Teachers’ shortage is a challenging problem at the secondary level internationally. Secondary schools recruit and co-ordinate with universities and training agencies to fill up the gaps in teachers’ shortage. However, the turnover rate of pre-service and in-service teachers is still high. Based on the self-efficacy approach, the purpose of this study is to understand the relationship between self-efficacy and career decision of pre-service student-teachers at the secondary school setting in California, United States. In addition, this research also captured how pre-service student-teachers describe their stress and career decision from their teaching profession. The finding indicated that a significant number of pre-service teachers decided to leave the teaching profession after the completion of the qualifying programs due to negative self-efficacy, sense of isolation, negative administrative style, and uncertainty of promotion. More importantly, the study pointed out that if the self-efficacy level is low, pre-service teachers are less likely for returning. The results of this research provided recommendations to school leaders, university administrators, professional teachers, and policymakers to reform the current educational system for teachers, particularly in the areas of teachers’ professional development, career development, and career decision.

Keywords: career decision, career decision, school human resources, self-efficacy, teachers’ education, teachers’ professional development, teachers’ training

INTRODUCTION

Regardless of the communities, socials and financial resources, K-12 schools are facing qualified teachers’ shortages. There are qualified pre-service, in-service, and school professional staff are available in the workforce (Dos Santos, 2019b). However, pre-service student-teachers, junior-level teachers, and experienced teachers decided to leave the teaching profession every year due to various reasons, such as retirements, burnout, negative experience, and exceed workload etc. (Dos Santos, 2016). Self-efficacy refers to the beliefs and judgements of whether people are capable and believe of conducting and completing their jobs (Bandura, 1982; Niyazi, 2013; Schunk, 1991; Yu et al., 2015; Zimmerman et al., 1992). The approach of self-efficacy has been
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used by many researchers to understand burnout and understand how self-efficacy influences the decision of turnover among teachers and their decision-making process about career development (Skaalvik & Skaalvik, 2017). Research studies (Dicke et al., 2015; Dos Santos, 2018; Farmer et al., 2016; Gremmen et al., 2016) have advocated that teachers who can arrange, handle, and overcome the problems and challenges of their classrooms and school situations present greater levels of persistence and resilience. Researchers (Bandura & Cervone, 1983, 1986; Bandura, 1982, 1989; Weiner & Jerome, 2016) suggested that there is a relationship between teachers’ self-efficacy and persistence and resilience. Self-efficacy has been described as an individual’s confidence in their ability to handle responsibilities effectively. Also, the concept of efficacy makes assumptions about how much effort should be performed (Kustati et al., 2020) and how long the individual can persist in their duties and responsibilities (Dos Santos, 2016; Dos Santos, 2017; Yu et al., 2015). In research on teachers’ education and professional development, self-efficacy may evaluate how they describe their classroom difficulties and how long they remain as teachers.

Teachers’ stresses highly influence the overall performance as the disasters at schools, school districts, and even the communities. Teachers with negative self-efficacy expressed a significant number of occupational burnouts as compared to teachers with stable and high-level self-efficacy (Chwalisz et al., 1992). Individuals’ beliefs and understanding about their performance have a greater influence on their self-efficacy in future exercises and conduct than their skills. In terms of self-efficacy, if student-teachers perform their assignments appropriately during their teacher training, they are likely to have greater self-confidence (Al-Wadi, 2020), which has an impact on their self-efficacy and effectiveness in the classrooms (Woolfolk-Hoy & Spero, 2005). To create positive teaching and learning environments, it is important to ensure that teachers benefit from positive teaching and learning environments during their teacher training. Researchers (Archambault et al., 2017; Hughes et al, 2008; Smith & Foley, 2015) indicated that if student-teachers have experienced a positive teaching and learning environment during their training, they are likely to use positive and engaged teaching methodologies and strategies. In contrast, if student-teachers have had negative and unsuccessful teaching and learning experiences and influences, this negativity may enter their future classrooms (Layne & Lipponen, 2016).

The Purpose of This Study

The purpose of the present study was to understand the relationship between self-efficacy and career decision of pre-service student-teachers at the secondary school setting. Research (Weiner & Jerome, 2016) has indicated that teaching professionals and staff are among the most isolated and depressed in contemporary society. Unlike other commercial career pathways, teachers and educational professionals need to handle various duties outside of their office hours, including different meetings, parents’ days, conferences, test papers, and assignments (Dos Santos, 2019a). Stress, occupational burnout, and turnover should be interconnected among the teachers’ networks. Although large numbers of qualified student-teachers complete their bachelor’s degree program with the initial license at faculties of education, lacking qualified teachers are still

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significant. In order to overcome the problems of high turnover, low-level engagement, and negative attitudes about the workplace, school administrators, professors, and policymakers need to understand the reasons why teachers decide to leave the profession (Hallinger & Heck, 2010; Hallinger et al., 2018; Kraft et al., 2016; Menken, 2015), particularly among the networks of pre-service student-teachers who did not even complete their first few years of paid teaching.

METHOD

The current research study employed the self-efficacy (Bandura 1982, 1989, 1993) to understand this social phenomenon among pre-service student-teachers in California, United States. In the field of self-efficacy among educators, including pre-service and in-service teachers and professionals, there has been a large number of quantitative research projects (De Neve et al., 2015). Therefore, a qualitative research report with interviews and focus group activities may provide fresh insight. While statistics tend to provide the overall views and group experience, qualitative research method with the direction of the phenomenological approach provides the individual experience with feedbacks and lived stories (Creswell, 2012; Merriam, 2009). Two questions guided the current research study,

What are the relationships between self-efficacy and career decision among pre-service student-teachers?

How do student-teachers describe their stress and career decision from their profession?

The participants consisted of 80 (N=80) pre-service student-teachers (45 female and 35 male) who are going to complete their qualifying training at one of the secondary schools. 70 of the participants were traditional-age students who completed the requirements with student-teaching internships, while 10 of the others were second-career teachers who used to work in another profession.

Three counties in California served as the research sites. The counties represented more than 40 secondary schools in total. The researcher sought permissions to conduct a research study and to recruit at least 65 pre-service student-teachers who are conducting their student-teacher internship requirement. The purposive sampling was employed to recruit the participants from the potential site administrators.

The researcher gained approval to conduct the research study at the school districts in writing directly to each school administrator. To collect wider information from different parts of California, the researcher collected data from different regions of California. These three counties were located in northern, Bay area, and southern California. Second, once the potential sites agreed with the study, the researcher sent an email of informed consent with the nature of the study to the administrators and asked the administrators forwarding the emails to their student-teachers. Third, after the procedure, a total of 80 qualified participants agreed with the study.
Data Collection and Analysis
The researcher collected data from three tools. First, the individual and semi-structured interviews (Merriam, 2009) were employed to collect data from the participants based on the interview protocol with the directions of self-efficacy and career decision problems for pre-service student-teachers. Second, after the researcher collected the data from each participant, the researcher invited each participant to the focus group activities (Creswell, 2012; Merriam, 2009) with 10 participants in each section. Each interview hosted 45-60 minutes while the focus group activities hosted 70-80 minutes. Finally, each was required to have a member checking interview which hosted 50-68 minutes to confirm the data.

Themes and directions that categorised during the data collection parts were independently analysed. The general inductive approach (Thomas, 2006) allowed the researcher to understand, explore, and categorise the sharing, lived stories, and understanding of the participants. First, the researcher followed the recommendations (Merriam, 2009) to narrow down the transcripts into the first-level themes by using the open-coding technique from the ideas of the grounded theory approach (Saldana, 2013). Scholars (Clandnin & Connelly, 2000; Creswell, 2012; Merriam, 2009; Thomas, 2006) advocated that researchers should read through the data several times and begin to categorise the directions and potential themes for reporting. As for the first-level themes and codings, the researcher was able to categorise 20 themes and 19 subthemes based on the data from the participants.

However, the general inductive approach (Thomas, 2006) recommended researchers should further narrow down the categories into focused categories and themes. Therefore, the researcher conducted the axial-coding technique to narrow the themes and subthemes into the second-level themes (Saldana, 2013). Merriam (2009) believed that the axial-coding allowed the researcher to categorise the themes and directions into a series and structured order. In short, after the employment and application of the axial-coding technique, the researcher eventually narrowed three themes and five subthemes for reporting.

Validity with Triangulation
To increase the validity of this study, the researcher employed individual interview, focus group, and member checking interview for confirmation (e.g. three tools). During the member checking interview, the researcher also asked some sharing from the participants for confirmation.

FINDINGS
In all of the interviews and focus group sessions, the participants were asked and answered the same questions regarding their understanding of the self-efficacy and career decision-making processes. Although all participants were enrolled in one of the American-based and regionally accredited universities in California, their sharing, lived stories, and setting were not the same. California is one of the largest states, with rich cultural diversity and a large population, so the student and even the teacher populations
in each region could be varied. Therefore, the rich data from three different regions may present California’s social problems more holistically. To answer two of the research questions in a structured order, the findings were categorised into three themes and five subthemes based on the interview and focus group transcripts. Table 1 outlines the themes and subthemes of this study. The following themes and subthemes are second-level themes generated by axial coding tools.

Table 1
Themes and subthemes

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<td>1. The Nature of Jobs in the Education and Teaching Professions</td>
<td>1. Sense of Isolation</td>
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<td>1.1 Sense of Isolation</td>
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The researcher was surprised to note that only 16 participants decided to continue their teaching career after completing the qualifying programs. In other words, only 20% of the participants stayed in the profession. With these findings, this study indicates social problems and provides recommendations on how to implement solutions.

The Nature of Jobs in The Education and Teaching Professionals

Each discussed why he or she decided to join the education and teaching professions in secondary school. The life experience, lived stories, ethnicity, educational background, working experience, and marital status of the participants varied. First, all expressed their motives for teaching, including but not limited to childhood experience, world-changing notions, preferring to work with children, and desiring stable employment. However, many expressed concern, distress and confusion after the student-teaching. In this category, the sharing mainly focused on the nature of jobs in the education and teaching professions and the related responsibilities. As a result, the researcher categorised this part into two subthemes, which were sense of isolation and self-directed responsibilities.

Sense of isolation

Teaching is an isolated profession in which teachers and education professionals tend to work independently without a significant number of group work and peer projects, so pre-service student-teachers may have difficulty adjusting from university classrooms to secondary school classrooms. Unlike their previous K-12 and university experiences, which are highly focused on collective activities and group work, work in most secondary schools requires a teacher’s individual arrangement. Although junior-level teachers may receive help from peer teachers, most expressed feeling a sense of isolation during their student-teaching internships.
First, 69 participants reported feeling a sense of isolation before, during, and after their student-teaching internships. These participants expressed concerns about managing classrooms alone. A participant said, “most of the high school and university lessons asked us to work as groupmates… the secondary school setting as a teacher…the individual and isolated senses…I somehow dislike the sense of loneliness…” (P2 English Language Arts, Female). The participant expressed the difference in working status between university classrooms as students and secondary school classrooms as teachers. Most were trained to work in groups instead of individually, but the requirements of secondary classrooms as teachers may defy their expectations from previous experiences. Several expressed similar ideas during the focus group activities, saying, “I was trained for group work… my teachers and parents told me that we should work together in society… but the student-teaching internship totally changed my expectations…” (P19 Math, Female). Similar opinions were shared saying, “sports activities… always learned, trained, and competed as a group… we were players and coaches… but in the high school setting… the learning expectations are not the same as usual…” (P20 Physical Education, Male). After his idea about teaching in physical education, three participants in the same focus group expressed similar ideas, saying, “on the textbook, our professors encourage us to establish group activities… but during the student-internship… my supervisor discouraged group activities due to the shortage of resources and even the students’ behaviour” (P27 Spanish, Female). Moreover, another said, “I was assigned to teach how to use the facial mask… I was prepared for a group activity… due to the students’ cultural background… we cannot connect interdisciplinary knowledge, such as health and physical education in one” (P25 Health, Female).

Second, 65 participants expressed a sense of isolation between teachers and upper management. Unlike other contracted and tenured teachers at the schools, student-teachers are not employees but trainees. Several participants expressed negative experiences of school-wide teachers’ meetings, saying, “we had a weekly meeting… but student-teachers do not have a seat and the agenda” (P65 English Language Arts, Female). A similar negative experience was shared said, “basically, each department only cares about their teachers… there are no inter-departmental discussions and networking… even within the same department, teachers do not chat” (P34, Spanish, Female).

50 participants expressed concerns about interdisciplinary cooperation within or outside their department. Many accepted the sense of isolation after their first few weeks. However, many expressed problems regarding discouragement of inter-departmental activities. Regarding departmental cooperation, a participant once tried to connect students studying at different difficulty levels, but the supervisors and head refused, “I wanted to connect the Spanish standard and advanced-level students together… but my supervisor indicated that each teacher should only handle their lesson… [and] try not to interrupt others” (P45, Spanish, Female). As for inter-departmental cooperation, another established a plan to connect his biology lessons with those of some mathematics teachers for Parents’ Day. However, none of the administrators and supervisors agreed with this plan, “I was surprised that each department works on their own… we cannot
connect and plan to work together due to the sense of individualism…my supervisor and I cannot release our classroom for other teachers due to the sense of ownership” (P63, Biology, Male).

**Self-directed responsibilities**

Not only departmental and inter-departmental cooperation caused student-teachers concerns, but the self-directed nature of the responsibilities of teachers. Although each belonged to a department, the department teachers did not provide peer-recommendations. More than 50 participants shared that only their supervisors were willing to provide recommendations. A participant shared a negative story about other teachers refusing to share teaching materials, saying, “once, I needed to use the periodic table…I came to three other chemistry teachers to ask…but none of them was willing to let me borrow it” (P4 Chemistry, Male).

Besides the sense of self-directed responsibilities between teachers, a group of participants expressed concerns about sharing teaching materials between classrooms. Several participants expressed how other teachers were not willing to share materials, a participant told how other teachers did not want to let him use the copy machine, saying, “some teachers just care about their own…but do not care about others’…even if I want to use the copy machine, other teachers just do not want to let me have my turn” (P17 Latin, Male). Another expressed an experience which made him quit the teaching career, saying, “my student did not bring a tool…I asked other teachers to borrow one…however, none of the five teachers was willing to share the tool with my student” (P23 Technical Education, Male).

In short, a group of participants expressed concerns about the sense of isolation, discouragement of cooperation, the sense of ownership, and confusion regarding group work that they had been trained for in their previous educational environment. Although a few expressed positive experiences of cooperation, most of the participants believed isolation made them upset about their teaching career.

**Administrative Style**

Aside from the nature of the education and teaching professions, the sense of isolation, and the lack of departmental cooperation, the participants also expressed concerns about administrative style. The participants expressed negative experiences of their internship due to their roles as non-employees. School administrations did not consider the student-teachers as part of them. Therefore, the voices and existences of these participants were neglected. In this category, the sharing mainly focused on the administrative style of the schools, administrators, and even the school staff. As a result, the researcher categorised this part into two subthemes, which were **lack of response from upper management**, and **lack of support from peers and school district**.

**Lack of response from upper management**

In this category, more than 70 participants reported that their school’s upper management, administrators, and fellow teachers did not consider them as a part of the school. Therefore, most of their opinions, feedback, and even attention were neglected.
Regardless of the previous background of the participants (i.e., traditional-age or second-career), most indicated that being part of the network and the school community was one of their key emotional, psychological, and self-esteem supports for their self-efficacy as teachers or student-teachers.

First, regarding the self-efficacy of the student-teachers, the disregarding of their suggestions by the upper management and administrators significantly decreased their self-efficacy. Limited access to school resources was reported by at least 50. For example, a participant expressed her concerns about accessing the students’ online learning platform, saying, “I tried to assist my supervisor in contributing and collecting the weekly assignments from the online platform…but I did not even have the rights to log in to the computer…not to mention the platform system” (P74 History, Female). Others experienced similar limitations. One explained that he did not have access to the library and could not bring students for a study period, saying, “I could not bring students to the library alone without my supervisors…but I could not even express my interest in bringing students to the library” (P56 Chinese, Female). Several also commented on the limited access to facilities, such as the restroom and teachers’ lounge, with one saying, “student-teachers are not allowed to use the teacher restroom…we can only use the regular students’ restroom…I feel I am not a part of the teachers’ community” (P44 Spanish, Female). Similar feelings were shared, said, “I was so surprised that student-teachers could not buy food from the teachers’ restaurant as we did not have the staff card” (P61 Physics, Male). The above expressions mainly focused on the limitation of access to facilities, which impacted the participants’ self-efficacy as part of the teachers’ community. Although from the perspective of leaders such minor arrangements may not impact overall performance, such disconnected planning for student-teachers may influence their self-efficacy, and more importantly, their burnout and career decisions.

Second, besides limited access to facilities, more than 40 expressed concerns about resource allocation. Most believed that although student-teachers are not full-time employees, leaders should have flexible arrangements for the sake of students’ learning. Most were concerned about the allocation of teaching materials and resources. A group indicated that student-teachers were not allowed to print exercises, even with the supervisor present, as one explained, “I had planned a lesson and in-class exercise which required me to print them out…but I had no right to print the exercises as I was not a part…” (P47 French, Female). A similar experience was shared said, “…I could not use the printers, white papers, and even the blackboard in the school…how can I understand how to become a teacher?” (P43 Political Science, Male). More than half experienced limitations to their ability to assist students in the classroom. Besides qualified teachers, paraprofessional educators and substitute teachers were also available. A group believed their status was even lower than the paraprofessional educators. A participant told his focus groupmates a story said, “substitute teachers provide exercises and direct students with guidelines…but student-teachers just couldn’t…who were we…this experience just made me…want to quit…” (P9 French, Male). Another participant expressed a negative experience due to abusive comments...
from other teachers, saying, “the school considered the paraprofessional educators and substituted teachers as parts of their school…but student-teachers were just visitors…although I was not covered by the union…I was not allowed to provide teaching to my students…I don’t know what I have learned from this experience…I decided to quit…” (P23 ESL, Female).

Although the experiences and stories were not the same, each experienced similar limitation at the personal and student levels, which impacted their self-efficacy as student-teachers and potential teachers. Some may argue the negative administrative styles featured in the participants’ stories should not be seen as standard. However, such negative comments were reported by at least two-thirds. Therefore, improvements should be considered as these are not uncommon events.

**Career Development**

**Uncertainty of promotion**

During early 2019, a group of teachers in California were on strike regarding issues with salary, class size, and the arrangement/ratio of high-need and special students. The data collection sections occurred after the strike. Therefore, a significant number of participants expressed concerns in these areas.

First, a group, including all male participants, expressed concerns about salary rates in the teaching profession. All male participants expressed fears that teachers’ salaries may not be enough to cover their family expenses and loan replacements. As one said, “teachers’ salary is lower than the average of all professions in the Bay Area…it is hard to survive in San Jose as I have two sons…I am thinking of switching back to the technological profession…” (P72 Computer Science, Male). Another participant said, “teaching is very meaningful…lifechanging, but I still need to pay for my family expenses…” (P46 Biology, Male).

Second, more than half indicated concerns about life-long investment and career advancement. Concerns about limited career advancement 1 were expressed by 11 participants, one explained, “it may take at least 20 years to be promoted as the head…in the industry, it may only take up to five years…” (P20 Computer Science, Male). Another expressed that teaching at colleges may be more appropriate, saying, “community colleges have tenure-track positions which are a life-long commitment…teachers may need to continue with contracts…I somehow want a stable job and career advancement” (P68 Physics, Male).

In short, although different participants shared various stories, most of the comments were about limitations on salary, promotion, and career advancement. It is worth noting that unfairness and limited resources for educators in California have been long-term problems for decades, and one of the biggest controversies in the field of education. Based on the opinions of pre-service student-teachers, the shortage of qualified teachers may not be solved within a short period.
SUMMARY OF FINDINGS
Many pre-service student-teachers indicated that they were not going to join the teaching after completing their training due to the nature of jobs, administrative style (upper management and support), and uncertain career development. The teachers tried their very best to perform their professionalism in qualifying training, supervisors, and students. However, both external and internal factors influenced their self-efficacy, which led to their career decisions as potential teachers.

In their interview and focus group responses, they had had strong self-efficacy as potential teachers before their student-teaching internships (during the coursework stage at university). During both data collection sessions, the interview protocol questions mainly focused on their understanding of and opinions about their personal, emotional, and psychological self-efficacy and sense of belonging in the teaching profession. They shared mostly positive ideas for motivating their potential classrooms and students with positive relationships with other peers (traditional-age students) and co-workers in their original fields (e.g. second career teacher). This exploration echoed most of the previous literature regarding how positive teaching and learning experiences can influence the self-efficacy of both in-service and pre-service teachers.

However, during further experience sharing, participants described how the experiences and the real-world situations of their student-teaching internships, particularly the unfairness and unmotivating working environment, completely changed their understanding of group work, support, and interactions, which they had learned from their previous educational and working experience. Some mentioned that the disregard for their roles and positions as student-teachers at their interned sites highly impacted their self-efficacy, which led to their career decisions. Although many participants liked the idea of educating the next generation, their lowered levels of self-efficacy prevented their career advancement and blocked their pathways in the field of teaching.

DISCUSSIONS
This research study contributes to the understanding of the relationship between self-efficacy and career decision of pre-service student-teachers at the secondary school setting (An et al., 2015; Betoret, 2009; DeNeve et al., 2015; Hallinger et al., 2018; Skaalvik & Skaalvik, 2017; Yu et al., 2015). The information from this research study may be employed to develop and reform the mentorship, supervision, and relationship among university, interned sites, and pre-service student-teachers (Brownlee et al., 2001). Although the research focused on the social problems of pre-service student-teachers, administrative styles, peer-relationships, and the contribution of resources also significantly influence the career problems of in-service teachers and school staff in the educational environments (Chang, 2009; Dos Santos, 2016; Maslach et al., 2001; Niyazi, 2013; Yu et al., 2015). Although the participants decided not to enter the teaching professions after graduation, readers should pay attention to the psychological and emotional status and health of their teachers and staff. The shortage of qualified teachers is significantly difficult for a number of schools internationally. How to
increase the sense of belonging and increase the retention rate would be important for related upper management.

A number of participants expressed the negative feeling and experience due to the employment status (i.e. interned pre-service student-teacher). Based on self-efficacy, individuals’ behaviours can be influenced by their beliefs and experiences. As Al-Wadi (2020) said, teachers believe in their experience based on their beliefs and self-efficacy. Therefore, without the appropriate resources, such as desk, stationaries, teachers’ log-books, access to teachers’ facilities, the sense of isolation and ignorance contributed negatively to pre-service student-teachers’ mindset which eventually impacted their self-efficacy and decision as teachers.

More importantly, the upper management should consider pre-service student-teachers as parts of their school communities (Niyazi, 2013). The managerial styles also impact the self-efficacy of student-teachers, which influenced their decision to be teachers. A previous study (Berestova et al., 2020) advocated that negative school styles can contribute negatively to their teachers’ professional development and morale. A number of schools and educational facilities are facing significant shortages of qualified teachers. If the pre-service student-teachers have established the sense of belonging as well as the positive self-efficacy of their interned schools, these potential qualified teachers may stay in their interned schools for career development. Therefore, upper management and administrators should consider the interned pre-service student-teachers as their employees instead of outsiders (Kustati et al., 2020).

A number of participants expressed that the departmental connections were weak due to the structural differences between subject matters, resources, and even numbers of teachers. To establish the self-efficacy (Bandura, 1982) of both pre-service and in-service teachers in the educational environment, the upper management and leadership should establish plans to engage teachers and staff from different departments for teaching and learning practices, training, or even school-based events, such as Parents’ Day. In the relationship between teachers’ self-efficacy and career decision, pre-service student-teachers reported that most of the problems were connected to the senses of belonging and the respectfulness from the schools and teachers (Bawaneh, et al., 2020). Although the voices and opinions from pre-service student-teachers may not be the same as in-service teachers and school staff, upper management and leadership may improve their administrative styles to increase the self-efficacy and decrease the burnout and turnover rate of their school communities (An et al., 2015; De Neve et al., 2015; Hallinger et al., 2018; Weißenrieder et al., 2015; Yu et al., 2015).

**CONCLUSION AND FUTURE RESEARCH**

Based on the results, it may be more important to identify a large number of school districts at the state-level or even national-level, rather than those living in targeted three counties in California. In fact, the data was collected in different parts of California. The voices and opinions of pre-service student-teachers may not be the same as the participants from different parts of the nations, such as participants from Guam, Puerto Rico, and New England regions. Therefore, further research studies may collect data
from participants in different regions of the United States (Betoret & Artiga, 2010; Niyazi, 2013).

Second, the research study did not collect the childhood stories and background from the participants. Dos Santos (2018) indicated that the childhood stories and background of both pre-service and in-service teachers might highly influence their decisions and attitudes of teaching and learning at school environments. Therefore, further studies may focus on the childhood stories and previous learning experience of participants (Clandinin and Connelly, 2000).

Third, the research may also collect opinions and feedback from in-service teachers, particularly junior-level teachers who recently completed their qualifying training. Junior-Level teachers and pre-service teachers may face similar problems and concerns at their new workplace. It is important to compare the data between these groups of participants for further reporting (Clandinin & Connelly, 2000; Weiner & Jerome, 2016).

Last but not least, further research may concern about the mentorship between supervisor and pre-service student-teachers at their interned sites. The mentorships and leadership from their supervisors serve as one of the most important models for pre-service teachers to follow. How the mentorship and results of the supervisions may influence the self-efficacy and career decision of pre-service student-teachers would be meaningful to understand (Betoret & Artiga, 2010; Brouwers & Tomic, 2000; Dos Santos, 2016; Niyazi, 2013).

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REFERENCES


