to encourage creativity and innovation among student teachers in classrooms. This was cited as a major concern expressed by student teachers during FGD. They wanted a link between theory and practice and classes to be in an interactive mode; ICT integration was another need expressed by student teachers.

1. Majority of student teachers said that a positive climate exists in the classroom and a healthy interaction exists between student teachers and teacher educators.

They are encouraged to and given sufficient time to ask their doubts without fear. When triangulated with classroom observation and FGD, it was seen that a democratic atmosphere is maintained in the classrooms of DIETs and students are free to express their responses. 53 % student teachers expressed that often appropriate classroom management strategies were adopted. However, classroom observation revealed that many a times, student teachers who volunteered to answer were given more opportunities than the rest of the group.

2. Another concern expressed by student teachers with reference to pedagogical practices was Resource material management . While, a majority of student teachers expressed that the learning resources were often used appropriately inside classroom, the Classroom observation revealed that black board and textbooks are the most commonly used resources. (Except in one DIET, no ICT or any other resource was used.)
3. While only some student teachers said that opportunities were provided to reflect on social and pedagogical issues or for deeper discussion and critical reflection were often available in the class, majority opined that student teachers were often encouraged to bring own ideas and experiences. But many times, the questions were aimed at comprehension by students than their reflection on the topic. Most of the students’ questions were also aimed at clarification of the topics rather than being reflective in nature.
4. A majority of student teachers across all DIETs said that teacher educators were well prepared in terms of clear explanation of concepts and doubt clarification. Most teacher educators prefer lesson plans/diary/notes as part of preparation than any other mode.
5. Majority of students agreed that a variety of assessment techniques are followed in the classroom. However, it is observed that written test and oral ques-

tioning are the two strategies that are commonly used by teacher educators to assess the progress of student teachers. Performance based assessment or worksheet based assessment or project based assessment were rarely observed in the classroom. This was also a point made during FGD by the students. Also tests, questioning and assignment the prominently used assessment strategies were mostly theoretical in nature.

6. Poor and poorly maintained infrastructural facility is a concern in DIETs.
7. A positive relationship between and among student teachers and teacher educators of DIETs was also found out. However, it was also found very little collaboration between institutes.

Result and Discussion

Engagement with learners in real life situations along with theoretical inquiry

One of the major principle in NCFTE-2009 is the need to critically engaging student teachers with theory and bringing practices within its perspective.. In DIETs of Odisha, engaging learners with real life context is heavily dependent on internship programme. Student teachers get opportunity to interact with school, teachers and students during practice teaching as part of Internship. Across two years. They teach various subjects during this generating conceptual knowledge based on experience and observation in the process. With mentored guidance they relate theory with their own experience. However, to make it more structured, a detailed post internship programme may help. From classroom observation and student responses it appears that some real life examples are integrated with theory in the classroom but they are not enough and mostly theoretical perspectives are dealt in an isolated way with no link with field reality. Besides this case studies depicting theoretical underpinning were rarely discussed in the classroom.

An exposure programme to schools from varied contexts may also be useful in connecting real life. Absence of such a programme makes student teachers remain less likely to adapt the pedagogical knowledge and address diverse contexts through critical reflection. D.El.Ed. programme has to gear towards building capacities in the student teachers to construct knowledge, to deal with different contexts by providing multiple experiences other than practice-teaching. The D.El.Ed. programme should engage student teachers with children in real context under varied situations and in many ways. It should help them to understand the psychosocial attributes and needs of learners, their special abilities and characteristics and their preferred mode of cognition. Towards this, student teachers can do a case study at school during practice teaching. The case studies can be discussed with a bigger group once students are back in the DIET so that critical reflection on each case may lead to deeper learning.

The theory linked with field experiences would help students to view knowledge to be actively constructed during learning, not something to be memorized. The currently inadequate use of technology to bring the context to classroom also needs to be increased and new ideas explored. The assignments given by teacher educators must also change from being based on theoretical content to include understanding of the field reality.

Pedagogies Appropriate for Adult Learners

Our observation that the commonly used pedagogical strategies in DIETs are lecturing, question-answer sessions and whole group discussion is in agreement with the study on pre-service teacher education programme of almost all the states/UTs by Yadav (2011). In our study we also found that the methods used by educators were planned with less scope for reflection among student teachers and that foundational courses are mostly dealt as 'fixed content' with little

scope for re-examination. The application of ideas of theory to various contexts were not discussed and very little effort was made to hold discussions in small groups to share reflections and consolidate them for collective consideration. While freedom was provided to express views and opinions, this freedom was not channelized productively and the points of discussion revolved around the points given in the text book. Goel and Goel (2012) in their article on teacher education scenario in India mentioned that poor integration of skills, domain pedagogy mismatches, rarity of innovations, inadequate technology infusion are some of the major problems and concerns in teacher education institutes. Therefore effort has to be made to evoke responses from students and to engage them in deeper discussions and reflections. It seems that while the teacher educators felt that they were using innovative, reflective, participative and collaborative methods, the student teachers did not feel so. These also did not show up in observations either. It is therefore important to help teacher educators understand the other modes of transaction with scope for integrating theory with real life and how they can be used in a planned way in the DIETs.

Engaging Student Teachers with Deeper Discussion and Reflections

Majority of questions by teacher educators test understanding of student teachers and higher order thinking questions are almost absent. Even in group discussions not many critical situations are presented for student teachers to reflect and contribute meaningfully. As the study by Chauhan (2015) shows critical reflection in practicum of pre-service teacher education that student teachers come to teacher education program with a set of beliefs and preconceptions about teaching-learning process as well as of learners based on their own experiences as student, through critical dialogues and guided practice student teachers can examine their and others' pedagogical beliefs and transform them. It emerges

therefore, that more opportunities have to be created in D.El.Ed classrooms as well as during internship wherein student teachers are more rigorously engaged and deeper discussion are possible.

Development of Social Sensitivity & Social Consciousness

NFTE 2009 suggests provision for learning spaces to examine students' own position in society and their assumption as part of classroom discourse. While the teacher educators said that activities to develop social sensitivity like mixed group seating in the class room, awareness campaign, street play, celebration of days of significance such as AIDS day and orphanage visit, socio-cultural programmes etc. do take place they did not talk about integrating these with topics in the courses.; The number of activities to develop social sensitivity and social consciousness among student teachers need to be sharply increased.

Comprehensive Assessment

The methods commonly used for assessment are oral questioning in the class, tests and assignments. The evaluation system followed are quantitative in nature. Assessment was basically meant to examine conceptual and pedagogical aspects. Efforts have to be taken to assess attitudes, dispositions, habits and interests of a teacher. Innovative ways of assessment was not explored much in DIETs and field based topics were rarely given for assignment. Most of the times, assignment was based on theoretical perspectives.

Educational Implications of the Study

1. Since, lecture-cum-discussion and question and answer method are some of the prominent methods in transacting D.El.Ed. curriculum, there is an urgent need to orient the teacher educators on process based teacher education programme and its modalities.
2. At the time of the study the curriculum and textbooks had not been updated teacher educators found it difficult to

revisit the process. There was therefore, a need to revise both curriculum and textbooks of D.El.Ed. Curriculum. This process has now been completed in state of Odisha.

3. Teacher educators must make an effort to link theory and practice through field based activities and make field based assignments as well. Reflection is currently not the main focus of the teaching-learning process in D.El.Ed, steps have to be taken to incorporate reflection in all the activities of the programme.
4. Internship programme may be geared towards developing teacher identity among student teachers. Internship has to be revised to include multi placement programmes. It should be redesigned as a monitored activity with scope for pre and post reflection from student teachers
5. The lack of infrastructural facilities such as library, laboratories hinders quality learning process in the DIETs. Adequate infrastructural facilities such as libraries, spacious classrooms and labs need to be provided.
6. Teacher educators need to be oriented on research methodology with specific focus on action research. They will then be able to better guide and monitor action research activities of the students as well

as conduct action research to improve their pedagogic practices

7. Systematic effort from SCERT and principals of DIETs to network and collaborate with each other must be made.
8. Training programmes on the integration of ICT resources in teaching-learning process may be designed for teacher educators.

Conclusion

The research was aimed at exploring pedagogical processes in DIETs of Odisha with specific reference to the recommendations of NCFTE on pre-service teacher education programme. Majority of the student teachers responded positively to the pedagogical practices in the D.El.Ed. programme but pointed out that varied modes of transaction and resources have not been incorporated in the pedagogical processes. Though some of the postulates of NCFTE-2009 are reflected in the overall pedagogical practices, more efforts are required in this direction for making elementary teacher education programme in DIETs of Odisha process based.

Note: The study was conducted in the year 2016-17 before the D.El.Ed. curriculum for the D.El.Ed. programme in Odisha was revised in 2018.

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