



# **Perceptions of B.Ed Faculty Members on the Course 'Understanding the Disciplines and Academic Subjects' Offered in Tamil Nadu Teachers Education University**

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## **Authors' contributions**

*This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

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## **ABSTRACT**

The main goal of teacher education programs, like the Bachelor of Education (B.Ed.), is to develop a deep understanding of different disciplines and academic subjects. To become effective teachers, a broad knowledge of various academic disciplines and subjects is crucial for students pursuing a Bachelor of Education (B.Ed) degree. The course 'Understanding the Disciplines and Academic Subjects' is primarily offered in the B.Ed program for this purpose. This study examines faculty members' perceptions of a specific course and their challenges when teaching sub-topics. Research Question: What is the perception of B.Ed faculty members at Tamil Nadu Teachers Education University regarding the course 'Understanding Disciplines and School Subjects' in the B.Ed programme? What are the perceptions of B.Ed faculty members at Tamil Nadu Teachers Education University regarding the sub-topics of the course 'Understanding Disciplines and School

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Subjects' in the B.Ed programme? Research objectives: This study aims to investigate the perceptions of B.Ed faculty members regarding the course "Understanding Disciplines and School Subjects" in the B.Ed program at Tamil Nadu Teachers Education University. The study population consisted of Tamil Nadu Teachers Education University faculty members who taught in the Cuddalore district of Tamil Nadu in 2023. In the Cuddalore district of Tamilnadu, 30 colleges offer B.Ed programmes. These colleges employ approximately 420 faculty members. Study Sample: The researchers chose 42 faculty members who were teaching B.Ed. at Tamil Nadu Teachers Education University in the Cuddalore district of Tamil Nadu in 2023. The study employed cluster sampling as the sampling technique. A random sample of five out of thirty colleges was chosen, and all faculty members teaching in these colleges were included in the investigation. Hypothesis: The perceptions of B.Ed. faculty members regarding the importance of learning the subject 'Understanding Disciplines and School Subjects' exhibit a slight difference. The study's findings will assist educators in developing pedagogical strategies and adapting the teaching-learning process to enhance course comprehension.

*Keywords: Disciplines and school subjects; perspectives; professional development; comprehension.*

## 1. INTRODUCTION

The B.Ed program has a duration of two years. Students take a variety of courses over two years. One example of a course is "Understanding the Disciplines and Academic Subjects." This course is crucial as it facilitates a comprehensive understanding of the nature of various disciplines. This study examines faculty members' perceptions of the course and their challenges when teaching different sub-topics.

### 1.1 The Course 'Understanding the Disciplines and Academic Subjects' is Fundamental in Teacher Education Programs

To become effective teachers, a thorough grasp of diverse disciplines and academic subjects is crucial for students pursuing a Bachelor of Education (B.Ed) degree. Faculty members in the Bachelor of Education (B.Ed) program often have diverse perspectives influenced by their experiences, educational backgrounds, and teaching practices. Selinger, Collins, & Pratt [1] According to a survey conducted by the Carnegie Foundation for the Advancement of Teaching in 1991-1992, faculty members demonstrated a greater affinity and loyalty towards their discipline than their department or institution. Bachelor of Education (B.Ed) faculty members may hold various perceptions and views regarding teaching disciplines and school subjects. Many B.Ed faculty members prioritise the integration of a multidisciplinary approach in teaching. Designing integrative learning activities facilitates interdisciplinary learning and fosters students' ability to generate innovative solutions and perspectives on complex problems [2]. The authors argue that incorporating the

interconnectedness of different academic subjects can improve student engagement and the applicability of their learning.

Pedagogy plays a vital role in enabling teachers to gain a comprehensive understanding of effective strategies for managing the classroom [3]. Pedagogy plays a crucial role in the instruction of academic subjects, as emphasized by faculty members in the Bachelor of Education (B.Ed) field. They highlight the significance of implementing effective pedagogical strategies in their teaching methods. They may prioritise using innovative teaching methods to enhance the accessibility of complex concepts for students [4,5]. B.Ed faculty members argue that educators should adapt their instructional approaches to align with the specific requirements of the discipline or subject being taught. Various subject-specific techniques can facilitate effective teaching (Prodigy, 2023). Certain faculty members in the field of B.Ed advocate for the integration of real-life applications in order to enhance the curriculum.

## 2. RESEARCH SIGNIFICANCE

Bachelor of Education programs provide aspiring educators with the essential skills and knowledge for their preparation and development. Individuals' perspectives on teaching various courses can aid in developing teacher training programs. The point above guarantees that educators receive thorough training, covering the essential knowledge and pedagogical skills needed to teach different courses effectively.

The involvement of B.Ed faculty members is significant in shaping curriculum design for pre-

service and in-service education. Gaining insights from faculty members on the course 'Understanding the Disciplines and Academic Subjects' can offer valuable guidance to curriculum developers in creating more relevant and effective instructional materials.

Teaching strategies. The viewpoints of B.Ed faculty members provide invaluable insights into the most successful teaching practices for the subject titled 'Understanding the Disciplines and Academic Subjects.' This research aims to discover new student-centred teaching methodologies that can enhance student learning outcomes. It is crucial to examine the viewpoints of B.Ed faculty members on their instruction of the course 'Understanding the Disciplines and Academic Subjects'.

### **3. REVIEW OF RELATED LITERATURE**

The Investigators reviewed five studies related to the following topics

- i. Research related to different subjects in B.Ed.
- ii. Research related to 'understanding disciplines and school subjects' in B.Ed.

#### **3.1 Research Related to Different Subjects in B.Ed.**

Fatima, Naaz [6] B.Ed. geography achievement and enrichment are assessed through interactive learning. The goal was to compare the average content test scores of B.Ed. trainees in the experimental and control groups and between men and women. The study used two-group post-tests. The research uses purposeful sampling to pick participants or cases depending on research goals; out of 130 B.Ed. of geography majors, 70 were tested. The experimental group received a knowledge-enhancing intervention, while the control group received traditional training. This study found that interactive learning improved B.Ed. students' topic understanding and academic performance.

#### **3.2 Research Related to 'Understanding DISCIPLINES and School Subjects' Offered in B.Ed.**

Matthiessen [7] studied the works of Giovanni Parodi, specifically his Registerial profiles of school topics and university specialities in cartography. Enrollments at educational institutions, including schools and universities,

are accounted for. The university discipline registerial profiles of Giovanni Parodi complement the systematic functional school topic profiles. These significant contributions have paved the way for a comprehensive approach, which can be further explored in future studies to address any gaps that may arise as personal registerial repertoires expand. The researchers compared register and 'genre' approaches to enhance conceptual clarity regarding situational language functional variation.

In their study, Padmini and Ramani [8] examined the implementation of e-learning pathways in the teacher education course 'Understanding Disciplines and School Subjects' in Cuddalore, Tamil Nadu, India. Conceptual frameworks aid in organising studies and facilitate the comprehension of research problems. Technology is driving the emergence of novel teaching and learning methods. The advent of online platforms, digital papers, and technological tools has revolutionised the field of education. This study addresses a gap in the existing research by investigating the perceptions of B.Ed students regarding the use of e-learning technology in the context of 'Understanding Disciplines and School Subjects'. The user's text should be rewritten to be concise and academic without adding any information. The study involved a sample of 540 B.Ed. students from Tamil Nadu Teachers Education University in Cuddalore in the year 2023. The study employed purposive sampling. Surveys were employed to gather qualitative data for this study. This study employs content analysis to analyse open-ended questions. Data collection is the process of gathering information or data from various sources. This study employed an open-ended questionnaire. The students' responses to e-learning were both positive and negative. Eight recommendations were made for generating e-learning resources. According to the report, e-learning tools for Indian languages aim to foster comprehension of disciplines and school subjects. E-learning producers require both content and technical skills.

Padmini & Ramani [9] conducted a study on the perceptions of B.Ed students regarding the course 'Understanding the Disciplines and Academic Subjects' in teacher education programs. Teacher education programs, such as the Bachelor of Education (B.Ed.), seek to enhance understanding and knowledge in various academic disciplines. The B.Ed

programme at Tamil Nadu Teachers Education University necessitates a comprehensive understanding of various subject areas. What are the perceptions of B.Ed students regarding the subtopics related to 'Understanding Disciplines and School Subjects' at Tamil Nadu Teachers Education University? Objective: This study aims to investigate the perspectives of B.Ed students regarding the course titled "Understanding Disciplines and School Subjects" at Tamil Nadu Teachers Education University. The study population consisted of B.Ed. students from Tamil Nadu Teachers Education University in Cuddalore in 2023. Approximately 3,000 students are enrolled in Bachelor of Education (B.Ed) programs across 30 Cuddalore Tamil Nadu colleges. Sample Description: A study was conducted in 2023 involving a randomly selected sample of 523 students pursuing a B.Ed. degree at Tamil Nadu Teachers Education University in Cuddalore. This investigation employed cluster sampling. A random sample of five out of thirty colleges was selected for investigation. The research hypothesis under investigation is: The null hypothesis posits that there is no statistically significant difference in the views of B.Ed. students regarding 'Understanding Disciplines and School Subjects'. The study's findings will assist educators in enhancing pedagogical methods and modifying the teaching-learning process to enhance the comprehensibility of education, particularly for B.Ed students aspiring to become teachers. The B.Ed program includes a course titled "Understanding the Disciplines and Academic Subjects." This study assesses students' perceptions of their courses and identifies any difficulties they may have in comprehending specific subtopics. What are the specific inquiries being addressed in the research? What is the perspective of B.Ed students regarding the concept of 'Understanding'?

Padmini & Ramani [10] New teaching methods are emerging from technology. Online platforms, digital papers, and other resources changed education. This study covers a literature gap on B.Ed faculty views on e-learning tools for the two-credit 'Understanding Disciplines and School Subjects' course. It explores B.Ed faculty attitudes on e-learning tools in 'Understanding Disciplines and School Subjects.' Feedback on education tech is needed. The study has various effects. Technology dramatically impacts education. The article emphasises how online platforms and digital resources affect education delivery and reception. Research Gap: A

literature gap is filled by this investigation. Only some studies have examined integrating e-learning within the mandatory B.Ed degree. Academics B.Ed researchers who train teachers comment on this study. Perspectives affect prospective teachers' education adaption. A 2023 study sampled 42 Tamil Nadu Teachers Education University Cuddalore B.Ed. lecturers. The study was sampled carefully. Surveys were employed in this qualitative investigation. WE examined open-ended questions using content analysis. Faculty were enthusiastic and unfavourable about e-learning. Four e-learning content improvements were suggested.

Padmini & Ramani [11] Conceptual frameworks define research questions and structures. Tech-based learning is altering digital education. E-learning has transformed education via online platforms, digital materials, and technologies. Ask B. Ed students about professional development e-learning supplies. E-learning and digital instruction have grown. The study evaluates B.Ed students' e-learning attitudes and use. Higher education technology instruction is vital. Teaching, 'Understanding Disciplines and School Subjects,' E-learning resources may suit B.Ed courses, study finds. Researchers desire B.Ed students' e-learning content, accessibility, and usability feedback. All Cuddalore B.Ed. Tamil Nadu Teachers Education University students were studied in 2023. B.Ed. Tamil Nadu Teachers Education University students clustered. Study data was acquired by questionnaire. E-learning variety was recommended by B.Ed students who were comfortable utilizing technology and preferred 'Video lectures' Students use multimedia, interactive modules, and real-world imagery. Higher education needs student e-learning product feedback. Student-specific modifications are instant with this input.

Thompson [12] edited a book titled "Subject Disciplines and the Construction of Teachers' Identities." This chapter examines the impact of disciplinary identification on teachers' identities. The chapter begins by asserting that teachers should instruct their well-researched subjects morally and systematically. Teachers should possess a comprehensive understanding of subject principles and evidence, irrespective of their area of specialization. This chapter argues that instructors' sociocultural identities are influenced by their conceptual understanding of teaching a specific topic in particular settings. The chapter explores beginning English

teachers' challenges concerning subject disciplines, school subjects, and teacher identities.

Hudson et al. [13] conducted a study titled "Trajectories of powerful knowledge and epistemic quality: assessing transitions across disciplines in school subjects." A research paradigm known as comparative topic didactics is employed to evaluate changes in academic disciplines across different school subjects. The theoretical framework characterizes knowledge transfer from the classroom to society as encompassing concepts such as 'powerful knowledge', 'transformation', and 'epistemic quality'. This approach examines empirical studies on the knowledge and quality of the KOSS network in various academic disciplines and teacher education. The study examines the transitions of disciplinary knowledge across different school subjects, defining powerful knowledge as the specialized creation and transfer of information. Empirical study data from the frontier is analyzed by categorizing it into broad subject groups. The Biglan categorization framework compares higher education disciplines with their corresponding counterparts. In conclusion, our study focuses on curriculum planning, teacher education policies, and comprehending subject-specific educational materials.

### **3.3 Identifying the Research Gap and Rationale of the Study**

Hudson et al. [13] conducted a study titled "Trajectories of powerful knowledge and epistemic quality: assessing transitions across disciplines in school subjects." A research paradigm known as comparative topic didactics is employed to evaluate changes in academic disciplines across different school subjects. The theoretical framework characterizes knowledge transfer from the classroom to society as encompassing concepts such as 'powerful knowledge', 'transformation', and 'epistemic quality'. This approach examines empirical studies on the knowledge and quality of the KOSS network in various academic disciplines and teacher education. The study examines the transitions of disciplinary knowledge across different school subjects, defining powerful knowledge as the specialized creation and transfer of information. Empirical study data from the frontier is analyzed by categorizing it into broad subject groups. By reading and analyzing a variety of published publications, the

researchers completed a literature study on the subject of 'Understanding Disciplines and School Subjects', Matthiessen [7], Thompson [12], Hudson, Gericke, Scheller, and Political [11] in order to gain insights into the distinct challenges and demands that are associated with these disciplines and subjects. This review was done to gain insights into the distinct challenges and demands associated with these disciplines and subjects. The Bachelor of Education program requires students to take a course titled "Understanding Disciplines and School Subjects." It is crucial to highlight that the course "Understanding Disciplines and School Subjects" and the attitudes of B.Ed faculty members about this course are separate from these studies, even though various studies are carried out at the B.Ed level. As a result, it is of the utmost importance to explore B.Ed faculty members viewpoints regarding the subject matter of "Understanding Disciplines and School Subjects."

## **4. RESEARCH PROBLEM AND OBJECTIVES**

### **4.1 Research Problem**

Perceptions of B.Ed Faculty Members on the course of 'Understanding the Disciplines and Academic Subjects' offered in Tamil Nadu Teachers Education University

### **4.2 Research Questions**

- What is the B.Ed faculty members' perception of the course 'Understanding Disciplines and School Subjects' offered in the B.Ed programme at Tamil Nadu Teachers Education University?
- What is the perception of B.Ed faculty members regarding the sub-topics of the course 'Understanding Disciplines and School Subjects' offered in the B.Ed programme at Tamil Nadu Teachers Education University?

### **4.3 Research Objectives**

- To understand B.Ed faculty members perception of the course 'Understanding Disciplines and School Subjects' offered in the B.Ed programme at Tamil Nadu Teachers Education University.
- To understand B.Ed faculty members perception of the sub-topics of the course 'Understanding Disciplines and School Subjects' offered in the B.Ed programme at

Tamil Nadu Teachers Education University.

## 5. OPERATIONALIZATION OF TERMS

**Understanding Disciplines and School Subjects:** Curriculum and Pedagogic Studies offered in B.Ed. degree Programme in Tamil Nadu Teachers Education University.

**Perceptions:** Perception means subjective views, thoughts, and beliefs of B.Ed faculty members regarding the course 'Understanding Disciplines and School Subjects' offered at the Tamil Nadu Teachers Education University.

**Experience of teaching the course:** Experience of teaching the course 'Understanding Disciplines and School Subjects' is measured in the five-point scale Very Difficult, Difficult, Neither Difficulty nor Easy, Easy and Very Easy to teach.

## 6. METHODOLOGY

### 6.1 Population of the Study

All B.Ed. faculty members of Tamil Nadu Teachers Education University studying in the

Cuddalore district of Tamilnadu during the year 2023 constituted the study population. Thirty colleges are offering B.Ed programmes in the Cuddalore district of Tamilnadu—about four hundred and twenty faculty members are teaching in these colleges.

### 6.2 Sample of the Study

The investigators selected forty-two B.Ed. faculty members of Tamil Nadu Teachers Education University teaching in the Cuddalore district of Tamilnadu during 2023 were selected randomly as the study sample.

### 6.3 Sampling Technique

The selection of the sample was carried out using a cluster sampling technique. There are thirty educational institutions; however, only five of those colleges were selected through a process that involved a lottery. The majority of the conglomeration was made up of educational establishments. In the education departments of these five universities, 42 teaching staff members were employed across the institution's staff.

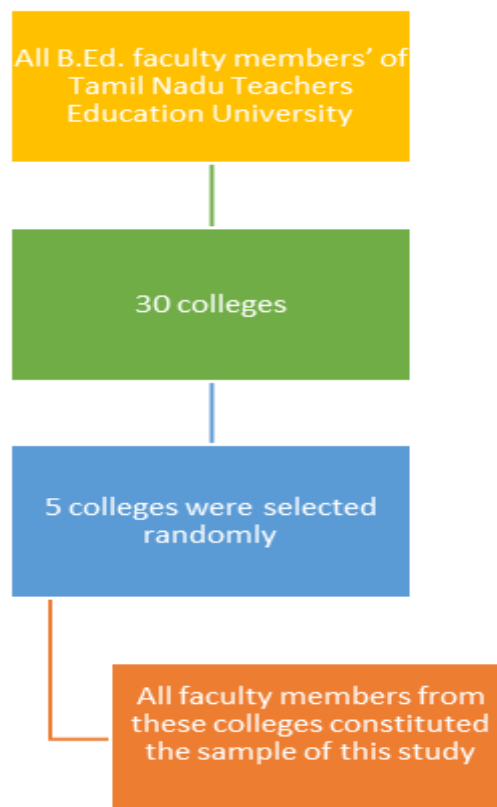


Fig. 1. Selection of Sample

### 6.4 Hypothesis of the Study

Null Hypothesis  $H_{10}$  : There is no significant difference in the perceptions of B.Ed. faculty members regarding the importance of teaching the course 'Understanding Disciplines and School Subjects' offered at Tamil Nadu Teachers Education University'.

Null Hypothesis  $H_{20}$  : There is no significant difference in the perceptions of B.Ed. faculty members regarding the experience of teaching the course 'Understanding Disciplines and School Subjects' offered at Tamil Nadu Teachers Education University.

### 6.5 Research Approach

The investigators adopted a quantitative study.

### 6.6 Research Design

The researchers employed a quantitative and descriptive survey methodology for data collection.

### 6.7 Tools for Data Collection

The structured questionnaire was used to collect data for this study.

### 6.8 Procedure for Data Collection

Investigators created a 'Understanding Disciplines and School Subjects' questionnaire. Validity and reliability were examined on the questionnaire. The questionnaire was given to five panel experts for calculating the content validity. The calculated CVI (content validity

index of entire questions) was 0.991 by comparing it with critical value 0.99 it was concluded that CVI was ideal. Test retest method was used for calculating reliability. The calculated Karl Pearson correlation coefficient was 0.754 which is considered satisfactory. Pilot study was conducted the questionnaire was modified after a pilot trial. Data was collected using the modified questionnaire. The survey was administered using Google Forms.

## 7. RESULTS

The collected data was analysed quantitatively using percentages and chi-square.

### 7.1 Section 1: Demographic Information

33.3% of faculty members were from CK College of Education. 21.5% of faculty members were from New Millennium College of Education. 23.8% of faculty members were from Bhavani College of Education. 11.9% of faculty members were from Arcot Lutheran Church College of Education. 9.5% of faculty members were from Omm Muruga College of Education.

7.14% of faculty members educational qualification was M.A., M.Ed., M.phil.P.hD. 9.52% of faculty members educational qualification was M.A.,M.Ed.,M.Phil. 16.67% of faculty members educational qualification was M.A.,M.Phil.,B.Ed. 23.81% of faculty members educational qualification was M.Sc.,M.Ed. 23.81% of faculty members educational qualification was M.A, M.Ed. 19.05% of faculty members educational qualification was M.Sc., M.Ed., M.Phil.

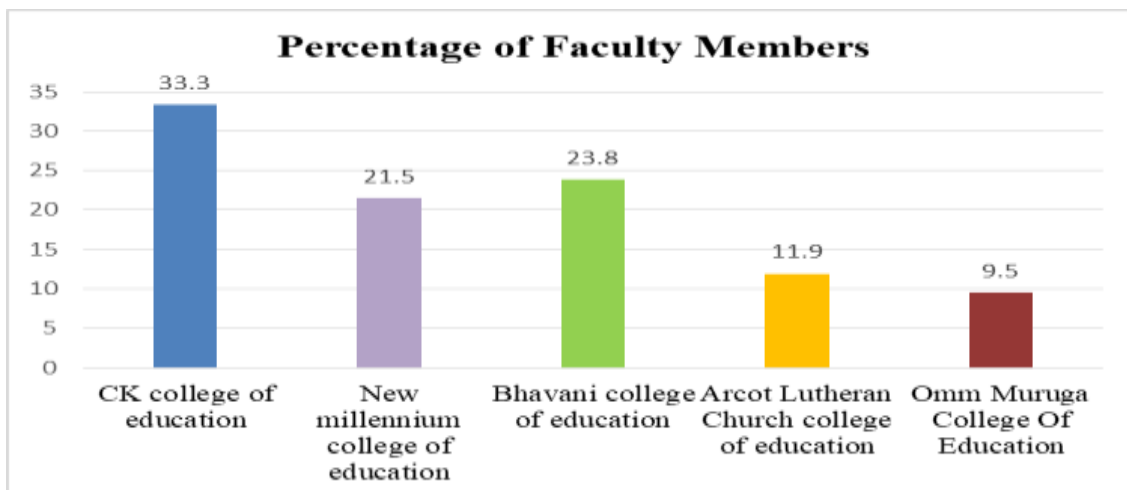


Fig. 2. Percentage of Faculty Members from different colleges

11.1% of faculty members had ten years of experience teaching B.Ed. programme. 11.1% of faculty members had two years of experience teaching B.Ed. programme. 11.1% of faculty members had three years of experience teaching B.Ed. programme. 22.2% of faculty members had five years of experience teaching B.Ed. programme. 11.1% of faculty

members had five years of experience teaching B.Ed. programme. 11.1% of faculty members had six years of experience teaching B.Ed. programme. 11.1% of faculty members had eight years of experience teaching B.Ed. programme. 11.1% of faculty members had nine years of experience teaching B.Ed. programme.

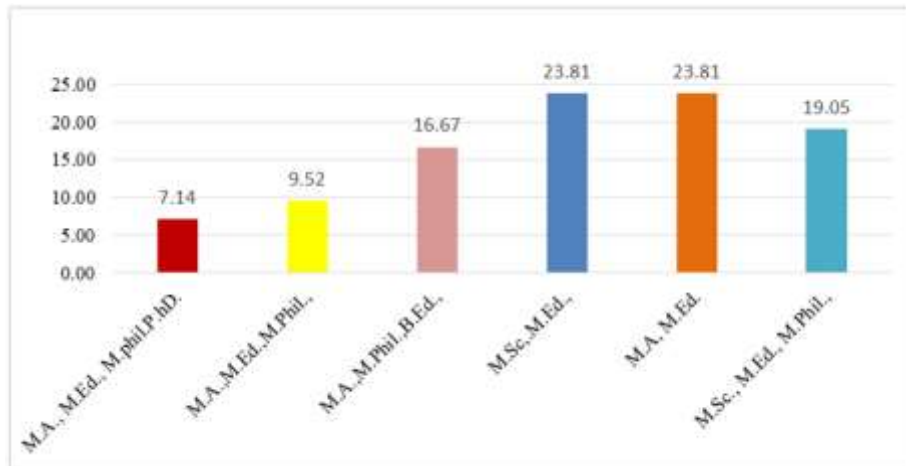


Fig. 3. Qualification of faculty members

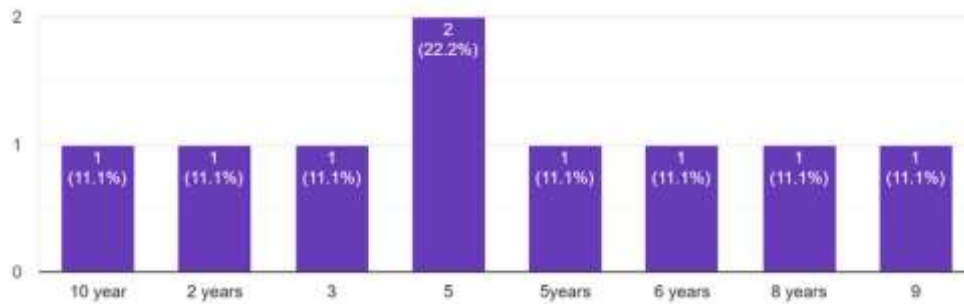


Fig. 4. Faculty Member Experience

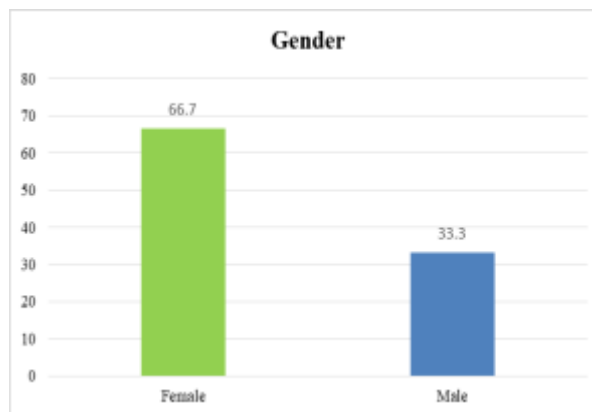


Fig. 5. Gender of Faculty Members

Data Analysis for the study's objective: To understand B.Ed faculty members' perception of the course 'Understanding Disciplines and School Subjects' offered in the B.Ed programme at Tamil Nadu Teachers Education University



66.7% of faculty members were female and 33.3% of faculty members were male.

### 7.2 Section 2: Questions Related to the Course 'Understanding Disciplines and School Subjects'

**Question 1:** B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course.

55.6% of the faculty members strongly agreed with the statement, 'B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course.'

33.3% of the faculty members agreed with the statement, 'B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course'.

11.1% of the faculty members neither agreed nor disagreed with the statement, 'B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course'.

0% of the faculty members disagreed with the statement, 'B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course'.

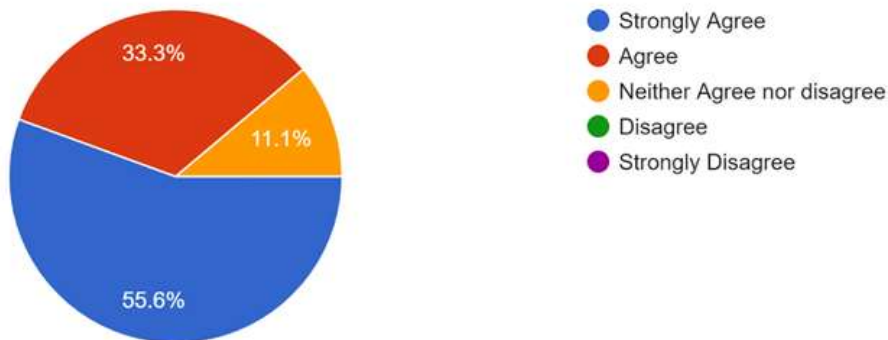
0% of the faculty members strongly disagreed with the statement, 'B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course'.

$\chi^2(4, N=42) = 47.286, p = 0.0001$ . The two-tailed P value is less than the 0.0001 cutoff. The difference can be regarded as exceptionally statistically significant by traditional standards. The alternative hypothesis is accepted, and the null hypothesis is rejected. The opinions of faculty members teaching B.Ed. varies significantly. The maximum number for the highly agreeing criterion is 23. Therefore, most faculty members wholeheartedly concurred with the assertion that 'Understanding Disciplines and School Subjects' as a course is necessary for B.Ed students to grasp well.

**Table 1. Chi-square value to the question B.Ed students must have a solid knowledge of 'Understanding Disciplines and School Subjects' as a course'**

Row	Category	Observed	Expected
1	Strongly Agree	23	8.4
2	Agree	14	8.4
3	Neither agree	5	8.4
4	disagree	0	8.4
5	Strongly disagree	0	8.4

$H_{10}$ : There is no significant difference in the perceptions of B.Ed. faculty members regarding the importance of teaching the course 'Understanding Disciplines and School Subjects' offered in Tamil Nadu Teachers Education University



**Fig. 6. Question 1**

Data Analysis for the study's objective: To understand B.Ed faculty members perception of teaching the sub-topics of the course 'Understanding Disciplines and School Subjects' offered in the B.Ed programme at Tamil Nadu Teachers Education University

**Table 2. Percentage of answers to the question, 'Which sub-unit of the subject 'Understanding Disciplines and School Subjects' do you find most challenging to teach?'**

Topic	Very Difficult	Difficult	Neither Difficult nor Easy	Easy	Very Easy
'Introduction to Disciplines and School Subjects'	11.11%	33.33%	11.11%	33.33%	11.11%
'Disciplines and Subjects in Sociocultural Perspectives	11.11%	22.22%	22.22%	11.11%	33.33%
'Classification and Teaching Across Disciplines	22.22%	0%	44.44%	11.11%	22.22%
'Selection of Content for School Education	0%	33.33%	22.22%	33.33%	11.11%
'life-oriented curriculum'	22.22%	11.11%	22.22%	22.22%	22.22%
'Approaches to Curriculum Designing'	0%	44.44%	11.11%	22.22%	22.22%

Table 2 shows that the sub-units 'Classification and Teaching Across Disciplines and 'Approaches to Curriculum Designing' have the maximum percentage (44.44%) of faculty members who replied that it is 'Neither Difficult nor Easy ' and 'Difficult ' respectively to teach

**Table 3. Number of faculty members answers to the question 'Which sub-unit of the subject 'Understanding Disciplines and School Subjects' do you find most challenging to teach?'**

Topic	Very Difficult	Difficult	Neither Difficult nor Easy	Easy	Very Easy
1. 'Introduction to Disciplines and School Subjects'	5	14	5	14	4
2. 'Disciplines and Subjects in Sociocultural Perspectives	5	9	9	5	14
3. 'Classification and Teaching Across Disciplines	9	0	19	5	9
4. 'Selection of Content for School Education'	0	14	9	14	5
5. 'life-oriented curriculum'	9	5	9	9	10
6. 'Approaches to Curriculum Designing'	0	19	5	9	9
Total	28	61	56	56	51

**Question 2:** Which sub-unit of the subject 'Understanding Disciplines and School Subjects' do you find most challenging to teach?

Table 2 represents the percentage of answers to the question 'Which sub-unit of the subject 'Understanding Disciplines and School Subjects' do you find most challenging to teach?'

Table 3 represents the number of faculty members answers to the question 'Which sub-unit of the subject 'Understanding Disciplines and School Subjects' do you find most challenging to teach?'

$\chi^2(4, N=42) = 47.286, p = 0.0001$ . The two-tailed P value is less than the 0.0001 cutoff. The difference can be regarded as exceptionally

statistically significant by traditional standards. The alternative hypothesis is accepted, and the null hypothesis is rejected. The opinions of faculty members teaching B.Ed. varies significantly. The maximum number for the highly agreeing criterion is 23. Therefore, most faculty members wholeheartedly concurred with the assertion that 'Understanding Disciplines and School Subjects' as a course is necessary for B.Ed students to grasp well.

i The chi-square calculation for faculty members answers to the category 'very difficult' to the subunits is given Table 4.

$\chi^2(5, N=28) = 17.429, p = 0.0038$ . The calculated P value is below the threshold of 0.0038. The observed difference meets conventional criteria

for statistical significance. Thus, the null hypothesis is rejected in support of the alternative hypothesis. Significant variations exist among B.Ed. faculty members' perceptions of teaching the course 'Understanding Disciplines and School Subjects'. The sub-units 'Classification and Teaching Across Disciplines' and 'Life-oriented Curriculum' each have a maximum of 9. Therefore, faculty members find the instruction of the sub-units 'Classification and Teaching across Disciplines' and the 'life-oriented curriculum' in the course 'Understanding Disciplines and School Subjects' difficult.

ii The chi-square calculation for faculty members answers to the category 'difficult' to the subunits is given Table 5.

$\chi^2(5, N=61) = 23.492, p = 0.0001$ . The two-tailed P value obtained is less than 0.0001. Thus, the null hypothesis is rejected in support of the alternative hypothesis. Significant variations exist among B.Ed. faculty members' perceptions of teaching the course 'Understanding Disciplines and School Subjects'. The observed difference is statistically significant according to conventional criteria. The sub-unit 'Approaches to Curriculum Designing' has a maximum limit of 19. Therefore, teaching the sub-unit 'Approaches to Curriculum Designing' within the course 'Understanding Disciplines and School Subjects' posed a challenge for many faculty members.

iii The chi-square calculation for faculty members answers to the category 'Neither Difficulty nor Easy' to the subunits is given Table 6.

$\chi^2(5, N=56) = 14.071, p = 0.0152$ . The calculated two-tailed P value is less than 0.0096. Based on conventional criteria, this difference is statistically significant. Thus, the null hypothesis is rejected in support of the alternative hypothesis. There are notable variations in the perspectives of B.Ed. faculty members. The sub-unit 'Classification and Teaching Across Disciplines' has a maximum of 19. Hence, many faculty members perceived the sub-unit 'Classification and Teaching Across Disciplines' as moderately challenging to teach.

iv The chi-square calculation for faculty members answers to the category 'Easy' to the subunits is given Table 7.

$\chi^2(5, N=56) = 8.714, p = 0.1210$ . The calculated two-tailed P value exceeds the threshold of 0.1210. Based on conventional criteria, the observed difference lacks statistical significance. Thus, the null hypothesis is not rejected. There is no significant variation in the perceptions of B.Ed. faculty members.

v The chi-square calculation for faculty members answers to the category 'Very Easy' to the subunits is given Table 8.

**Table 4. Chi-square calculation for faculty members answers to the category 'very difficult'**

Topic	Observed	Expected #	Expected
1	5	4.66667	16.667%
2	5	4.66667	16.667%
3	9	4.66667	16.667%
4	0	4.66667	16.667%
5	9	4.66667	16.667%
6	0	4.66667	16.667%

*H<sub>20</sub>: There is no significant difference in the perceptions of B.Ed. faculty members regarding the experience of teaching the course 'Understanding Disciplines and School Subjects' offered in Tamil Nadu Teachers Education University'*

**Table 5. Chi square calculation for students' answers to the category 'difficult'**

Topic	Observed	Expected	Expected
1	14	10.1667	16.667%
2	9	10.1667	16.667%
3	0	10.1667	16.667%
4	14	10.1667	16.667%
5	5	10.1667	16.667%
6	19	10.1667	16.667%

*H<sub>20</sub>: There is no significant difference in the perceptions of B.Ed. faculty members regarding the experience of teaching the course 'Understanding Disciplines and School Subjects' offered in Tamil Nadu Teachers Education University'*

**Table 6. Chi square calculation for students' answers to the category ' Neither Difficulty nor Easy'**

Topic	Observed	Expected	Expected
1	5	9.33333	16.667%
2	9	9.33333	16.667%
3	19	9.33333	16.667%
		9.33333	16.667%
4	9		
5	9	9.33333	16.667%
6	5	9.33333	16.667%

*H<sub>20</sub>: There is no significant difference in the perceptions of B.Ed. faculty members regarding the experience of teaching the course 'Understanding Disciplines and School Subjects' offered in Tamil Nadu Teachers Education University*

**Table 7. Chi square calculation for students' answers to the category 'Easy'**

Topic	Observed	Expected #	Expected
1	14	9.33333	16.667%
2	5	9.33333	16.667%
3	5	9.33333	16.667%
4	14	9.33333	16.667%
5	9	9.33333	16.667%
6	9	9.33333	16.667%

*H<sub>20</sub>: There is no significant difference in the perceptions of B.Ed. faculty members regarding the experience of teaching the course 'Understanding Disciplines and School Subjects' offered in Tamil Nadu Teachers Education University*

**Table 8. Chi square calculation for students' answers to the category 'Very Easy'**

Topic	Observed	Expected #	Expected
1	4	8.5	16.667%
2	14	8.5	16.667%
3	9	8.5	16.667%
4	5	8.5	16.667%
5	10	8.5	16.667%
6	9	8.5	16.667%

*H<sub>20</sub>: There is no significant difference in the perceptions of B.Ed. faculty members regarding the teaching experience of the course 'Understanding Disciplines and School Subjects' offered in Tamil Nadu Teachers Education University*

Which sub-unit of the subject ' Understanding Disciplines and School Subjects ' do you find most challenging to teach?



**Fig. 7. Question 2**

$\chi^2(5, N=51)=7.706$ ,  $p = 0.1732$ . The calculated two-tailed P value exceeds the threshold of 0.1732. Based on conventional criteria, the observed difference lacks statistical significance. Thus, the null hypothesis is not rejected. There is no significant variation in the perceptions among B.Ed. faculty members.

### **7.3 Findings of Study**

Most faculty members possess qualifications such as M.Sc., M.Ed., M.A., and M.Ed., as indicated by demographic data. The faculty members' experience spans from 2 to 10 years. The faculty members had a maximum of 5 years of experience. The selected colleges had a higher proportion of female faculty members. Most faculty members strongly agreed that the course 'Understanding Disciplines and School Subjects' is essential for B.Ed students to develop a comprehensive understanding. The sub-units 'Classification and Teaching Across Disciplines' and 'Approaches to Curriculum Designing' have the highest percentage of faculty members who indicated that teaching in these areas is 'Neither Difficult nor Easy'. In the 'very difficult' category, faculty members expressed difficulty teaching the sub-units 'Classification and Teaching across Disciplines' and the 'life-oriented curriculum' in the course 'Understanding Disciplines and School Subjects'. The sub-unit 'Approaches to Curriculum Designing' in the course 'Understanding Disciplines and School Subjects' presented a challenge for faculty members in the 'difficult' teaching category. In the category of 'Neither Difficulty nor Easy,' faculty members generally found the sub-unit 'Classification and Teaching Across Disciplines' to be moderately challenging to teach. There is no notable variation in the perceptions of B.Ed. faculty members within the 'Easy' category. There is minimal variation in the perceptions of B.Ed. faculty members in the 'very Easy' category.

## **8. DISCUSSION AND CONCLUSION**

A substantial number of faculty members had favourable views of the course. The participants found the intervention relevant and beneficial for improving their comprehension of diverse academic subjects. Several faculty members recognized that the course positively influenced their teaching practices and enhanced their effectiveness as educators. The perceptions of B.Ed faculty members at Tamil Nadu Teachers Education University regarding the course

"Understanding the Disciplines and Academic Subjects" are characterized by positive feedback and challenges. The course is widely regarded as advantageous for enhancing comprehension of diverse academic subjects and enhancing teaching practices. This study underscores the significance of ongoing professional development for educators and emphasizes the role of courses in facilitating this objective.

Additionally, it implies that enhancing the course design and content could result in a more favourable perception among faculty. Several studies have examined the effectiveness of e-learning or online education. These studies include Almahasees, Mohsen & Amin [14], Encarnacion, Galang & Hallar [15], Gopal, Singh & Aggarwal [16], Mamattah [17], Muthuprasad, Aiswarya Aditya & Jha [18], Ninsiana, Gabidullina, Widodo, Patra, Pallathadka, Alkhateeb, Gheisari [19], ReechaJrall, & Kiran [20], Srivastava [21], and Thakkar & Joshi [22]. These studies collectively provide evidence supporting the efficacy of e-learning. Research can assess the efficacy of e-learning materials for the course 'Understanding Disciplines and School Subjects'. To make the teaching process more effective, it is necessary to produce e-learning resources for the course 'Understanding Disciplines and School Subjects'. Fatima & Naaz [3] conducted a study demonstrating the efficacy of participatory learning techniques in education. This course can incorporate participatory learning techniques. Various teaching methodologies can be considered and implemented to enhance the manageability of the course.

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### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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