



## **Tracing the development of preservice teachers' efficacy beliefs in teaching economics during expanded microteaching.**

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### **Abstract**

*The present study investigated the development of teaching efficacy in pre-service teachers before and after their engagement with the expanded microteaching programme in compliance with Computer Supported Collaborative Learning (CSCL) environment. In this study, the expanded microteaching sessions were conducted to enhance efficacy beliefs of PSETs in teaching economics effectively. This approach was tried with 20 PSETs in Pillai College of Education & Research, Mumbai during the academic year 2012-13. The design of the Intervention Programme used in the study was informed by a theoretical framework derived from the literature in the fields of learning environments, expanded microteaching approach, computer supported collaborative environment, community of learners and efficacy beliefs about economic concepts. It was found that PSETs' views of practicing teaching changed positively and their efficacy beliefs augmented after the application of expanded microteaching assessment task in CSCL environment. Consistent with Bandura's social cognitive theory, the inclusion of CSCL environment and expanded microteaching experiences into economics methods course contributed to positive changes in PSETs' beliefs regarding economics teaching. performance and BMI, and Body fat.*

**Key words:** *Preservice economics teachers, Economics teaching efficacy beliefs, micro teaching, CSCL, expanded microteaching.*

## **Introduction**

Beliefs have been defined as the lenses through which an individual looks when interpreting the world and as such affects the way one interacts with the world (Philipp, 2007). When considering this definition in educational contexts, teachers hold interpretive lenses through which they filter experiences in their classrooms that inform their behaviours in this environment. Research has established that teachers' beliefs about teaching and learning are linked with their instructional strategies and, consequently, student learning in the classroom (Philipp, 2007; Thompson, 1992; Wilson & Cooney, 2002). Most teachers have an extensive set of core beliefs about economics as a fixed set of facts and concepts with the knowledge authority residing in textbooks; further, teachers serve as the intermediary between the textbooks and students (Smith, 1996). Traditional teaching of economics is about telling, or providing clear, step-by-step explanations of economic concepts while students learn by listening and practicing these concepts. Changing these beliefs is a difficult process. Efficacy beliefs are often informed by past experiences (Bandura, 1977); hence, most preservice teachers' sense of teaching efficacy is founded on traditional notions of economics education rather than the reform perspective.

It has been found that the connections between theory and practice are often not made explicit during university teacher training programs (Bransford, Brown, & Cocking, 2000; Grossman, 2005), leaving pre-service teachers under-prepared for field experience. Not being fully prepared may result in pre-service teachers feeling less than efficacious about their ability to teach. Results from previous studies (Benton-Kupper, 2001; Borg, Kallenbach, Morris, & Friebel, 1969; Fernandez and Robinson, 2006; Subramaniam, 2006; Yeany, 1978) point out that pre-service teachers need to be prepared with information about the reasons for doing a microteaching session and that they need clear criteria to help them connect teaching theory to teaching practice. Nevertheless, there are indications that the sense of teaching efficacy beliefs is highest during the training or pre service education years (Riggs & Enochs, 1990). Bandura (1977, 1986, and 1997) postulated that efficacy beliefs would be most malleable (easily influenced / trained) in the early stages of learning and training. Thus, it is suggested that in the process of enhancing and consolidating teachers' sense of efficacy beliefs, especially the personal teaching efficacy, teacher training institutions have important and significant role to play. Kpanja (2001) also recommends every teacher training institution to include microteaching with video equipment in

their pre-service teacher education program. With changes in educational research methods, with a greater focus on discourse and developments in the theory and practice of teacher education approaches, it is necessary to re-examine microteaching to improve its significance (Bell, 2007).

The current microteaching applications have the following shortfalls to name a few for a pre-service teacher lecturing in a microteaching class:

- (1) The classroom environment formed artificially is not same with the actual classroom environment in an elementary, middle or secondary school.
- (2) The time to conduct the sample microteaching lesson is less than the actual duration of a lesson, which may result in pre-service teachers' lack of recognizing their own teaching skills.
- (3) Audience in a microteaching class knows the topic beforehand, which the lecturing pre-service teacher may not recognize the possible difficulties in teaching the same topic in a real school environment.
- (4) The pre-service teacher may not have an idea of his/ her own classroom management skills.

Investigating pre-service math teachers' expanded microteaching experiences, Peker (2009) found that after expanded microteaching, pre-service teachers had an opportunity to observe themselves lecturing identified where they need help to improve their teaching skills and strengthened these skills. Also, they made more and better preparations for lectures. The literature suggests that CSCL environments may provide a particularly useful support for maths-anxious preservice teachers because the users themselves define the function and disposition of the math inquiry conference in order to meet their needs (DiMauro & Jacobs, 1995; Brett et al., 2002). The benefits of group work or collaboration is that it can bring positive results such as deeper understanding of mathematical content, improved self-esteem and higher motivation to remain on task (Walker, 1985; Hare & O'Neill, 2000). More importantly, collaborative and cooperative learning helps students to become actively and constructively involved in content, and takes ownership of their own learning that leads to their development as critical thinkers. Scaffolding of learning has been identified as a necessary condition for learning in a number of different learning contexts including Computer Supported Collaborative Learning (CSCL) environments.

In short; it is fair to believe that CSCL as a mode of scaffolding expanded microteaching can act as a reflective mirror for pre-service teachers. After this process, each of the pre-service teachers is expected to find out his/ her weaknesses in teaching economics and improve his/ her teaching skills. The main objective in expanded microteaching procedures is to educate prospective

economics teachers as qualified with having self-confidence and being good at field knowledge as well as teaching skills, establishing a nice dialog with the students, dressing in a good manner and so forth.

## 2. Review of Related Literature

Research has showed that the pre-service teachers' confidence improved using of microteaching or expanded microteaching (Peker, 2009a., Sen, 2009., Dogan-Dunlap et al., 2007). Peker (2009a) reported that the expanded microteaching made improve the trainee teachers' confidence. According to him, the applications which caused improvement are; making more preparations for lecturing, opportunity for pre-service teachers to watch themselves, fulfil their deficiencies if there are any, being advised by other pre-service teachers and advisor, having feedback after watching the presentation, for other pre-services teachers having the opportunity to benefit from the strong points of their friend's presentation and strengthen their skills. Philippou and Christou (1999) examined the efficacy believes of primary school teachers with respect to teaching mathematics. Regarding this issue, 90% of the teachers agreed with the statement: "sometimes I feel anxious that a student might ask me a question that I do not know how to answer or cannot explain". Baki (1996, 1997) suggests that mathematics teachers should be equipped with content and pedagogical content knowledge. It is not always possible for a pre-service teacher, who has a deep content knowledge, to teach the students what PSTs know. To know well is not always enough to teach well. Every pre-service teacher should know the ways of teaching what he/ she knows. It can be suggested that expanded microteaching applications are effective in that it provides a pre-service teacher with the opportunity to find out to what extent he/she can teach what he/she knows.

In their experimental study, *Brian Nelson and Diane Ketelhut* explores how students with different self-reported levels of self-efficacy in science succeed in a science curriculum presented in a video-game-like environment. A number of researchers (e.g., Ainley & Hidi, 2002; Hickey, 1997; Jarvela & Niemivirta, 1999; Pintrich, 2000) support the need for the development of methodologies and measures that access the dynamics of students' subjective experiences or reactions whilst they are engaged in a learning activity. Ainley and Hidi suggest that such methodologies and measures provide a new perspective from which to consider the relation between what the person brings to the learning task and what is generated by the task itself. Doerr and Tripp (1999) argue that learning environments that provide opportunities where it is

safe to express ideas, ask questions, make reasoned guesses as well as work with technology while engaging in problem situations elicit the development of not only significant mathematical models but more importantly a deep mathematical understanding.

Teaching efficacy is an important variable that links knowledge, skills and the behaviour of teachers in order to produce efficient and effective teaching practice. As academic efficacy is essential for students, and so is teaching efficacy for teachers as well, hence; these two aspects are very important for the ones to be teachers (Chambers & Hardy, 2005). Research over the last 30 years has revealed that pre-service teachers who graduate from university may have knowledge of their own subject matter and teaching pedagogies, but they do not necessarily have the ability to implement their skills and present their knowledge in the classroom. Some teachers who are highly opposed have left their teaching without the feeling of being teachers confidently that is called as teaching efficacy (Redmon, 2007).

When the research on economics education is examined, it is seen that there is no application in which CSCL and expanded microteaching approaches are used to bring real life to the class. Expanded Microteaching as an assessment piece for the unit was considered a highly relevant way to enhance preservice teachers' understanding of how to apply theory into actual teaching and learning experiences. It was proposed that having an opportunity to thoroughly research a topic and then teach a lesson on that topic would result in raising preservice teachers' efficacy in relation to their teacher preparation skills and knowledge.

A number of authors have stressed the importance of teacher confidence, especially the aspect termed self-efficacy, in successful teaching (Lloyd, Braund, Crebbin & Phipps, 2000; Ginns & Watter, 1996). This is where the teacher needs to be confident in communicating his or her own understanding of the economic concepts he or she seeks to teach. Considering the large proportion of preservice student teachers entering teacher education programs with negative efficacy beliefs about economics, it seems imperative that one of the major aims of preservice education programs should be to address student teachers' negative efficacy beliefs about economics and enhance their levels of efficacy beliefs about teaching economic concepts.

### **3. Theoretical framework for the study**

The theoretical framework for this study was derived from research literature from the fields of learning environments, expanded microteaching, computer-supported collaborative learning

(CSCL), community of learners, and efficacy beliefs about learning. A review of the research literature indicates that first and foremost, the development of safe and non-threatening learning environments are crucial to ensure that preservice student teachers who lack confidence and have low efficacy beliefs can feel safe to explore and communicate about economic concepts and to explore and relearn basic economic concepts. Furthermore, the development of efficacy beliefs and the development of a community of learners usually can occur simultaneously provided that participation is made available and perceived as an opportunity for negotiation of meaning and agreement. This is reflected in Component 1 of the theoretical framework.

The literature also suggests that without a conceptual knowledge of economic concepts, economical power is diminished which leads to a decrease in economics-confidence. Therefore, it has been argued that low efficacious PSETs need the opportunity to engage in practical inquiry and reflection about economic concepts and economics teaching as can be afforded by engagement in expanded microteaching activities that allows for multiple approaches. This is reflected in Component 2 of the theoretical framework.

Component 3 of the theoretical framework relates to the benefits of CSCL environments scaffolded in expanded microteaching. The literature suggests that CSCL environments may provide a particularly useful support for economics efficacious preservice teachers because the users themselves define the function and disposition of the economics inquiry conference in order to meet their needs.

Component 4 of the theoretical framework, Community of Learners, was based on research into the development of a community of learners. The benefits of group work or collaboration is that it can bring positive results such as deeper understanding of economics content, improved self-esteem and higher motivation to remain on task. More importantly, collaborative and cooperative learning helps students to become actively and constructively involved in content, and takes ownership of their own learning that leads to their development as critical thinkers.

A review of the literature also indicates that it is crucial to assist economics efficacious preservice teachers to become aware of their learned negative beliefs and emotions about learning economics, and that self-monitoring these emotions allows for them to enhance their efficacy beliefs. This is reflected in Component 5 of the theoretical framework.

**4. The Study:** The aim of the study was to design, implement and evaluate an intervention program whose purpose was to develop economics efficacy beliefs in twenty PSETs.

The following research questions provided the framework for the study:

1. Does the expanded micro teaching help in enhancing economics teaching efficacy beliefs among PSETs?
2. What is the PSETs' perceived utility of expanded microteaching in enhancing their economics teaching efficacy beliefs?

**5. Research Method:** In this study the researchers used an embedded experimental design one of the designs of mixed method research. During this research, surveys, observations, field notes and interviews were used to gather data. It was for this reason the researchers felt that mixed method – embedded experimental design was the most appropriate for data collection which was justified by a number of reasons. First, integrating qualitative and quantitative data provided strong evidence for conclusions, and provided better inferences in enhancing economics teaching efficacy beliefs of PSETs. Quantitative data analysis was predominantly used in this study because the main purpose was to detect efficacy beliefs in PSETs. Qualitative analysis results were used to support and further explain the quantitative results.

**5.1 Participants:** This study revolved around PSETs from Pillai College of Education & Research, Mumbai. In this study the researcher followed the convenience sampling procedure defined by McMilan (2000), where a group of participants is selected because of availability. The total samples thus selected were 20 PSETs consisted of 18 females and 2 male members. Participants were Graduates as well as post graduates.

The following table 1 shows the Demographic Profile of the PSETs:

Educational Background	Gender		Age wise			
	Male	Female	20 yrs	21 – 25yrs	26- 30 yrs	Above 30
B.Com	00	11	01	05	02	03
B.A	02	05	01	05	01	00
M.A	00	02	00	02	00	00

## **5.2 Instruments:**

The researcher used the following instruments for data collection in this study:

1. Demographic information
2. Economics Teaching Efficacy Beliefs Scale
3. Semi structured post intervention interview schedule
4. Computer Supported Collaborative Learning Framework
5. Observation schedule for assessing expanded micro lesson of PSETs
6. Written Reflections of PSETs.

The development and theoretical underpinnings each of these instruments and their purpose are discussed below:

**5.2.1 PSETs demographic information consisted of:** name of the student, gender, age, Educational Qualification, No. of years of experience.

**5.2.2 Economics Teaching Efficacy Beliefs Questionnaire (ETEBQ):** The purpose of ETEBQ was to: a) have the PSETs recognize and accept their beliefs about economic concepts, both before commencing and at the completion of the intervention programme and b) measure trends in the PSETs low or high beliefs about economics as their learning process was unfolding. The ETEBQ was a Likert type questionnaire including 30 items. ETEBQ had eight dimensions: 1) Efficacy in classroom management, 2) Teacher's perception of economics, 3) Ability to teach economics effectively, 4) Level of economics teaching proficiency, 5) Level of economic teaching preparation, 6) Beliefs about good teaching and its influence on students' performance and success, 7) Ability to communicate effectively, 8) Efficacy in instructional strategies. The participants were asked to rate the statements on a five point scale – Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. The negative statements were weighted from 1 to 5, and the positive statements were reversed.

**5.2.3 Semi-structured Post-intervention Interviews:** A semi-structured interview was developed in order to examine the perceived utility of expanded microteaching to enhance efficacy beliefs in PSETs. The researcher designed five questions for the post semi-structured interview which were as follows: 1. Give me your overall impression about lesson planning through expanded microteaching supported by CSCL. 2. Prior to the Lesson planning using



expanded microteaching supported by CSCL, what was your attitude toward teaching economics? In what ways do you think it changed as the two weeks progressed? 3. Was there any part of the group instructional planning and execution activity that may have changed your perception about teaching economics concepts to std. IX students who can learn economics concepts well? If so, give me an example.

The design of these questions was informed by the research literature on efficacy beliefs.

**5.2.4 Computer Supported Collaborative Learning Environment:** This study used a CSCL software application called Meta-Studio, which evolved from an application known as 'Computer Supported Intentional Learning Environment' (CSILE). CSILE was originally developed in the late eighties and is a networked learning environment for fostering higher-level processes of inquiry in elementary education (Scardamalia et al., 1989). Meta-Studio is a fully component-based knowledge building environment. During the course of the study, participants were required to post their group lesson plans on Meta-Studio shared database where they could be reviewed by other members of the learning community (i.e., other participants, the researcher). Each participant was also required to look at and review other groups' lesson plans and then to post feedback notes to the other groups about their lesson plans via Meta-Studio. The data in Meta-Studio was analysed to determine the level of community interaction by reviewing the postings, counting the ratings of lesson plans which had automatic tracking programmes. This enabled the researcher to assess changes in the PSETs patterns of collaboration and discourse. For this study, a conceptual framework was generated, known as the 'scaffolded growth of knowledge model'. This conceptual framework provided a structure for future research using lesson planning methodology (Berenson et al., 1997) within the context of CSCL.

**5.2.5 Classroom Observation Schedule:** The researcher used an observation schedule for every lesson given by PSETs. It was a yes/no type two point scale. The purpose of this schedule was to find the following areas: 1. Content organisation, 2. Use of resources and learning environment, 3. Teaching method/skill, 4. Teacher student interaction.

**5.2.6 Written Reflections:** After giving every lesson each PSET was required to write their reflections based on the framework prepared by the researchers. This framework had sixteen questions.

**5.3 Procedure:** In this study, the participants collaboratively developed online a ‘Guiding Principles Model’ that was used to inform the development of lesson plans. Through developing the ‘Guiding Principles Model, the participants developed, reflected upon and shared understandings about promoting optimal learning experiences for students they taught.

The study proceeded in four phases:

1. Preparation
2. Orientation
3. Expanded Microteaching Approach using CSCL
4. Evaluation

**5.3.1 Preparation:** In this phase, first the researcher implemented ETEBS to ascertain the pre-test efficacy beliefs scores of PSETs. The major purpose of this phase was to generate data to inform the process of allocating participants into their knowledge-building communities (or groups). Each participant’s perceived difficulty of economic concepts was determined. Following this, the participants were divided into groups of four. Each group consisted of five PSETs. The topics about economics were delivered to 4 groups according to their difficulty level. The four economic concepts were as follows:

- Introduction to Economics
- Basic concepts of Economics
- Sources of Income
- Family Budget

The researcher further divided the topics into 20 sub-units.

**5.3.2 Orientation:** To ensure that all participants had access to, and were able to navigate their way through the Meta-studio for lesson planning activities in the expanded microteaching Approach, the participants engaged in an orientation activity. The activity required them to know about lesson implementation through expanded microteaching and also to get hands on training in operating Meta-studio and to then post the lesson plans to be used for the online activity. The activity was scaffolded by sets of explicit instructions.

**5.3.3 Expanded Microteaching Approach using CSCL framework:** During this phase of the study, each team was required to engage in expanded microteaching approach using CSCL framework for collaborative development of a ‘Guiding Principles Model’ that was used to inform the development of lesson plans. This online collaboration involved each member of a

group in the processes of generating and posting lesson plans on to the Meta-Studio discussions, providing questions, comments and propositions to other members of the group via the Meta-studio. The expanded microteaching approach using CSCL framework provided the researcher with a rich source of both quantitative and qualitative data. The nature and content of the contributions of the group members to this approach also were analysed.

**5.3.4 Evaluation:** The lesson plans individually and collaboratively generated by the PSETs were implemented by the PSETs in front of their peers as well as in a real classroom setup. After every lesson PSETs wrote their reflections about the lesson. The researcher used the observation checklist during the PSETS lessons. At the end of the study, all participants were introduced to post intervention ETEBS to ascertain their post intervention scores. Following the survey, semi-structured interviews were conducted by the researcher to investigate any changes that may or may not have occurred to their levels of efficacy beliefs of teaching of economics. These interviews were tape-recorded and subsequently transcribed for analysis.

**6. Results and Findings:** The purpose of this study was to trace the development of preservice teachers' efficacy beliefs in teaching economics during expanded microteaching in CSCL environment. Two specific questions were raised for investigation at the beginning of this study. Therefore, results were first presented according to the issues and this was followed by the discussion to answer the following research questions.

**RQ. 1** Does the expanded micro teaching help in enhancing economics teaching efficacy beliefs among PSETs?

To answer the first Research Question, the researcher conducted the descriptive and inferential analysis of the data and drew the conclusions. Table 2 depicts the pre and post mean and standard deviation scores of economics teaching efficacy beliefs of PSET

Variable	Scores	N	Mean	SD	t- ratio	Table value		I.o.s.
<b>Economics Teaching Efficacy Beliefs</b>	Pre-test	20	117.1	7.41	6.88	0.05	2.09	significant
	Post test		124.6	6.66		0.01	2.86	

As seen in Table 2, the means of pre and post- scores on ETEBQ for the whole PSETs were (M=117.10, SD=7.41) and (M=124.60, SD=6.66) respectively. Mean scores and standard

deviations across the administrations provided in Table 2 indicates the statistical significance difference between the means revealed that the PSETs had significant increases in their beliefs, in their skills and abilities to teach economics effectively throughout the Expanded microteaching programme. These descriptive results can be interpreted as PSETs have high economics teaching efficacy that they have necessary skills to teach economics effectively.

An independent t-test was conducted to evaluate the impact of the expanded microteaching programme in CSCL environment on efficacy beliefs of PSETs in teaching of economics. Table 2 indicates the inferential significant difference between the pre and post – scores of efficacy beliefs of PSETs. t value is significant both at 0.05 as well as at 0.01 levels which showed the effectiveness of the expanded microteaching programme to enhance the efficacy beliefs of PSETs in teaching of economics.

This finding has statistically significant implications for economic education and teacher preparation. Numerous studies in the past found a statistically significant relationship between K-12 student achievement and teacher self-efficacy (Ashton & Webb, 1986; Brookover et al., 1978; Ross, 1992). In addition, teacher self-efficacy was found to be a construct that is amenable to training, experiences, and other forms of support (Lamorey & Wilcox, 2005). Various approaches have been proven to be effective for improving teacher self-efficacy including workshops, mentoring, and practicum experiences (Cannon, 1999; Huinker & Madison, 1997; Mulholland & Wallace, 2001; Zuckerman, 1999). Although these previous studies on teacher self-efficacy focused on science and mathematics teachers, the approaches and strategies used in these past studies can be applied to economics educators as well. Since teacher self-efficacy has a relatively strong relationship with intentions to teach economics, interventions aimed at improving self-efficacy may result in higher intentions.

Based on the qualitative analysis of the semi-structured interviews and reflections the researchers have tried to answer the following RQ.

**RQ. 2** What is the PSETs' perceived utility of expanded microteaching in enhancing their economics teaching efficacy beliefs?

To answer this question, the researchers used qualitative data collected through semi-structured interviews with twenty PSETs and their reflections on the expanded microteaching approach for enhancing efficacy beliefs in teaching of economics. The researchers adopted an interpretive qualitative research approach to gather and analyse the semi-structured interviews as well as the

reflections. The researchers used an Interpretative Phenomenological Analysis approach to gain insights in to the way PSETs perceive and experienced the expanded microteaching approach as an instructional tool for enhancing efficacy beliefs in teaching of economics.

As a qualitative research approach, IPA has its theoretical origins in phenomenology and hermeneutics. The framework was designed by Smith, Jarman and Osborn (1999). A researcher can deploy IPA if the aim of the study is to explore individuals' perceptions as well as understand how they (individuals) make sense of their experiences. IPA aids in the interpretation of perceptions, experiences, events and actions held for individuals in a study (Chapman & Smith, 2002). The framework helps in explanations that give insights to understand human experience better (Fade, 2004). IPA is both phenomenological and interpretative. It is phenomenological because it "seeks an insider perspective on the lived experiences of individuals", and is also interpretive because it "acknowledges the researcher's personal beliefs and standpoint and embraces the view that understanding requires interpretation" (Fade, 2004).

In this study as already indicated above, the researchers wished to analyse in detail the perceptions and experiences of the PSETs regarding the expanded microteaching for enhancing the efficacy beliefs in teaching of economics. Semi-structured interviews were used to engage in a flexible dialogue with the participants in the study. Interviews were audio-recorded with the consent from the participants; the interviews were then transcribed verbatim. Again, the interview data was triangulated by the participants' reflections on how they perceive themselves prepared to integrate the expanded microteaching in a CSCL environment in their teaching. In the process of analysis, the researchers did a detailed systematic qualitative analysis of the transcripts. Then the researchers extracted and listed the themes. The themes were then clustered in a meaningful way by looking for connections between them to develop super ordinate themes. The researchers also had obtained permission from the institution and the participants to collect their written reflections and interview them after the expanded microteaching programme. Consent to record the conversations from the participants who participated in the semi-structured interviews was also obtained by the researchers. Privacy and confidentiality were adhered to throughout the research process. Using IPA to analyze qualitative data collected through: (i) semi-structured interviews with twenty PSETs who participated in the expanded microteaching programme in a CSCL environment; and (ii) the participants' written reflections. The following super ordinate themes became evident:

### **Building Learning community:**

Group work and the development of a community of learners were strongly supported by the participants. The PSETs valued the collaborative nature of lesson planning. Sharing ideas and perspectives facilitated by the heterogeneous groups was considered very beneficial.

One of the participants said, "I saw how helpful coming up with a lesson plan with colleagues can be. It helped to bring in new ideas to the group's lesson".

Another participant in particular felt that feedback from the group and rating of a lesson plan on meta-studio contributed to her development of confidence. She explained:

"It was a very innovative and very enriching technique. Till today we have all been solitary workers and whatever our perception is, whatever is our stand in quality we used to put in our lessons. But this kind of collaborative learning helped me to develop multiple perspectives and opinions and the quality and the delivery of content multiplied. I don't know how many times it multiplied. It helped me to enhance both the quality and the delivery of the lesson. During these sessions Economics came to life".

Collaborating with one another on the analysis of the lessons was also important for PSETs growth which was expressed by their replies: "Analysing one another's lessons, allowed them for feedback from others to assist in their growth and improvement of the lesson".

After reflecting upon the group lessons and work some PSETs expressed:

"When we were assigned the groups for lesson planning, we were apprehensive about it initially. After the group members started to form ideas on how to put the lesson together, this group activity became exciting and we were enthusiastic about getting started. Being able to come up with own ideas was not something we had experienced before, but it encouraged us to be creative and allowed our imaginations to run wild..... Some group members felt that case studies would be the best way to teach economic concepts. Others felt that games or pictures, crossword puzzles would be a creative way to display our knowledge we had gained. We decided to incorporate these ideas in all our lessons. This gave us pride of our work, and allowed the class to see how each participant put together their ideas. We think that this training programme was an excellent way to show our individual ideas and teaching/learning styles".

### **Promoting Engagement**

Expanded microteaching in CSCL environment facilitated an environment where PSETs helped each other and made their own decisions. Thus, they believed this new approach increased their motivation to learn economics and changed their perception about teaching of economics. The following two comments are representative of nineteen out of twenty students: This is what we wanted. Many of my friends have shown their interest in teaching economic concepts. We took part in the activities. In the past most of us used to feel less confident to teach economic concepts.”

“We are very motivated to teach economic concepts now because during collaboration we exchanged our ideas and also we got sufficient time to think about the concepts or issues before making a decision”.

When asked the question whether they have seen any changes in the way they teach economics now, all twenty teachers who participated in the study acknowledged the changes. They not only acknowledged the changed teaching but also highlighted the importance of having various teaching techniques to be effective in the classroom.

“Teaching is not only delivering the lesson plans to students. It should have different techniques in order to be effective. I think expanded microteaching in CSCL environment has changed our teaching.... It made me to think about the way I teach economics, and now I prefer to involve students in teaching and learning rather than encouraging them to sit passively in the classroom”. Majority of the PSETs stated that the lesson planning through the expanded microteaching in a CSCL environment helped them to understand the economic concepts more meaningfully than the traditional method of teaching, because economics is a theory based on an abstract subject. Expanded microteaching provided them the opportunities to discuss and elaborate things through face-to-face group activities to learn economic concepts more easily and to retain them much longer.

#### **Greater contribution to professional learning:**

The PSETs recognized the growth in their own lessons: “As a group we realized how important it was to make each lesson more student led rather than teacher led. Getting away from a teacher-centered classroom was hard, since that was how most of us learned. After seeing how a student-led lesson improved student’s understanding of economic concepts, we saw how valuable it was in our teaching”.

The PSETs also expressed that the expanded microteaching provided them with an opportunity to begin implementing what they were learning within CSCL environment where they felt comfortable and built confidence.

Expanded microteaching provided PSETs with knowledge and skills for lesson planning, developing learning activities and implementing such lessons in classrooms. PSETs acknowledged the benefits that this approach could bring for their teaching economic concepts, as the following two PSETs quotes show:

“My past way of teaching has changed because of the training programme. Consequently there is a change in the teaching, in the classroom behaviour, increased students’ interest in the subject and their active involvement in teaching and learning process.”

“I have observed changes in my class because of the training programme.....I have gained in depth knowledge about economic concepts due to this programme.

One of the PSETs’ expressed that due to lot of interaction among group members and brainstorming sessions among them, healthy competition among groups motivated them to come up with novice ideas about teaching aids to be used to make the lesson effective.

Two PSETs who were not that well versed with computer operations expressed that during the programme they got lot of cooperation from their peer group members and today they are able to handle computer confidently which helped them to incorporate innovative ideas in their teaching. It seemed the PSETs perception of group work changed noticeably after the intervention. Nevertheless, after the implementation of the training programme, all twenty teachers indicated the likely benefits of working in groups in teaching of economic concepts. They also noted that student behaviour and involvement changed. The following comments were typical across all PSETs:

“We are more interested in involving in the classroom activities. For example, now we want more group activities and discussions. We want to help each other rather than working individually. We are very pleased with each other’s cooperation”.

“Group learning made me think about the way I teach economics and now I prefer to involve students in teaching and learning rather than encouraging them to sit passively in the classroom”.

### **Building strong bond of collaboration**



After the implementation of expanded microteaching in CSCL environment all twenty teachers were able to build a strong bondage. The following two comments share their views of this bondage:

“Working in collaboration helped us to sit together in groups and helped each other to complete the group’s lesson plans, activities. In other words individual group members were accountable for their own learning as well as their peer learning....thereby the entire group understood economic concepts better than the individual activity.

“Working in groups helped each other to complete the group’s activities as we all were accountable for our work as well as our group mate’s work. Working together in groups face to face and discussing the teaching learning activities to achieve the whole group’s learning rather than achieving the individual learning was really very motivating”.

All twenty teachers were optimistic about group learning, and believed that it opened their eyes more towards alternative teaching methods. Furthermore, it changed their perception about the traditional teaching methods. The following quotes summarises their ideas with regard to their perception about expanded microteaching:

“I believe my perception about teaching economics has changed. Now I realise that there is a room for us to work together and develop positive relationships among us in order to maximise the understanding of economic concepts. Now I see myself more equipped to teach economic concepts”.

“The success of our lesson planning and implementation in expanded microteaching was a result of cooperative group working of the entire group. Ideas were formed together by brain storming and individual contribution which made the class fuel with energy ready to run”.

### **Development of knowledge bases of the PSETs**

Before implementation of the expanded microteaching programme PSETs perceived economics as abstract subject which is a theory based. But due to the lesson planning in groups and implementation of lesson planning, PSETs got an opportunity to discuss and elaborate the economic concepts which helped them to get an insight about the economic concepts. The two comments below represent their views:

“I think group lesson planning activity and expanded microteaching helped us to understand the economic concepts more meaningfully than the traditional method of teaching, because economics is a theory based on an abstract subject. This programme provided us the

opportunities to discuss and elaborate the economic concepts through face-to-face group activities which helped us to learn more easily and we were able to retain the economics concepts much longer. I also think that this programme helped to develop more social skills and better communication among the class and outside the class.

“We understood the concepts more easily because we had the opportunity to discuss and share our ideas..... our way of thinking about economics has changed, and our understanding of the concepts have improved greatly since the group work being implemented.

The PSETs described in more detail their lesson planning and expanded microteaching experiences with their peers:

“Expanded micro teaching had been a learning experience for me. Our lessons helped us to introduce important economic concepts that were useful for the students. It had also helped us to see how important it was to be prepared when teaching an economic concept.....”

“The expanded microteaching activities were helpful in that they were preparing us to teach economic concepts and giving us practice in the classroom. I know that I needed this because I had always been so weak in economics and I didn’t want to carry this into my own classroom”.

“I was never very confident in my abilities to teach economic concepts, but that changed dramatically....after teaching an individual lesson I realized that not everyone can teach an economic concept in the same way and I understood then that I must find a variety of ways to teach the economic concepts. Economics requires patience, exploration and an open mind. My attitude towards economics has changed because I now realize that economics teaching can be fun”.

In their post interviews, the PSETs described in more detail their lesson planning experiences with their peers:

“My lesson planning experiences had been wonderful. I did a lot of co-operative planning with my peers. I made sure that I addressed the concepts and the goals and objectives that we were trying to meet”.

.....in the past I used examples very rarely when teaching. But now because of lesson planning and the expanded microteaching that provided more discussions and examples to understand the economic concepts more easily”.

It appeared that PSETs were positive about the implementation of the expanded microteaching in a CSCL environment, and the effectiveness of this programme in terms of teaching and learning of economics to enhance their efficacy beliefs.

As a way of examining PSETs new and old understandings, one of the participants explained:

“This entire training programme encouraged them to personify or give life to ideas for their own learning so that connections were made between economic concepts and real life. This collaborative work helped them to keep digging deeper for content than just skim pages”.

As the PSETs worked together on various economic concepts, there was a notable shared sense of purpose and spirit of cooperation. As one prospective economics teacher noted in her interview at the conclusion of the entire programme,

“I was hesitant about discussing economic concepts, but since I did it, it was very helpful. For one thing, it helped me realize just indeed how many ideas and applications I could think of. It was through the group’s conversations that my thoughts were prompted.

PSETs even expressed -confidence was much improved, too:

“I found working with my peer I felt less self conscious about where the gaps in my knowledge lie. Being able to work at a pace that was suitable for me to internalise the knowledge was very helpful.”

They were also positive about the expanded microteaching approach’s contribution in raising their confidence in teaching economic concepts. One PSET said:

*“Before this entire training programme, I hated teaching economics concepts like introduction to economics, Baluta system but now I can teach it confidently”.*

Another PSET was quoted as saying:

*“I used to skip teaching topics like Baluta System, Agro Based Industries, Introduction of Economics because of difficulties I was facing in planning lesson as well activities but not now.”*

In support of these opinions, other PSETs said that the expanded microteaching approach had accomplished the following:

- Enabled them to handle a topic which appeared to be difficult before.
- Reduced their fear of teaching the economics topics ;
- Helped to minimise problems they experienced in teaching economic concepts;
- Enabled them to discover mistakes normally committed in teaching economic concepts;
- Introduced them to a new teaching approach that facilitates student participation ;
- Helped to increase their confidence in teaching economics.

In short, the participants perceived the expanded microteaching as useful in enhancing both subject matter knowledge in economics and pedagogical content knowledge.

**7. Conclusion:** This study concluded that there was a statistically significant difference found in regard to the economics teaching efficacy beliefs due to practicing teaching with expanded microteaching. In other words, the instruction using of the expanded micro-teaching in teaching practice may be effective on enhancement of PSETs efficacy beliefs in economics. Therefore, if the teacher education programs hope to influence the development of effective instructional practices for preservice teachers, they may focus on CSCL environment scaffolded in expanded microteaching in teaching practicum course. This programme provided opportunities for PSETs to apply their pedagogical content knowledge and pedagogical knowledge with children and to further develop personal teaching instructional competency, skills and abilities.

All PSETs believed that economics should be taught in a way that reflects real-life applications and connections. They also believed that various inquiry-based approaches such as case studies, games, and simulations are appropriate for teaching economics. Furthermore, PSETs believed that students learn economics better if it is taught using visual demonstrations, charts, models etc. In addition to finding the right strategies, PSETs also emphasized that these strategies should be used correctly in order to achieve the anticipated effects. These responses support the quantitative data that the use of the expanded microteaching approach in CSCL environment increased PSETs efficacy beliefs because they got to observe, practice and discuss the actual skills that would be required to draw upon as teachers.

**8. Limitations:** This study was limited by the short period of time allotted for this research study due to the hectic schedule of B.Ed course. During the course of the study, PSETs often commented that they felt that they needed a longer period of time in order to become more familiar and expert in using the computer mediated tools. The researcher followed the convenience sampling procedure, and the sample size may not big enough for someone. Therefore, this sampling also limits the findings of the study.

**9. Implications:** The current study has several possible implications and suggestions for practitioners. The result of this study implies that incorporating an expanded microteaching experience into a preservice teacher education programme may cause enhancement in the teaching efficacy beliefs of preservice teachers in economics. Using of the expanded microteaching in teaching practicum courses is very beneficial from the preservice economics

teachers' perspectives. According to Peker (2009), using of the expanded microteaching in teacher training has significant improvements on self confidence, planning, timing, giving different examples, asking questions, class management, using of effective material.

Clearly, there is need for further research and development of innovative interventions that focuses both on affective and cognitive domains of learning economics, to effect permanent change to efficacy beliefs about economics in economics low efficacious pre service teachers. Further studies into addressing and understanding the general acceptance and existence of negative beliefs and misconceptions about economics in our society should focus on how this relates to our culture of learning and teaching economics.

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