Abstract

As a compulsory part of their training program, Indonesian pre-service teachers have to do a year’s training in remote areas. To date, research into transformative learning benefits of teacher training in remote areas is scarce. Therefore, this study aims to investigate (1) pre-service teachers’ transformative learning experiences while teaching in remote areas, and (2) the role of pupils’ problems in this transformative learning process. This study used a qualitative approach by conducting in-depth interviews with 41 teachers from three universities in Indonesia following a pre-service teacher education program. After spending one year of their training in a remote Indonesian area, they were questioned about their teaching experiences gained during that specific training period. The data were analysed using NVivo 11. The findings showed that pre-service teachers experienced transformative learning outcomes while teaching in remote areas. Pupils’ lack of study motivation and their low ability to understand the lesson triggered pre-service teachers to engage in a transformational learning process through which their resilience improved. Pre-service teachers perceived pupils’ problems in remote areas as an opportunity rather than a threat. The transformative learning framework of this study assists in explaining successes for their resilience improvement. Becoming resilient can encourage teachers to stay longer in the teaching profession. Therefore, teacher education programs can consider teaching in remote areas as a valuable contribution to the professional development of future teachers.

Keywords: Pre-service teachers’ resilience, transformative learning, remote areas, school children’s problems.
1. Introduction

There is a growing research interest in how a teacher education program can prepare pre-service teachers to become a school-ready teacher. Research proves that a teacher education program contributes to teachers’ competence development irrespective of the school context where they will teach in the future (Brouwer & Korthagen, 2005). One way to prepare pre-service teachers is through gaining teaching experience in schools. In Indonesia, the government reformed the teacher education program in 2011 with a strong emphasis on teaching practices in schools. As compulsory part of the teacher education program, Indonesian pre-service teachers have to do a year’s training in remote areas. To date, research into transformative learning benefits of teacher training in remote areas is scarce. In this study, we explore the benefits of teaching practice in remote areas for pre-service teachers as well as how it can trigger transformative learning processes.

1.1. Teaching practice in teacher education program

Today, generally speaking, a teacher education program not only emphasizes coursework to prepare pre-service teachers, but also teaching practice. Through teaching practice, a teacher education program gives more opportunities to pre-service teachers to implement what they learn during coursework in real-life. Teaching practice facilitates pre-service teachers to integrate theory into practice in various ways (Allen & Wright, 2014). This stresses the need of teaching practice before pre-service teachers are employed in schools. Adoniou (2013) noted that although a university can attempt to use representative examples, experiences in real time have a profound influence on their teaching knowledge. Teaching practice supports pre-service teachers to learn how to cope with school duties. Sadler and Klosterman (2009) strengthen previous statement, showing that field experience through teaching practice can effectively contribute to teachers’ professional development. Pre-service teachers do not only apply the knowledge in practice, they also keep on developing their teaching skills (Adoniou, 2013). Also, they attempt to theorize their practical knowledge (Ditchburn, 2015). Such experiences can enrich their understanding of teaching and learning in educational practices (Turbett, 2007).

Although gaining experiences in teaching practice is necessary for pre-service teachers, defining school for practicum placement is also highly essential. School will transform pre-service teachers who are ‘university context’ oriented into ‘work-life’ oriented (Dahlgren & Chiriac, 2009). In this way, school is an arena to determine what kind of teachers, pre-service teachers will be. School context is considered a determinant in improving teachers’ knowledge (Wanzare, 2007). Thus, broadening teaching experiences in diverse contexts with pupils from diverse backgrounds can enrich the pedagogical knowledge (White & Kline, 2012). Participating in a regional, rural and remote area develops pre-service teachers’ knowledge and skills (Trinidad et al., 2012).

In much of the literature on pre-service teachers’ teaching practice in diverse contexts, teaching practice in either rural or remote schools provides unique opportunities to deal with the complexity of teaching (Mulcahy, 2007). Difficult physical access to school, pupils’ absenteeism, pupils’ low academic achievement and parents’ poverty underpin those complex problems. Authors claim that education expenses, pupils’ poverty (Gumus & Chudgar, 2016; Rao & Hossain, 2011; Shi et al., 2015) and pupils’
low academic performance (Shi et al., 2015) result in school drop-out. Also, another study addresses the complexity of rural schools which are lacking connectivity as well as school facilities (Diwan, 2015). Finally, the last contribution to rural remote complex problems is unequal funding distribution which exacerbates the disparities between rural remote and urban schools (No, Sam, & Hirakawa, 2012).

Hence, regarding the complex problems above, rural and remote schools appear to be more demanding than urban ones in terms of school duties (Drummond & Halse, 2013). Arguably, these demands in rural and remote areas will become a trigger for pre-service teachers to learn. Teaching practice in school enables pre-service teachers to experience professional learning about school daily life (Darling-Hammond, 2015). We emphasize that professional learning involves emotion. Thus, participants’ ‘emotional readiness’ is essential (Aitken, 2015). In other words, with their motivation and commitment to teaching, pre-service teachers turn the hardship they experience while teaching in a rural school into a challenge (Islam, 2012). The hardship pre-service teachers encounter, includes their dilemma situations to face conflicts between their values, positions and actions during their teaching training. Being in dilemma situations forces pre-service teachers to reflect to resolve their situation at school (Ditchburn, 2015; Fransson & Grannäs, 2013).

Regarding the challenges in rural and remote areas, pre-service teachers describe teaching practice in rural remote areas as ‘never boring’ and feeling ‘excited’ (Raggl, 2015). One study highlights the value of teaching in rural areas as it provides ‘unique challenges’ for pre-service teachers to prevent teacher retention (Mafora, 2013). Teachers tend to stay at school when challenges are provided (Burke et al., 2013). Such challenges help pre-service teachers to view their workplace differently (Loughran, 2005). Finally, teaching practice proves to enhance pre-service teachers’ understanding about the complexity of rural remote schools (Brook et al., 2015).

1.2. Transformative learning

Transformative learning was first introduced by Mezirow in 1978 during his study about women who re-enrolled in college. The transformative learning framework significantly developed over the years. However, the implementation of transformative learning remains limited.

Transformative learning is a part of adult learning which empowers learners to experience changes on rational and emotional level (McGonigal, 2005). The role of emotion is highly validated in a transformative learning process (Coady, 2013). Thus, it is considered as ‘a generic process of adult development’ (Mezirow, 1978). Meanwhile, Kegan (2000) reinterprets transformative learning in presenting a more epistemological definition of transformative learning which involves changing ‘learner’s form of knowing’.

Mezirow introduced 10 phases of transformative learning with a disorienting dilemma as a beginning phase (Mezirow & Marsick, 1978). Other phases include self-examination; a critical assessment; relating one's discontent to a current public issue; exploring options for new ways of living; building competence and self-confidence in new roles; planning a course of action and acquiring knowledge and skills for implementing one's plans; provisional efforts to try new roles; and a reintegration into society on the basis of conditions dictated by the new perspective (Mezirow, 1978, 2000). Despite the existence of 10 phases, disorienting dilemmas and critical reflection are known to be the core of a transformative learning process (Doucet, Grayman-Simpson, & Shapses Wertheim, 2013).
A disorienting dilemma occurs as a result of an oppressive action (Mezirow, 1994) or a ‘life crises’ (Mezirow, 1978), meaning that the learner encounters an uncomfortable or unexpected situation or problem which is difficult to solve. In other words, a transformative learning process often holds taking risks (Hutchison & Rea, 2011). This kind of dilemma is relevant to pre-service teachers who are in the beginning of their teaching practice. Pre-service teachers are still students with limited teaching experiences who need to act as real teachers. When pre-service teachers are placed in a school for the first time, a shift is necessary from being a student teacher to become a real teacher. This adaptation creates a tension inside pre-service teachers themselves (Pillen, Beijaard, & Brok, 2013). The tension gradually poses a dilemma in pre-service teachers’ work (Pillen, Beijaard, & Brok, 2013), which is known as a professional dilemma (Helmich, Bolhuis, Laan, Dornan, & Koopmans, 2014). In transformative learning, the tensions leading to disorienting dilemmas refer to the non-alignment between learner’s thoughts about their work with the demands of the workplace (Helmich et al., 2014).

Another key core of transformative learning is critical reflection. Disorienting dilemmas provoke a process of reflection (Mezirow, 1994). In transformative learning theory, learners benefit from a period of reflection to interconnect between their past experiences or knowledge, the reasons why they reflect and their understanding of their current experiences (Babacan & Babacan, 2015). In this kind of reflection, both content and process are essential (Babacan & Babacan, 2015). Thus, in transformative learning both the learning process and the outcomes are equally important.

Furthermore, a process of reflection in a transformative learning phase primarily involves a problem solving process (Mezirow, 1994). Reflection occurs in transformative learning after the learners examine the problems (Tse, 2007). Therefore, problem solving process in transformative learning means ‘defining, redefining or reframing the problem’ (Mezirow, 2000).

In teaching practice, we can also interpret how dilemmas and reflection occur. The dilemmas caused by pre-service teachers attempt to connect ‘university coursework’ with school practice (Addleman, Nava, Cevallos, Brazo, & Dixon, 2014). Also, the transformative learning process in professional practices prompts the enactment of new professional practices (Hoggan, 2016). Another study explains that the willingness to problematize practice is one dimension of ‘long-term professional growth’ (Mitchell & Mitchell, 2005). Eventually, transformative learning can promote professional development.

A professional development process involving transformative learning results in broader effects for the learners. One reason is because transformative outcomes always involve the dimension of thought, feelings, and will (Mezirow, 1978). In general, transformative outcomes can change someone’s worldview (Taylor, 1994). This means that learners engage in deep learning about themselves and the world around them (Dirkx, Mezirow, & Cranton, 2006; Mezirow, 2009). Thus, Mezirow describes the features of transformative outcomes which are often inclusive, and more integrative to gain experience (Mezirow, 1978, 1994, 1997).

2. Problem Statement

Although the growing body of literature on the effectiveness of teaching practice for pre-service teachers’ professional development, research about the competences they gain from teaching practice in
remote areas remains limited. The transformative learning theory might provide useful insights in this matter.

3. Research Questions

In this study, the following research questions will be addressed:

3.1. How do pre-service teachers experience their remote training as a part of their compulsory teacher education program?

3.2. Which problems of pupils in remote areas trigger pre-service teachers’ transformative learning?

3.3. How do pupils’ problems in remote areas trigger pre-service teachers’ transformative learning?

4. Purpose of the Study

The aim of the study was to investigate pre-service teachers’ transformative learning experiences in remote areas, and how pupils’ problems in remote areas could stimulate pre-service teachers’ transformative learning process.

5. Research Methods

The participants were pre-service teachers who participated in the SM3T program (teaching in Indonesian remote areas) which is a part of the national program to improve new teachers’ quality. This program is imposed on pre-service teachers in all majors; starting from primary education. We only selected primary pre-service teachers who participated in this SM3T program, because the location of primary schools for SM3T program was more isolated than other school levels. Besides, based on the program regulation, for teaching practice placement only one or two primary pre-service teachers were placed at the same time in one school to enrich their experiences in remote areas. Immediately after spending one year of their training in a remote Indonesian area, they were individually questioned about their teaching experiences gained during that specific training period.

This study used a qualitative approach by conducting in-depth interviews with 41 primary pre-service teachers selected from three universities in Indonesia following a pre-service teacher training program. In-depth interview has a ‘more informal’ and ‘conversational character’ which was sometimes influenced by the interviewer’s topic guide (Creswell & Creswell, 2017). This study conducted face-to-face interviews with participants. The total number of primary pre-service teachers who joined the training program was 90. While conducting in-depth interviews, data saturation was found after 41 interviews.

The data were collected using open ended questions encouraging pre-service teachers to discuss their teaching experiences and the situations they encountered during their one-year placement in remote areas. The interviews were audio-recorded and transcribed verbatim. The data were analysed using qualitative data software, NVIVO 11. The transcripts were read through repeatedly and coded by using thematic analysis. The key concept of thematic analysis is deciding the theme itself which represents the
overall research questions (Braun & Clarke, 2006). In this study, the themes of coding were more theory-driven (Braun & Clarke, 2006) based on the key concepts of transformative learning theory.

6. Findings

During pre-service teachers’ presence in the classrooms, the teaching of pupils in remote areas was led by following the national curriculum. The respondents reported that most of the children were not able to follow the taught lessons. “Many of the students could not follow the lesson. Of the 38 sixth graders in schools, maybe only half of them could follow the lesson, but the rest couldn’t.”

Some of the pre-service teachers prepared lesson plans referring to national curriculum because according to them this is what a good teacher should do. However, during the teaching and learning process in the classroom, many pupils were not able to follow. Pre-service teachers stated that pupils could not read nor master basic mathematics. One respondent revealed:

In the beginning, I prepared lesson plans but in fact it was useless because we could not implement what we had planned. Even when we forced ourselves to implement it, it would be useless since the pupils could not read as well as write.

Perceiving this situation, most of pre-service teachers were shocked. Before deployment, all preservice teachers received a short training. The training included how to teach students within the framework of the new national curriculum. In the end, although the university recommended pre-service teachers to teach according to the new national curriculum, they perceived it as useless afterwards since the training was not relevant for daily teaching in these contexts.

The 3rd graders of primary schools are supposed to be able to read and do figures, but the fact is, they can’t. It hinders their learning process because they cannot understand what we are teaching. I need to continue following the national curriculum but when they cannot read how I need to continue?

Moreover, most of the teachers profoundly felt confused as the training was tailored to the context of urban schools when 1st graders can read already, while in remote schools even 6th graders still cannot read. One respondent stated:

The first week teaching in the remote school, the shock was that I imagined, like in urban schools, that 1st and 2nd grade students of primary schools could read. What I found there, even 4th, 5th and 6th graders did not know anything about reading, and even writing the alphabet.

The confusion among several pre-service teachers, as described by the respondent above is because based on national policy, pupils must take a standardized national exam to graduate at primary school level. This exam in 6th grade is compulsory and mostly based on the curriculum taught between 4th and 6th grade.

This dilemmatic situation – national curriculum requirements versus actual learning needs in remote areas – experienced by pre-service teachers marked the beginning of a transformative learning process. The awareness of the complexity of the teaching practices in these areas made most of them decide to teach literacy and basic mathematics.
The preservice teachers’ transformative learning process was also stimulated by the fact that children in remote areas experienced difficulties to learn about literacy and basic education. Hence, they had problems to focus on the learning contents and easily forgot what the pre-service teachers taught.

I just taught before a break time, but after a break time, pupils already forgot. When I questioned them about what I just explained, they didn’t know anything. For example, finding the vocal letter such as AIUEO was already difficult for them. Even the 5th graders experienced difficulties to read.

Furthermore, the respondents reported low motivation of children to go to school. Pre-service teachers mostly reported high absence rates or a substantial number of children only attending school for half a day in their class.

We found that pupils rarely go to school. Everyday around 2 or 3 children did not come to school. During harvest, more children did not come to school. Probably more than half of my pupils was absent. They helped their parents. We tried to motivate the children to return to school, as children need to study instead of earning money. However, it’s kind of tradition in the village where we lived, so it was difficult. It exacerbated by parents who tend to neglect their children. They do not care whether their children go to school or not. Both children and parents are hardly aware of the importance of education.

Moreover, high resistance was also shown by the children when pre-service teachers attempted to motivate them to go school.

Children’s orientation is only money instead of education. I remember one pupil’s answer startled me when I tried to motivate him to go to school and study at home. He told me that studying made him tired without earning money. He preferred something promising such as collecting oil palms.

By collecting the fruits of oil palm, he could get money right away on the same day.

In this case, pre-service teachers reported feelings such as frustration and hopelessness. Some of them described how they wanted to give up the program. This kind of situation created other dilemmas among pre-service teachers – continue teaching by ignoring children who are absent versus continue teaching as well as motivating the children to go to school by involving the children’s daily life issues. These kinds of dilemmas – triggered by pupils’ low ability to understand the learning content and a lack of study motivation – engaged pre-service teachers overwhelmingly to reflect upon and reconsider the goal of the program when experiencing these frustrations, the reason why they were in remote areas, as well as the commitment they made before being deployed, which prevented them to give up. By reflection, pre-service teachers accordingly transformed their frustration into challenges they needed to resolve.

During my teaching experiences, I could not avoid pupils’ problems. Lack of study motivation and low ability to understand the learning content became my daily routine problems. So, I thought I need to turn it into a challenge; changing every difficulty into a challenge. I need to find a way to make children understand as well as remember the learning content.

As a result of their reflection process, they profoundly learned from these difficult experiences. They kept on trying to teach literacy and basic mathematics gradually, patiently and repeatedly. Moreover, they persistently kept motivating pupils to go to school. Pre-service teachers implemented various ways of
resolving these problems despite children’s resistance. The above strategies provided extra time and repetition at school for pupils to study literacy and basic mathematics, inviting children to come to pre-service teachers’ home to study, moving the class to a farm as well as helping children and their parents during harvest time and accompanying and helping children at seashore for earning extra money. One respondent described how they moved the classroom to the farm for the sake of the children:

> Once, we did not teach at school. All children could not come to school because they had to support their parents at the farm. It was a seeding time. So, all people in the village including children left the village. They moved to their farm located very far from the village. They would stay there for about 2 months. Therefore, we initiated to also move the class to the farm. We built a tent for our stay as well as a classroom during that time.

These pre-service teachers’ experiences – more specifically their difficulties, dilemmas, reflection and strategies to improve students’ learning – align with transformative learning phases. Pre-service teachers profoundly learned from these kinds of process. As result, pre-service teachers engaged in transformative learning process during their teaching practice in remote areas. Pupils’ problems at school prompted pre-service teachers to experience transformative learning. One responded reported what he learned from this remote experience:

> I learn a lot from this experience. I realize that becoming a good teacher is not easy. Motivating children in remote areas to go to school as well as to keep studying were very difficult. We need 1000 methods to motivate them. In my opinion, that’s the biggest challenge of being a teacher.

Furthermore, transformative outcomes found in pre-service teachers’ problematic experiences with pupils indicated pre-service teachers’ improvement on several competences. Pre-service teachers realized that engaging them with pupils who have complex problems improved their strength as a teacher. Another respondent emphasized:

> What we learn from teaching pupils in remote areas is never complaining. Encountering several pupils’ problems motivate me more to become a teacher in the future to resolve problems at any school.

Also, they reported that a teacher should be patient and persistent to appropriately deal with pupils’ problems. Pre-service teachers were also aware that boosting pupils’ motivation to keep on studying, is difficult. The biggest challenge of being a teacher in remote areas is to find ways to motivate children to keep on going to school. In this sense, they felt that experiencing teaching training in remote areas trained them to be a ‘ready teacher’ placed in any school in the future. Pre-service teachers described their teaching experience in remote areas as extreme experiences, yet full of challenges. They expressed that they did not regret teaching and meeting pupils in such remote circumstances. In the end, pre-service teachers explained that these teaching experiences in remote areas improved their skills, becoming a resilient teacher.

### 7. Conclusion

The findings of the present study showed that pre-service teachers experienced transformative learning outcomes while teaching in remote areas. The study also highlighted that pre-service teachers
entailed in several situations and activities known to be transformative learning phases. We uncovered several activities leading to transformative learning processes.

During their teaching training in remote areas, pre-service teachers engaged in multiple emotional experiences. They involved in various emotional reactions from surprise to sadness, addressing learning through experience (Liu et al., 2011). They often described their first days of the school as full of uncertainty and chaos which is in line with the research of Blackwell and Pepper (2009).

In this study, pre-service teachers’ emotional experiences derived from pupils’ problems in remote areas. Pupils’ low ability to understand the lesson and lack of study motivation caused confusion among pre-service teachers, hopelessness and led to other difficult situations. These difficult situations posed dilemmas. Pre-service teachers’ dilemmas could occur as a result of their focus on classroom management and challenging pupils’ behavior (Aspfors & Bondas, 2013). Feeling frustration, hopeless and confused in the beginning of their remote teaching experiences can indeed be related to the disorienting dilemma phase of transformative learning (Richards, 2015). Our results are in line with similar findings about the presence of emotional experiences in transformative learning initiated with disorienting dilemmas. For example, Kitchenham (2008) identifies the disorienting dilemma as the key concept of Mezirow’s transformative learning model. Mezirow identified the disorienting dilemma as the first phase of transformative learning (Mezirow, 1978). It seems that a transformative learning process cannot occur without being engaged in disorienting dilemmas.

Furthermore, we confirmed that pre-service teachers also experienced a period of reflection during their teaching practice in remote areas. A reflection is claimed to be another phase of transformative learning. Conflicting situation as a result of field experience led participants to experience reflection (Owens, Sotoudehnia, & Erickson-McGee, 2015). Another study also strengthened our results, “Disorienting dilemmas is a catalyst for reflection” (English & Peters, 2012). During pre-service teachers’ reflection process, they modulated their dilemmatic situations into a challenge they needed to conquer. Turning ‘emotional tensions’ into ‘positive emotions’ – changing pressures into opportunities – is a concept of professional growth (Day, Sammons, & Stobart, 2007), while transformative outcomes are often centralized in personal as well as professional growth (Mezirow, 1978).

While teaching experiences in remote areas contribute to pre-service teachers’ teaching knowledge and skills (Adoniou, 2013), transformative learning unfolds another dimension of pre-service teachers’ professional development. Children’s lack of study motivation and their low ability to understand the lesson triggered pre-service teachers to engage in a transformational learning process through which their resilience improved. A transformation process also tend to occur as a result of experiential learning (Kear, 2013).

Mukeredzi and Mandrona (2013) used the concept “adapt or die” to express how teaching practice program in rural areas nurtures pre-service teachers’ resilience as a result of rural contexts. Another finding affirms that challenges caused by rural students develop participants’ resilience during their first rural teaching experiences (McDermid, Peters, Daly, & Jackson, 2016). Pre-service teachers implement ‘counteractive strategies’ – such as giving extra time and taking time for repetition at school for pupils to study literacy and basic mathematics, inviting children to come to pre-service teachers’ home to study, moving the class to the farm as well as helping children and their parents during harvest time and
accompanying and helping children at seashore for earning money – to tackle pupils’ problems in high-need areas, which results in an increase of teachers’ resilience (Castro, Kelly, & Shih, 2010).

As pre-service teachers understand more deeply the complexity of pupils’ problems, their transformative learning outcomes during remote experiences contribute to their self-development as a teacher. In general, pre-service teachers’ worldview accordingly changed as a result of the transformative learning process. The improvement of their understanding about pupils’ complex problems in remote areas is comprehensive (Hoggan, 2016). Another indication of self-development through transformative learning is the increase of teachers’ self-empowerment as well as responsibility (Hoggan, 2016).

Pre-service teachers perceive pupils’ problems in remote areas rather as an opportunity than a threat since rural and remote schools can be strongly associated with school drop-out and poverty (Shi et al., 2015). The present study provided insight into the transformative learning processes that pre-service teachers experience, wherein teachers learn to view students’ problems as a motivation to become a ‘real’ teacher. Transformative learning often occurs when learners share experiences with children from low-economic backgrounds (Kear, 2013).

Ultimately, the transformative learning framework of this study contributes to explain successes in the increase of resilience. Becoming resilient as a teacher, can be an encouragement to stay longer in the teaching profession. Through transformative learning, pre-service teachers improve their competences which impacts their resilience. Resilience is an evidence of transformative growth, underpinning the ‘successful transition’ from ‘student teachers’ to a professional teacher (McDermid, Peters, Daly, & Jackson, 2016). It indicates that pre-service teachers are ready to become a ‘real’ teacher, being able to tackle challenges he or she encounters in the workplace. In becoming resilient, a preservice teacher can ‘survive’ in any school context. Resilient teachers are able to sustain their motivation regardless the ‘challenging circumstances’ (Hong, 2012). Therefore, the teacher education programs that take into account teacher training in remote areas, can be considered a valuable contribution to the initial professional development of teachers.

References
Aitken, A. (2015). Commentary: If education is the key to reconciliation, how will professional development contribute to unlocking the process? *LEARNing Landscapes, 9*(1), 15-22.


