School Experience Program’s Role As the Field Experience Practice of Teacher Candidates

Deshinta Puspa Ayu Dwi Argaswari¹,², Adesti Komalasari²
Sampoerna University, Indonesia¹,²
E-mail: deargaswari@gmail.com¹, adestikomalasari@gmail.com²

Abstract

This research aims to explore the role of the School Experience Program (SEP) as the field experience program for FOE teacher candidates. The study uses a qualitative method of research. Data is collected through the documentation of SEP documents, teacher candidates’ e-portfolios, and interviews as an addition. The research is conducted during the SEP on FALL 2020/2021. The results showed that the designed SEP can transform the Teacher candidates' beliefs toward the teaching profession. Interestingly, each stage of SEP takes different roles in shaping the Teacher candidates' beliefs about the teaching profession. Year 1 SEP has roles for Teacher candidates to understand the teaching and learning process, the learners, and also learn to think like a teacher. Year 2 SEP has a role for teacher candidates to learn to teach the subject matter knowledge including the administration, teaching materials, preparation, and evaluation. Year 3 of SEP has a role for teacher candidates to implement the theory of teaching and learning so they can develop the relevant materials. Year 4 SEP has a role for Teacher candidates to understand the teaching profession and develop tools and disposition to study teaching.

Keywords: field experience, School Experience Program (SEP), pre-service teacher
INTRODUCTION

School Experience Program (SEP) is Faculty of Education’s flagship program to prepare pre-service teachers (Teacher candidates) to learn to develop their skills, knowledge, and dispositions to be effective and transformative educators. The students have to follow this program every semester, where they start from simple tasks such as classroom and/or school observations, assisting mentor teachers in lesson preparation, instruction, and assessment, co-teaching with mentor teachers, to developing inquiry skills (reflection, research) at partner schools.

School Experience Program (SEP) aims to give them opportunities to experience real circumstances at schools, to develop knowledge, skills, and dispositions needed to be professional, transformative, and high-qualified teachers. By doing tasks in every stage, the students would have to develop specific skill sets starting from observing teaching and learning in classrooms and school environment, assisting mentor teachers in preparing lesson plan, assessment tools, and other teaching materials, reflecting upon teaching process, developing lesson plans and teaching materials, co-teaching learning sessions with mentor/homeroom teachers, leading teaching and learning processes, to preparing and conducting data collection and data analysis.

In each semester, the Teacher candidates will be assigned to visit school and have field experience for two weeks except the Year 4 Teacher candidates. Since Year 4 Teacher candidates are about to graduate, they need to have more intensive field experience so for semester 7 they will have one-month field experience and at semester 8, they have 2 months field experience. Along with the SEP, some of the courses will embed their assignments with SEP activities, and Teacher candidates will write reflections at the end of every semester’s field experiences. Even though SEP in the FALL 2020 semester cannot be carried out as field-based experience due to Pandemic, the Teacher candidates will still conduct SEP’s virtual-based experience. All preparation for SEP is done virtually by the SEP coordinator, so during this FALL 2020, FOE will send their Teacher candidates to schools all over Indonesia to have the school experience program virtually.

To be well-rounded teachers who are aware of the values of their profession, the teacher candidates need professional experiences to find their identity, where they can apply and challenge the knowledge they have learned in the classrooms to real school situations. Teachers are not only expected to be professional in terms of teaching abilities, characteristics, and skills (Caires et al., 2012) but also in classroom management which is an indicator for better teaching and learning (Chan, 2004) Such characteristics need to be demonstrated by every pre-service teacher who wishes to create interesting, enjoyable, and knowledgeable classroom experiences.

Ng stated that the self-regulated and reflective professionalism of the teacher candidates is developed through the teaching experience. Professional development is an important and a core element of teachers’ lives and teacher’s identity (Ng et al., 2010). It is a “resource that people use to explain, justify, and make sense of themselves in relation to others, and to the world at large” (Al-Mahrooqi, 2012). Msangya who held the teaching practice experience for their pre-service teacher also mention that during the teaching practice, the pre-service teacher will be given an opportunity to create the art of teaching before they become the real teacher after graduation (Msangya et al., 2016). The pre-service teachers also develop their value shifted from students hood into the member of professional work during the teaching experience (Ranjan, 2013).

Mudra conducted a study on Pre-Service Teachers’ Experiences in Teaching Practicum in Rural Schools in Indonesia, and he points out that those who begin teaching, hope that their teaching can be great, meaning that it should enhance learners’ knowledge or understanding (Mudra, 2018). In addition to this, Coe highlight that there has to be six components of teaching, namely “pedagogical content knowledge, quality of instruction, classroom climate, classroom management, teacher beliefs, and professional behavior” (Coe et al., 2014). Teachers in practice are not only expected to undertake teaching process, but also to ensure that each
teaching element is organized, and they have more opportunities to actively implement the six teaching components in classroom interaction. Therefore, the role of teaching practice/practicum in their professional journey is crucial.

A specific objective of Teaching Practice is to enhance pre-service teachers’ “knowledge, value, character, good behavior” for their successful future teaching (Hamalik, 2009). In line with this statements, SEP gives teacher candidates experiences and opportunities to learn from and about each other and understand the different ideas of individuals from their peers, mentor teachers, and from personnel at different schools. These experiences must be introduced and explored before the pre-service teacher graduate through the pre-service teaching experience.

The school partners for this fall semester’s SEP are varied, there are public schools, private schools, Islamic boarding schools, religious-based schools with different types of applied curriculum. Some of the schools have strong characteristics and some schools have unique values in education. Along with the experience, Teacher candidates beliefs about the teacher profession are changing. Therefore, this research will elaborate and explain how SEP takes pivotal roles in their professional development.

RESEARCH METHODOLOGY

This research will use qualitative methods to describe the role of SEP as the filed experience to enhance the viewpoints of PTS towards teacher professionalism. The research will start by 1) gather the preliminary data about how Teacher candidates perceive teaching as a profession and towards the professionalism, 2) conduct the SEP during the FALL 2020/2021, 3) collect data about Teacher candidates performance and reflection using the e-portfolio after the SEP, 4) conduct the document analysis towards the SEP documentations nd decide the sample, 5) conduct the interview with selected Teacher candidates as needed, 6) analyze the data gathered, 7) re-conduct steps 2 to 6 during SPRING 2020/2021 if needs additional data, 8) write and conclude the research into report. The targeted participants of this research are all Teacher candidates or teacher candidate from Year 1, Year 2, Year 3, and Year 4. In total there are 67 teacher candidates in Faculty of Education, Sampoerna University.

This study was conducted by using descriptive qualitative. Descriptive qualitative as “narrative is understood as a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected” (Czarniawska-Joerges, 2004). Denzin and Lincoln state that in descriptive qualitative research, the objective of analysis is on lived events which are experienced by human as social subjects (Denzin & Lincoln, 2000). They also added that this type of research design is experienced in a natural setting and is used to describe social events and phenomenon as holistic description.

From the above definitions of descriptive and qualitative design, it can be summed up that descriptive qualitative research attempts to explain and describe what a participant experiences throughout their life story. In line with that, this current study described several obstacles, as experienced by pre-service EFL teachers during their teaching practicum.

The instruments to answer the research questions are 1) Documentations: There are a lot of documentations of SEP such us the SEP Guideline, SEP Minutes of Meeting, SEP Presentation Materials and so on. Through those documentations, researcher will identify the purpose which might lead to the expected roles of SEP for the Teacher candidates’ perspectives. 2) E-portfolio: The e-portfolio is the collection of each Teacher candidates’ documentations of SEP. It consists of the teaching materials made by them, the documentations photos, and reflection of each semester SEP. Through all the collected SEP, the researcher will identify the role of SEP that Teacher candidates agreed with. 3) Interview: The interview is conducted to explore how the Teacher candidates feel about the role of SEP for transforming their perspective. Selected Teacher candidates will be asked some questions through the semi-structured interview via phone call or zoom meeting.
FINDINGS AND DISCUSSION

Findings

The analysis of data collection shows the result to answer the research question on how SEP takes pivotal roles in their professional development. Generally, Teacher candidates’ beliefs about teaching profession is changing along with their participation on SEP. Interestingly, each stage of SEP takes different roles in shaping the Teacher candidates beliefs about teaching profession. Each of the roles in each stage lead the development of skills and knowledge of Teacher candidates. These skills and knowledge support their changing beliefs towards the teaching profession. The details of roles of SEP are described and explained based on the research findings as follows.

Year 1: Observer

All of stages and role of SEP is derived from its Five Core Proposition of SEP which taken from National Board for Professional Teaching Standards, USA (Document SEP) consist of the following objectives: 1) teacher are committed to students and their learning, 2) teachers know the subject they teach and how to teach those subjects to students, 3) teachers are responsible for managing and monitoring student learning, 4) teachers think systematically about their practice and learn from experience, 5) teachers are members of learning communities. The overview of program and expected outcomes is explained on the following picture.

![SEP Overview](image)

| SEP LEARNING OUTCOMES | Semester 1 | Semester 2 | Semester 3 | Semester 4 | Semester 5 | Semester 6 | Semester 7 | Semester 8 |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1. Examine beliefs critically in relation to vision of a good teaching | V | V | V | V | V | V | V | V |
| 2. Develop subject matter knowledge by teaching | V | V | V | V | V | V | V | V |
| 3. Develop an understanding of learners, learning, and issues of diversity | V | V | V | V | V | V | V | V |
| 4. Develop and exact a beginning repertoire | V | V | V | V | V | V | V | V |
| 5. Develop the tools and dispositions to study teaching | V | V | V | V | V | V | V | V |

Picture 1. SEP Overview

The first stage of SEP is an orientation stage at which Teacher candidates are expected to understand learning and learners and learn to think as a teacher. Through semester one and two (Stage 1 SEP), Teacher candidates will: 1) examine beliefs critically in relation to vision of a good teaching, 2) develop an understanding of learners, learning, and issues of diversity, 3) develop tools and dispositions to study teaching.

The analysis from data taken from the documents and e-portfolio shows how the first stage of SEP influences Teacher candidates’ beliefs towards the teaching profession. In their first year of SEP, Teacher candidates must switch their perspective from a student because they just graduated from high school into a teacher's perspective. For some of the Teacher candidates, it is challenging since they just experienced it for the first time. Luckily, their task on the first year SEP is to become an observer. Teacher candidates are given...
an observation sheet so they can focus on the things that are important to see as a teacher. Teacher candidates begin to be aware about the students-teacher(s) interactions in the classroom and outside classroom. In this stage, Teacher candidates are given the opportunity to see the students learning. Some of the teacher candidates notice how impactful the teacher role and design of activities are to the enjoyment of students in learning. Seeing these little things has changed the perspective of Teacher candidates towards the teacher profession. It can be seen from the reflection.

Goldstein and Lake stated that how students see (care) towards the students' learning will bring impact to their images, ideas, beliefs, and understanding towards the teaching careers (Goldstein & Lake, 2003). The slow process of this growth and change will continue throughout the Teacher candidates teaching career. Observation also become the opportunities for the new teacher candidates to notice features of the classroom environment, content of lesson, and teacher and students communication during a lesson (Star & Strickland, 2008).

Other than that, they pay attention to the school’s value and culture. The SEP leads the Teacher candidates to become aware about mostly concerning things as a teacher as a part of the school. They also started to think and imagine themselves as a prospective teacher. It can be seen from their e-reflections. From the interview, mostly Teacher candidates change their perspective from not wanting to become a teacher into interested in becoming a teacher. 4 out of 6 Teacher candidates agreed that they want to have a career as a teacher after graduation. It is also seen from the most reflection of Teacher candidates on their first year SEP. This findings is appropriate with the theories that observation could help a beginner to watch what they are about to experience in the future and learn better from it (Andrieux & Proteau, 2016). Similar research from Anderson shows that the observation has an important role for teacher candidates to influence their beliefs towards teaching profession (Anderson et al., 2005).

In conclusion this first stage of SEP has a role for Teacher candidates to see the teaching and learning process generally, understanding the role of teacher, and specially changing their perspective towards the teacher profession. This first year of SEP that consists of observations can help to examine PST’ beliefs in relation to good teaching and develop an understanding of learners, learning, and issues of diversity. In conclusion, the role of SEP in the first stage can help Teacher candidates to understand learning and learners, and learn to think as a teacher.

Year 2: Teacher Assistant

In year 2, SEP has roles for Teacher candidates to learn to teach subject matter and understand social emotional learning. Through the semester three and four, Teacher candidates will: 1) examine teacher candidates beliefs critically in relation to vision of good teaching, 2) develop subject matter knowledge for teaching, 3) develop understanding of learners, learning, and issues of diversity, develop and enact beginning repertoire, 5) develop tools and disposition to study teaching.
On the implementation of Year 2 SEP, Teacher candidates deal with the administration and documentation as a teacher. Teacher candidates start their role as teacher assistant so it requires their persistence to work on the teaching materials that need to be prepared and also other preparation materials such as semester syllabus, timeline mapping, assessment mapping, and any others. These tasks make the Teacher candidates aware that the teaching documents and administration needs to be prepared before, within, and after the class schedule. Teacher candidates are aware of the needs on how to teach the subject matter.

Other than that, Teacher candidates start to recognize the role of the teacher in the teaching and learning process, what’s important to be done and what's the consequences of any decision made by the teacher. Teacher candidates also how the teachers character and decision give impact towards the students feeling and students’ learning. Students can be emotionally affected by the design of activities and how teacher interact during the teaching and learning process. They start to reflect on their experience of what a good and effective teacher is. From the experience of assisting the teacher, Teacher candidates learn about the role of the teacher directly. This can be seen through their reflection.

"I see that Miss P wants to involve her students in teaching and learning activities as much as possible. Involving students helps them to be more critical and express themselves more. When assisting in the class, the teacher explains the material by herself and we are around the students to help them if they face some difficulties. It is the first time for me to do it so it feels a little bit awkward in the beginning but since they are nice students, I can interact with them well. This moment taught me to be more active and initiative in interacting with students”

In conclusion, the Stage 2 of SEP has a role for Teacher candidates to learn to teach subject matter and understand social emotional learning. Through learning to teach subject matter, they get to know well with the administration, teaching materials, preparation, and evaluation of teaching and learning. It is in line with other research stating if the preservice teacher is set together with the inservice teacher, it could develop a sense of professionalism (Anderson et al., 2005). In this stage the professionalism is about teaching subject matter knowledge.

Year 3: Co-teacher

In year 3, SEP has roles for Teacher candidates to learn to develop relevant materials and learn to integrate new technologies in teaching. Through the semester five and six, Teacher candidates will: 1) examine teacher candidates beliefs critically in relation to vision of good teaching, 2) develop subject matter knowledge for teaching, 3) develop understanding of learners, learning, and issues of diversity, develop and enact beginning repertoire, 5) develop tools and disposition to study teaching.

On the implementation of SEP on stage Year 3, Teacher candidates have more reflections about how the teaching and learning theories are implemented in the classroom. Teacher candidates in this stage design the lesson plan including the details of the learning activities. Some of the activities are implemented well and meet the expectation of the theory learned on the campus.
But then, some activities did not run well and they needed to adjust quickly. Teacher candidates then reflect that they are supposed to always have a backup plan. The SEP has a role to make Teacher candidates aware with links of theory and implementations. Through the SEP, they develop the wisdom in deciding learning activities for their students. In fact, they are aware that the theory learnt from campus cannot be directly applied to the classroom, they have to consider many things such as the students' characteristics, the atmosphere, the materials given, the value needed to implement and many more.

The SEP also has a role to evaluate how the assessment is implemented in teaching and learning. In the campus, Teacher candidates know the theory about assessment. But then through SEP, Teacher candidates learn how to create the assessment and evaluate the assignment. In fact, Teacher candidates state that creating assessments is not as easy as they think. At first, they try to create an assessment, implement it, and the result is not as expected. There are variations of answers from the students that they did not predict. It can be concluded that in this stage, SEP has roles for Teacher candidates to develop relevant materials (activities and assessments) that suit the students characteristics and ongoing situation.

Year 4: Independent Teacher

On the stage 4 of SEP, PSTs learn comprehensive skills and knowledge as a professional teacher. PSTs teach independently, and so it gives them opportunities to be reflected on. Many things were mentioned on their e-reflection on the e-portfolio. There are variations of reflection about methods of teaching, classroom management, and also role as a teacher. Here some of the highlight from their reflections:

1. PSTs learn through the stage 4 of SEP that they must give a very clear instruction during the learning process. They experience failure in the instructions and expected activities. Therefore they mention that it is necessary to provide very clear instructions for the activities. The step by step instructions given to give more details. The instructions need to be written and orally explained.

2. PSTs in online learning especially, reflect the technologies used during the teaching and learning process. Through the experience, they become aware that the technologies implemented should be chosen effectively and efficiently. It brings new knowledge for them that it is important to use one or maximum two technologies in one session. It avoids the confusion and overwhelmedness of using technology. This agrees with the theories about the implementation of technologies in the field experience. According to Hixon, there are five benefits of technology in the field experience (Hixon & So, 2009): 1) exposure to various teaching/learning environments, 2) creation of shared experience, 3) promoting reflectivity, 4) preparing students cognitively, and 5) learning about technology integration. From this benefit, it can be seen that the PSTs during SEP on the Stage 4 are able to expose various technologies in teaching and integrate the technology, but then they reflect on the use of technology in their next teaching and learning.

3. Other than the technologies, PSTs learn about the classroom management in deep. So far in their learning in the campus, they were given some theoretical knowledge and simply practiced it during their learning
at campus. In the SEP, some of the theoretical knowledge was successfully implemented but they also experienced failure. Not all tips are applicable for certain situations and certain class characteristics. Even if they teach the same class, everyday situations are different, and vice versa. In facing this problem, PSTs develop their wisdom in teaching and learning process. They reflected that they need to master the situation in their class, know their students well, and be one step ahead in planning. They also have to prepare the backup plan always.

4. Most PSTs also reflected themselves in the role of teaching. They are somehow confused in putting themselves as a teacher or as a friend for learning. This generation of PSTs seems to be concerned that they could help students better if they can help students as a friend. This SEP brings them to be aware of the role of the teacher “when I should become a teacher and when I should become a helpful friend”. Interestingly, they did not come into conclusions at the end of SEP. They keep this question in mind and become a long life learner to deal and learn about this issue.

This quote from one of PSTs e-portfolio reflection shows that the role of SEP in stage 4 brings awareness for them that in becoming a professional teacher, they should learn many more things and keep learning. Therefore, it is important for them to become a long life learner.

“School Experience Program give a lot of opportunities to me to learn directly in the real school and classroom. From this program, I can learn the perspective as a teacher in the classroom and learn a lot about classroom management. This program also can give an overview to the teacher candidates when they will teach in the school in the future. So, this is not the last to learn directly in school, but this is the preparation as the first step before we as teacher candidates will enter the school and become real teachers there.”

It can be concluded that, SEP at this stage has fulfil the expected roles for PSTs to understand the teaching profession and develop tools and disposition to study teaching.

**Discussion**

This research reveals that the design of SEP in stages which relevant to the five core propositions has pivotal roles in PSTs professional development. It has been described how the SEP influences the PSTs beliefs towards teaching profession, skills in developing subject matter knowledge, understanding of learners, learning and issues of diversity, skills in reflection (repertoire), and skills to develop the tools and dispositions to study teaching. Each stage of SEP has a pivotal role in transforming the PSTs beliefs towards the teaching profession.

This design of field experience (SEP) has successfully transformed Teacher candidates beliefs since based on the theory this program is more beneficial than others. Based on Musset, the program of field experience can be conducted with three different types: concurrent, consecutive, and concurrent-consecutive (Musset, 2010). The design of SEP is followed by the design of concurrent type of field experience. This design is more beneficial since the practical experience is conducted at the relatively similar time with the theory given in the campus (Lui & Bonnes, 2016). SEP is designed to follow the needs of each semester's progress courses. At which the courses are designed step by step to prepare the Teacher candidates as professional teachers. Other than that, the concurrent design has given more time for the Teacher candidates to interact with the teaching profession, this has beneficial to shape the Teacher candidates beliefs and determination towards teaching profession (Elhensheri, 2004).

**CONCLUSION**

Through the implementation of SEP and a brief research from the data of e-portfolio and SEP documents, each stage of SEP has a role to shape the pre-service teachers as a professional teacher. The first
stage of becoming an observer, gives insight for the students about the teaching and learning process generally. Through this observation, Teacher candidates examine and develop their beliefs about teachers and significantly change their perspective about career as a teacher/educator. The second stage of becoming a teacher assistant, Teacher candidates to get to know well with the administration, teaching materials, preparation, evaluation of teaching and learning, and role of teacher. In this stage, SEP has role for Teacher candidates to learn to teach subject matter and understand social emotional learning. The third stage of becoming co-teacher, has a role to give Teacher candidates opportunities to implement the theory of teaching and learning learnt from campus into the practice at school. This stage gives a huge reflection for most Teacher candidates about the teaching and learning methods. Through experience in the implementation of theories into practice, Teacher candidates are able to develop relevant materials (activities and assessments) that suit the condition. The last stage of becoming a teacher has a significant role to understand the teaching profession and develop tools and disposition to study teaching. The whole process of stage four led the Teacher candidates to reflect on the classroom management, methods of teaching, technologies of teaching, and the role of teacher. At the end, Teacher candidates come to the conclusion that they still need more experience and learning to become a professional teacher. It can be summarized that SEP has a role to bring awareness for Teacher candidates to become long life learners in order to become a professional teacher.

This research shows the significant impact of the designed SEP (with four stages) towards the Teacher candidates transformation beliefs. This SEP can be set as an example and new model for the field experience conducted by other faculty of education at other universities in Indonesia after reviewing its beneficial and doability. In spite of the fact that this can influence other programs, this research is limited with the time and scope. For the next research, similar research can be focused on the transformation of beliefs and practices with bigger scope in Indonesia.

REFERENCES
Al-Mahrooqi, R. (2012). June 2012 Foreword. The Asian EFL Journal.
Anderson, N. A., Barksdale, M. A., & Hite, C. E. (2005). Preservice Teachers’ Observations of Cooperating Teachers and Peers While Participating in an Early Field Experience. Teacher Education Quarterly, 32(4), 97–117.
Andrieux, M., & Proteau, L. (2016). Observational learning: Tell beginners what they are about to watch and they will learn better. Frontiers in Psychology, 7(JAN). https://doi.org/10.3389/fpsyg.2016.00051
Caires, S., Almeida, L., & Vieira, D. (2012). Becoming a teacher: Student teachers’ experiences and perceptions about teaching practice. European Journal of Teacher Education, 35(2), 163–178. https://doi.org/10.1080/02619768.2011.643395
Chan, K. (2004). Preservice Teachers’ Epistemological Beliefs and Conceptions about Teaching and Learning: Cultural Implications for Research in Teacher Education. Australian Journal of Teacher Education, 29(1). https://doi.org/10.14221/ajte.2004v29n1.1
Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). What makes great teaching?
Czarniawska-Joerges, Barbara. (2004). Narratives in social science research. Sage Publications.
Denzin, N. K., & Lincoln, Y. S. (2000). Handbook of qualitative research (2nd ed.). Sage.
Elhensheri, N. (2004). An Investigation Into Academic , Professional and Pedagogic Aspects of the training Programme For Teachers Of English As A Foreign Language At AlFateh University - Libya. I.
Goldstein, L. S., & Lake, V. E. (2003). The Impact of Field Experience on Preservice Teachers’ Understandings of Caring. Teacher Education Quarterly, 30(3), 115–132.
Hamalik, O. (2009). Kurikulum dan pembelajaran [Curriculum and learning]. Bumi Aksara.
Hixon, E., & So, H.-J. (2009). Technology’s Role in Field Experiences for Preservice Teacher Training. In Educational Technology & Society (Vol. 12, Issue 4).

Lui, A., & Bonnes, S. (2016). Preservice and inservice teachers’ knowledge, beliefs, and instructional planning in primary school mathematics. Teaching and Teacher Education, 56, 1–13.

Msangya, B. W., Mkoma, S. L., & Yihuan, W. (2016). Teaching Practice Experience for Undergraduate Student Teachers: A Case Study of the Department of Education at Sokoine University of Agriculture, Tanzania. Journal of Education and Practice, 7(14).

Mudra, H. (2018). Pre-service EFL teachers’ experiences in teaching practicum in rural schools in Indonesia. Qualitative Report, 23(2), 319–344. https://doi.org/10.46743/2160-3715/2018.3115

Musset, P. (2010). Initial Teacher Education and Continuing Training Policies in a Comparative Perspective: Current Practices in OECD Countries and a Literature Review on Potential Effects. 48. https://doi.org/10.1787/5kmbphh7s47h-en

Ng, W., Nicholas, H., & Williams, A. (2010). School experience influences on pre-service teachers’ evolving beliefs about effective teaching. Teaching and Teacher Education, 26(2), 278–289. https://doi.org/10.1016/j.tate.2009.03.010

Ranjan. (2013). a Study of Practice Teaching Programme: a Transitional Phase for Student Teachers. Voice of Research, 1(4), 24–28.

Star, J., & Strickland, S. (2008). Learning to Observe: Using Video to Improve Pre-Service Mathematics Teachers’ Ability to Notice. Journal of Mathematics Teacher Education, 11, 107–125.