

Preparing Future Teachers in Indonesia: Motives of Science and Non-Science Student Teachers for Entering into Teacher Education Programs

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Abstract

The purpose of this current study was to examine the undocumented motives of the first-year science and non-science student teachers from seven different undergraduate teacher education programs in one public university, Jambi, Indonesia. Data were collected through a questionnaire and semi-structured interviews. A total of 593 completed questionnaires received from participants who enrolled in seven different undergraduate teacher education programs (biology, chemistry, economics English, history, mathematics, and physics education programs). Interview data were obtained from eighteen participants who were willing to be interviewed. The frequency of each statement was computed and expressed as percentage of its total score while interview data were audiotaped, transcribed verbatim, and carefully analysed. Our findings indicated that the first-year student teachers' interpretations of their motives for entering teacher education programs were quantitatively and qualitatively interwoven among altruistic, intrinsic, and extrinsic motives across participants. Policy implications are also discussed.

Keywords: Indonesian student teachers; Motives; Teacher education policy.



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1. Introduction

New senior high school graduates' interest in entering four years undergraduate teacher education programs has been increasing in Indonesia. For example, at Indonesian Open University in the 2016-2017 academic years, of 296.477 students, 200.490 (67.62%) were student teachers (Indonesian Open University, 2016). On one side, the increase in the number of senior high school graduates entering teacher education programs has indicated that teaching profession may not become the last choice of young people in Indonesia. On the other side, the rise in the number of student teachers studying at teacher education programs has raised a question: What motivates young people to enter four years undergraduate teacher education programs? The existing literature indicates that a wide range of motives (e.g., altruistic, intrinsic, and extrinsic motives) have attracted student teachers to enter teacher education or teaching profession (Fokkens-Bruinsma and Canrinus, 2012; Johnston *et al.*, 1999; Kılinc *et al.*, 2012; King, 1993; Kyriacou *et al.*, 1999; Kyriacou and Coulthard, 2000; Kyriacou *et al.*, 2003; Lai *et al.*, 2005; Lin *et al.*, 2012; Low *et al.*, 2011; Manuel and Hughes, 2006; Mukminin *et al.*, 2017b; Pop and Turner, 2009; Richardson and Watt, 2006; Schutz *et al.*, 2001; Yong, 1995); Such previous studies on student teachers' motives to enter teacher education indicate three major motives for entering or choosing teacher education including altruistic, intrinsic, or extrinsic motives.

In this study, altruistic motives are related to the views, principles, or the practices that teaching profession is a vital occupation that *produces the greatest benefit to others or the betterment of society* (Mukminin *et al.*, 2017a)

(Yong, 1995). Several examples of the altruistic motives include “it has a socially worthwhile job, I want to shape future of children, I love to work with children, and it is like to answer a calling”. Additionally, altruistic motives are often linked to the view that teaching has a socially valuable profession (Kyriacou and Coulthard, 2000; Mukminin *et al.*, 2017a). For example, the findings of several studies indicated that loving working with children or young people was one of the altruistic motives for person’s goal to enter teacher education to become a teacher (Fokkens-Bruinsma and Canrinus, 2012; Kilinc *et al.*, 2012; Kyriacou *et al.*, 1999; Lai *et al.*, 2005; Manuel and Hughes, 2006; Mukminin *et al.*, 2017a; Richardson and Watt, 2006; Yong, 1995).

With regards to the intrinsic motives, in this study, we focus on the views or reasons that people choose to be a teacher because of the aspects of the profession activity itself. Several examples of the intrinsic motives are ‘it offers opportunities for my academic development, I am inspired by good teachers (role models), I am interested in teaching activity, and to be a teacher fits my personality.’ The findings of several studies (Fokkens-Bruinsma and Canrinus, 2012; King, 1993; Kyriacou *et al.*, 1999; Low *et al.*, 2011; Manuel and Hughes, 2006; Mukminin *et al.*, 2017a; Yong, 1995) indicate that people’s motives to choose teaching profession are influenced by intrinsic motives. In other words, the motives to engage in teaching profession arise from within the characteristics of the teaching profession itself because it satisfies people who choose it.

Additionally, the last motives that become the focus of this study are the extrinsic motives which are related to the aspects of the job which are not inherent in the work itself (Kyriacou and Coulthard, 2000; Mukminin *et al.*, 2017b). To put it another way, people’s motives to choose teaching profession is done for the sake of some external outcome or for earning external rewards such as “being a teacher offers more time for family, being a teacher offers good salary, being a teacher offers long holidays, and I have no other choices. While the studies cited above provide insights into the motives of student teachers for choosing teacher education programs, many of these studies have not typically focused on the views of first-year student teachers. It would be more valuable to collect data from the first-year student teachers because their perspectives would not have been influenced by their teacher training experiences as in Indonesia all of student teachers who entered teacher education programs were tested by one time test nationally. This kind of one time-entrance test may not provide enough information or evidence on what motives have driven student teachers to select teacher education programs. Additionally, many of the studies cited above are from developed countries while studies on student teachers’ motives to enter teacher education programs in Indonesia are still rare except for (Mukminin *et al.*, 2017a).

However, Mukminin *et al.* (2017b) studies have only focused on Indonesian undergraduate English as foreign language (EFL) student teachers. Despite the fact that their studies provide readers with useful information on EFL student teachers’ motives to enter English teacher education programs, they might not be able to identify unique and individual motives of student teachers across programs, thus obscuring our understanding of their various motives. The purpose of this current study, within the altruistic, intrinsic, or extrinsic motives framework, was to examine the undocumented motives of the first-year science and non-science student teachers from seven different undergraduate teacher education programs in one public university, Jambi, Indonesia. To achieve the purpose of this study, the main guiding research question for this study was: What are the altruistic, intrinsic, and extrinsic motives influencing the first-year science and non-science student teachers to become a teacher by choosing a teacher education program at one public university in Jambi, Sumatra, Indonesia?

2. Methodology

2.1. Design of the Study

In this study, a quantitative method through a survey approach and a qualitative method through interviews were used in order to to examine the undocumented motives of the first-year science and non-science student teachers from seven different undergraduate teacher education programs in one public university, Jambi, Indonesia.

2.2. Participants of the Study

In this mixed methods study, it was planned to recruit all of the first-year science and non-science student teachers (ST) at the research site. An invitation letter was distributed to the first-year science and non-science student teachers from seven undergraduate teacher education programs (English, Mathematics, Physics, Chemistry, Home Economics, History, and Biology). However, the total participants who were willing to participate in this study were 593 the first-year science and non-science student teachers from seven programs consisting of 484 females and 109 males. Of 484 females, ninety-eight student teachers majored in biology education, seventy-three majored in chemistry education, forty-six majored in home economics education, eighty-four majored in math education, thirty-two majored in history education, sixty-three majored in physics education, and eighty-eight majored in English education. Additionally, of 109 male student teachers, seventeen of them majored in Biology education, eleven majored in Chemistry education, thirteen majored in home economics education, ten majored in history education, eighteen majored in Math education, fourteen majored in physics education, and twenty-six majored in English education. The age of student teacher ranged from 17-20 years old.

2.3. Data Collection and Analysis

To those who agreed to participate in this study, an informed consent form stating their willingness to take part in this study was given to the participants. After having their informed consent form, a questionnaire which was designed with two parts was distributed. Part 1 requested the participant’s demographic information (year, age, and gender) of the first-year student teachers. Part 2 listed twelve specific motives that was developed from the literature

review and had been used by one study in Indonesia (Mukminin *et al.*, 2017a). The twelve specific motives consisted of four altruistic motives (I love to work with children, I want to shape future of children, it has a socially worthwhile job, and it is like to answer a calling), four intrinsic motives (I am inspired by good teachers (role models), I am interested in teaching activity, to be a teacher fits my personality, and it offers opportunities for my academic development), and four extrinsic motives (being a teacher offers good salary, I have no other choice, being a teacher offers more time for family, and being a teacher offers long holidays).

In this study, the questionnaire was constructed in the form of closed-ended statements of the twelve specific motives by providing preset response options for the participants. *Strongly Agree* (SA), *Agree* (A), *Disagree* (D), and *Strongly Disagree* (SD) were used. However, we found some participants providing *No Answer* (NA) in their responses to the statements in the questionnaire. To obtain the interview data, on the demographic background form, participants were provided with a statement if they were willing or not to take part in the interview. Based on their statements, the participants who agreed to be interviewed were contacted. Eighteen participants were willing to be interviewed, consisting of four participants from English education, three from Mathematics education, three from Physics education, two from Chemistry education, two from Home Economics education, two from History education, and two from Biology education.

Guided by an interview protocol related to altruistic, intrinsic, and extrinsic motives, semi-structured interviews were used to interview all participants. For the ethical considerations and to protect the rights of human participants, the names of participants, places, and research site were masked through the use of pseudonyms. The interviews for each participant lasted between 20 and 35 minutes. Each student teacher was interviewed two times. The reason to do this was to make sure that what every participant shared was consistent between the first and second interview.

2.4. Validity and Trustworthiness

To address the validity of the questionnaire, although the twelve specific motives in the questionnaire had been used in previous studies including one study from Indonesia (Mukminin *et al.*, 2017a) the twelve specific motives consisted of four altruistic, four intrinsic, and four extrinsic motives were piloted to other first-year student teachers who were not part of the sample. “A think – aloud technique” Johnson and Christensen (2009) was used. Eleven student teachers who were not part of the sample were willing to participate in the pilot. Through the think – aloud technique, the participants were requested to articulate their thoughts about the questionnaire while the researchers might make a note about their thoughts Johnson and Christensen (2009). Through this technique, it could measure if the non-sample participants obtained the same understanding about the twelve specific motives with the researchers. For example, one participant told us that it was needed to provide Indonesian translation so that the real participants understood the statements. Also another participant said that it was good to have four preset response options as it would be easier to make an answer. The questionnaire was also consulted with the three experts who had doctoral degrees in education regarding the questionnaires before we distributed them.

The 593 completed questionnaires were analyzed through analyzing each student teacher’s response in terms of altruistic, intrinsic, and extrinsic motives; the frequency of each statement was computed and expressed as percentage of its total score. For the interview data, after the texts were transcribed from the audiotaped data, they were carefully analysed and classified into altruistic, intrinsic, and extrinsic motives. First, it was particularly followed what Miles and Huberman (1994) called “within case analysis” and “cross-case analysis.” In terms of “within case analysis” Miles and Huberman (1994), once the first participant was interviewed, the data were straight transcribed verbatim and cautiously examined and classified the data into the three altruistic, intrinsic, and extrinsic motives. This process was continued until the last participant. Second, each researcher read each participant’s transcripts line-by-line individually, marked pertinent chunks of accounts, put pertinent chunks of accounts into altruistic, intrinsic, and extrinsic motives that had been created. Third, what Miles and Huberman (1994) called “cross-case analysis” was done. All transcripts across eighteen first-year student teachers were reanalyzed and compared in order to find the frequency of statements among participants for each general theme (altruistic, intrinsic, and extrinsic motives) and for each specific sub-theme (e.g., I love to work with children or I have no choice).

To deal with the “trustworthiness” (Lincoln and Guba, 1985) as cited in Mukminin (2012) of the results and interpretations, member checking (Creswell, 2007; Johnson and Christensen, 2009; Merriam, 1998) (Mukminin and McMahon, 2013) was used, the data were checked not only with the 18 first-year student teachers but also with co-researchers that served as member checking. The data and results were returned to each student teacher. This was chosen to ensure that each first-year student teacher consented with the data that were used from them. All first-year student teachers allowed researchers to use the data in the study.

3. Results

Evidence from this current study indicated that the first-year science and non-science student teachers’ interpretations and explanations of their motives for entering teacher education programs were quantitatively and qualitatively interwoven among altruistic, intrinsic, and extrinsic motives across participants of seven different undergraduate teacher education programs.

3.1. Altruistic Motives

Four altruistic motives were used (I love to work with children, I want to shape future of children, it has a socially worthwhile job, and it is like to answer a calling) as presented in the Table 1.

Table-1. The first-year student teachers' altruistic motives (N=593)

Altruistic Motives	SA		A		D		SD		NA	
	%	f	%	F	%	F	%	f	%	f
I want to shape future of children	40.6	241	52.1	309	2.2	13	0.2	1	4.9	29
It has a socially worthwhile job	43.2	256	48.9	290	2.2	13	0.5	3	5.2	31
I love to work with children	19.7	117	60.2	357	17.4	103	1.5	9	1.18	7
It is like to answer a calling	15	89	51.3	304	25.8	153	2.4	14	5.5	33

Based on the data in Table 1, the first-year science and non-science student teachers' responses to the motive of "I love to work with children" indicated that the percentage of the participants who answered "strongly agree" (117 participants, 19.7%) and "agree" (357 participants, 60.2%) was 79.9% out of 593 participants. It was considerably higher than the percentage of the participants who answered "disagree" (103 participants, 17.4%), "strongly disagree" (9 participants, 1.5%). It is also interesting to note that seven participants (1.18%) had "no answer." Additionally, our findings indicated that regarding with the statement of "I want to shape future of children," the percentage of the students who answered, "strongly agree" (241 participants, 40.6%) and "agree" (309 participants, 52.1%) was 92.7% out of 593 participants. It was significantly greater than that of the participants who answered "disagree" (13 participants, 2.2%), "strongly disagree" (1 participant, 0.2%), and "no answer" (29 participants, 4.9%).

For the statement of "It has a socially worthwhile job," 256 participants (43.2%) chose "strongly agree" and 290 participants (49.9%) reported "agree" while 13 participants (2.2%) reported "disagree," 3 participants (0.5%) chose "strongly disagree, and" 31 participants (5.2%) reported "no answer." The last motive that altruistically attracted the first-year student teachers from seven different undergraduate teacher education programs to go into a teacher education program was "It is like to answer a calling." 15% (89) of 593 first-year student teachers strongly agreed, 51.3% (304) of them agreed, 25.8% disagreed, and 2.4% were strongly disagreed, and 5.5% of them reported "no answer" with the statement.

Additionally, the interview data were grouped into four sub-themes: (1) "I want to shape future of children," (2) "it has a socially worthwhile job," (3) "I love to work with children," (4) "It is like to answer a calling." For "I want to shape future of children," the interview data pointed out that eighteen first-year student teachers across majors who chose teacher education program reported that they were motivated in diverse ways related to shaping a future of young people. All participants reported that they entered a teacher education program because they wanted a future occupation enabling them to forming the future generation of their country through their fields of study. For example, one student who chose English teacher education program said, "Teaching is my destiny to develop future generation in learning English" (ST3) while one student who was accepted in Math teacher education program said, "I think math is not difficult and I want to help future kids to learn it" (ST5). It is also interesting to note that for the first-year physic and chemistry student teachers, their motives to choose teacher education program were because they wanted children to love science. For example, one physic student reported, "Through becoming a science teacher, I can help younger people to love science" (ST9) while one chemistry student added, "I will do my best on how to shape my students' interest in learning Chemistry as some kids think it is a scary subject" (ST12). Overall, in terms of "I want to shape future of children," both the questionnaire and interview findings revealed that the first-year student teachers in this study testified that they chose teacher education programs because they want to have an opportunity for helping children to learn which is useful for future.

Next, for "It has a socially worthwhile job," the questionnaire findings indicated that it ranked second (of 593 participants, 256 participants or 43.2% chose strongly agree and 290 participants or 49.9% reported agree). A closer look at the interview data, all participants regardless of their majors and gender reported that they knew that becoming a teacher would do many social works in terms of educating and teaching. They expressed that one of their motives to choose a teacher education program was that they wanted to contribute to their society. For example, the first-year English student teacher reported that he was encouraged to choose English education program because in his village English lesson was rare and he wanted to make a difference. He said, "Not all Indonesians speak English, especially in my village, I want to help them (ST4)" while other English student teacher reflected, "Choosing English education is because I want to help my society to learn it (ST3)." Additionally, one math student teacher told us that he realized that his future profession would be more social. It means that in the Indonesian context, teaching profession in some areas might not be paid as there are still many poor areas which need more teachers but they are not able to pay teachers. He (ST5) reflected, "To be a teacher means to be a social person...It is my goal to choose math program...sharing my knowledge with people whenever they need." Our findings also revealed that several participants were motivated by the fact that Indonesia has lack of teachers in rural and remote areas. For instance, one physic student teacher (ST10) described his motive in the following way, "We have lack of Physics teachers in remote areas, I want to help them." One Chemistry student teacher (ST11) added, "Indonesia has less Chemistry teachers...I want to contribute to my society."

Another interesting finding related to "I love to work with children," all participants regardless of their majors indicated that they liked working with children and they wanted to help them have better education through teaching their majors for them. One math student teacher (ST6) noted that her motive to major in Math education was to help young people as Math was not easy for them, "I chose math education program as I know math is not easy and I love working with children to help them learn math." A closer look at the interview data indicated that the first-year student teachers who majored in science loved to work with children in order to help children understand science such as Math, Physics, Chemistry, and Biology. For example, one Physic student teacher (ST8) reflected, "I want to

teach Physics and make it fun by working together with children.” One Biology student teacher (ST17) added, “I want to help young people to love science or biology.”

For “It is like to answer a calling,” out of eighteen first-year student teachers who were interviewed, nine participants shared their feelings and thoughts on this motive. They declared similar feelings on the motive even though they articulated their thoughts in a different way. For example, one English student teacher (ST4) reported, “Coming from a rural area, I feel we need more English teachers and I think I need to do that to help young people to learn it.” His motive to go into English teacher education program was to make a difference for children in his area to obtain knowledge and skill for their future.. For our student teachers in this study, entering teacher education programs was driven by the fact that their programs or majors was not mainly chosen by senior high school graduates although it is an important major. One student teacher (ST15) majoring in History education expressed, “History is like an ignored subject and not many young people want to register to the program or want to be a history teacher. Then, you know I take it.” Another History education student teacher (ST16) added that although her parents disliked her choice, she decided to take History education as her major. She expressed, “My parents asked me, “Why history? No future.” But, you know their words have become my motive to choose history education program.”

3.2. Intrinsic Motives

For the intrinsic motives, in this study, four kinds of motives were included, namely ‘it offers opportunities for my academic development, I am inspired by good teachers (role models), I am interested in teaching activity, and to be a teacher fits my personality.

Table-2. The first-year student teachers’ intrinsic motives (N=593)

Intrinsic Motives	SA		A		D		SD		NA		f
	%	f	%	f	%	f	%	f	%		
To be a teacher fits my personality	14.2	84	67.6	401	16.3	97	1.8	11			
It offers opportunities for my academic development	20	119	56.9	337	23.1	137					
I am inspired by good teachers (role models)	24.8	147	47.2	280	18,5	110	0.67	4	8.76	52	
I am interested in teaching activity	21.4	127	36.2	215	41.6	247	0.67	4			

From the summary of responses presented in Table 2, under the intrinsic category, the first-year student teachers’ responses to the motive of “To be a teacher fits my personality” indicated that the percentage of the participants who answered “strongly agree” (14.2% or 84 participants) and “agree” (67,6% or 401 participants) was 81.8% out of 593 participants. It was much higher than the percentage of the participants who chose “disagree” (16.3% or 97 participants) and reported “strongly disagree” (1.8% or 11 participants). Also, for the motive of “It offers opportunities for my academic development,” the results of analysis indicated that 20% (119) of participants strongly agreed and 56.9% (337) of them agreed with the statement while 23.1% (137) of 593 participants disagreed with it.

A closer observation at the questionnaire data indicated that 24.8% of participants strongly agreed and 47.2% of them agreed with the motive of “I am inspired by good teachers (role models)” while 18.5% of participants reported “disagree,” 0.67% of them chose “strongly disagree,” and 8.76% of them had “no answer.” It is also interesting to note that for the motive of “I am interested in teaching activity,” the first-year student teachers’ responses indicated that 41.6% of them disagreed and 0.67% of them strongly disagreed with the motive while 21.4% of them strongly agreed and 36.2% agreed that they came to teacher education programs because they were interested in teaching.

Similar to the altruistic category, within the intrinsic category, for the qualitative findings, we grouped the transcripts of the interviews from eighteen student teachers into four sub-themes. The first sub-theme portrayed the first-year student teachers’ responses to the motive of “To be a teacher fits my personality.” The second sub-theme illustrated their responses to the motive, “It offers opportunities for my academic development.” The next sub-theme explained their statements related to the motive of “I am inspired by good teachers (role models).” The final sub-theme was related to the first-year student teachers’ responses to the motive of “I am interested in teaching activity.”

It is interesting to note related to qualitative evidence that there were an enormous variety of expressions expressed within the sample of the first-year student teachers. When we asked participants whether or not they chose their programs because it fits their personality (the sub-theme of “To be a teacher fits my personality”), all participants irrespective of their majors reported becoming a teacher was a profession fitting their characters. For example, ST1 who majored in English education reflected, “I chose teacher education because I believe it fits my qualities.” Such as an expression indicated that her choice might not be wrong for her future. When we interviewed her, she confidently expressed that she was very interested in becoming an English teacher. She wanted to do good things for next generation through teaching English. To explore further the extent to which the first-year student teachers’ views of motive to choose teacher education program are associated with their opportunities for academic development in future, participants were asked questions relating to whether or not they chose their programs because they knew “It offers opportunities for my academic development.” All participants during the interview expressed that being a teacher would help them develop their knowledge and skill which would facilitate them in teaching. All interviewees confirmed, for example,

Government will always provide training for teachers and it is good for improving my knowledge and skills, particularly English training. (ST4 majoring in English education)

I chose teacher education because I widen my knowledge in Math. (ST5 majoring in Math education)

The qualitative findings indicated that the first-year student teachers chose teacher education programs because they would be able to advance their academic development. Related to the first-year student teachers' motive of "I am inspired by good teachers (role models)," although they were still new student teachers and they expressed their thoughts in a different way, the interview data that we analyzed revealed that intrinsically their decision to choose a teacher education program because they were also influenced by their elementary, junior, and senior high school teachers' styles or ways of teaching. They thought that they wanted to the same thing by becoming a teacher. The following examples of responses to the question about the role models that influenced their decision to choose a teacher education program,

The way my teachers taught in the class was amazing. He inspired me. (ST7 majoring in Physic education)

I like my teachers from elementary to senior high school, they cared students and I want to get back to my school after graduating. (ST11 majoring in Chemistry education)

For the motive of "I am interested in teaching activity," a closer look at the interview data indicated that participants' interest in teaching activity was the motive leading them to choose teacher education program. Regardless of their majors, all interviewees reported that their decision-making in choosing a teacher education program was driven by the belief that teacher education program would assist them in facing challenges in teaching. Although they liked being a teacher, they realized that it would be a tough and challenging profession, as they would face many kinds of students' behaviors. With regard to this motive, our participants told us, for example, ST7 said, "Teaching activities are not easy. They are hard, but I love my future profession. It is a kind of a challenging job" while ST9 added, "Teaching is tough, I think. I will meet many kinds of behaviors, but I will like it as I like to conquer something." Additionally, for ST16 majoring in History education reflected, "I am interested in being a teacher and I know it is not easy to teach. I will learn a lot during my undergraduate on how to teach." Although she would learn a lot how to teach and educate, she knew that on one side, her profession would be interesting; on the other side, it would be challenging. Evidence from this study indicated that across majors, the first-year student teachers held views that although they were strongly interested in teaching activities; 41,6 % were not interested in teaching activities. They understood that teaching was not an easy profession.

3.3. Extrinsic Motives

In our study, we included the extrinsic motives such as being a teacher offers more time for family, being a teacher offers good salary, being a teacher offers long holidays, and I have no other choices as presented in Table 3.

Table-3. The first-year student teachers' extrinsic motives (N=593)

Extrinsic Motives	SA		A		D		SD		NA	
	%	f	%	f	%	f	%	f	%	f
Being a teacher offers good salary	18.2	108	53.8	319	22	131	1,8	11	4	24
Being a teacher offers more time for family	27.1	161	44.2	262	21.1	125	2.2	13	5.4	32
I have no other choices	10.3	61	21.7	129	42.7	253	21.2	126	4	24
Being a teacher offers long holidays	16.3	97	34.4	204	36.1	214	6.5	39	6.5	39

The results of analysis revealed that the extrinsic motive of "Being a teacher offers good salary" became the dominant percentage among other extrinsic motives. 18.2% out of 593 participants answered, "strongly agree" and 53.8% of them reported 'agree" with the motive while 22% of them disagreed, 1.8% of them strongly disagreed, and 4% of them had no answer regarding the motive. The combination of the number and percentage of participants who reported, "strongly agree" and "agree" with the extrinsic motive of "Being a teacher offers good salary" positioned this motive in the first rank (71.6%, 427 participants). The second rank (71.3%, 423) was "Being a teacher offers more time for family" indicating that 161 participants (27.1%) chose "strongly agree" and 262 participants (44.2%) reported "agree."

The findings of this study also indicated that "I have no other choices" ranked third. 42.7% of participants disagreed and 21.2% of them strongly disagreed with this motive while 10.3% strongly agreed, 21.7% agreed, and 4% of them had no answer regarding the motive. The last rank was the motive of "Being a teacher offers long holidays." The percentage of the participants who answered, "strongly agree" (16.3%) and "agree" (34.4%) was 50.9% out of 593 participants. It was not much higher than that of the participants who answered "disagree" (36.1%), "strongly disagree" (6.5%), and "no answer" (6.5%).

In terms of the extrinsic category, for the qualitative results, we grouped the transcripts of the interviews from eighteen student teachers into four sub-themes. We organized each first-year student teacher's response to each sub-theme and the total number of the first-year student teachers (ST) who gave responses within each sub-theme. The first sub-theme represented their responses to the motive of "Being a teacher offers good salary." The second sub-theme illustrated their responses to "Being a teacher offers more time for family." The third sub-theme explained their statements related to "I have no other choices." The final sub-theme was related to the first-year student teachers' responses to the motive of "Being a teacher offers long holidays."

Based on the summary of qualitative responses of 18 first-year student teachers who were interviewed, all reported that their decision-making to choose teacher education program was extrinsically driven by four sub-themes

of motives. Teaching profession was highly regarded by 18 first-year student teachers in this study. In spite of their majors and different ways of expressing their motives, all of them agreed that they were influenced by the motive of "Being a teacher offers good salary." Although some of them said that during the interviews they did not think about salary, they agreed that teachers deserved a good salary. For example, ST1 majoring in English education reflected, "*Teacher salary is not that high Indonesia, but it is not the only motive,*" suggesting that she knew salary was not high in Indonesia, it might be enough to live in Indonesia. Another student teacher, ST10 majoring in Physics education, reported salary was important for every profession, but his journey was still long. He did not want to talk about it yet. He said, "*For now, I do not focus on talking about salary though it is important.*"

The second sub-theme ("Being a teacher offers more time for family") illustrated 18 first-year student teachers' responses to whether or not they chose teacher education program because they realized that became a teacher might offer them to have more time for their family. Surprisingly in spite of their majors and gender, their answers were very interesting because participants uttered that "Being a teacher offers more time for family" was their extrinsic motive to begin on a journey to become a teacher. For example, one participant, ST9 majoring in Physics education stated, "*Being a teacher, we know the schedule at school and we can arrange time for family*" while ST4 majoring in English education added, "*My motive to choose my program is because I know that teacher profession will give more time for taking care of my future family.*" So, although they were still in the first year, participants in this study already knew that if they became a teacher, they would have a flexible schedule, facilitating them to provide time for their beloved ones at home.

Next, our qualitative evidence indicated interesting and important responses from 18 first-year student teachers related to the third sub-theme of "I have no other choices." When we asked them whether their selected programs had been planned before, all of them (we interviewed them in different places) reported that teacher education was their first preference and they had planned when they were in senior high school. ST17 majoring in Biology education, commented, "*When I was in secondary school, I decided to be a biology teacher although my parents disagreed with my decision.*" She had planned to choose Biology education even though she knew her parents objected to her choice. Another interesting story was from ST16 who looked sad when sharing her feeling, she said, "*My parents asked me, 'Why history? No future.' But, you know their words have become my motive to choose history education program.*" She realized that her parents disliked her choice, but she wanted to prove it. Their stories evidenced that they had a high motivation to be a teacher. For the last sub-theme ("Being a teacher offers long holidays") in extrinsic category, although the percentage of the participants who answered "strongly agree" (16.3%) and "agree" (34.4%) was 50.9% out of 593 participants in the questionnaire response, the qualitative data evidenced that one of the motives of 18 first-year student teachers to embark their journey to become a teacher by choosing teacher education programs was because school breaks would be one of the advantages. Some of the participants expressed their motive explicitly and some did implicitly.

4. Discussion

The rise in the number of senior high school graduates entering teacher education programs in Indonesia has raised a question: What has driven this population to enter four years undergraduate teacher education programs? The existing works indicate three major motives that have driven people for entering or choosing teacher education to be a teacher including altruistic, intrinsic, or extrinsic motives (Fokkens-Bruinsma and Canrinus, 2012; Kilinc *et al.*, 2012; Kyriacou *et al.*, 2003; Lai *et al.*, 2005; Lin *et al.*, 2012; Low *et al.*, 2011; Manuel and Hughes, 2006; Mukminin *et al.*, 2017b). However, it is surprising that few prior studies have documented student teachers' motives and explanations to become a teacher by entering teacher education programs in Indonesia except for Mukminin *et al.* (2017a) and Mukminin *et al.* (2017b) whose studies focused on year 2, 3, and 4 EFL student teachers' motives to become a teacher through entering an English teacher education program. Research on how Indonesian first-year student teachers across majors consider teacher education programs among other program choices is understudied. The purpose of this current study was to document undocumented motives of the first-year student teachers from seven different undergraduate teacher education programs in one public university, Jambi, Indonesia. Our evidence shed light on our understanding of the Indonesian first-year student teachers' motives to choose teacher education programs in order to be the next generation of teacher. Yet, it is not easy to conclude which motives have played a part in a greater role than others as all motives appeared to be interwoven quantitatively and qualitatively across participants. Overall, evidence from this study revealed that first-year student teachers' interpretations and explanations of their motives for choosing teacher education programs varied, however the types of motives on their choices were comparable across majors. Particularly, the findings of in-depth interviews with selected student teachers across majors confirmed and extended the questionnaire findings in our study.

With respect to altruistic motives, the combination of the number and percentage of the first-year student teachers who reported "strongly agree" and "agree" indicated that the motive of "I want to shape future of children" ranked first (92.7%) as 241 participants (40.6%) answered "strongly agree" and 309 participants (52.1%) reported "agree." This finding concurs with what earlier studies (Kilinc *et al.*, 2012; Lin *et al.*, 2012; Mukminin *et al.*, 2017a) found that shaping future of children received a high percentage of participants. The interview data pointed out that eighteen first-year student teachers across majors reported that entering a teacher education program was driven by their motive to have a future occupation enabling them to forming the future generation of their country through their fields of study as presented in Table 3. Next, the second rank (92.15%) was "It has a socially worthwhile job" indicating that 256 participants (43.2%) chose "strongly agree" and 290 participants (49.9%) reported "agree." Our finding supports the findings of previous studies (Kilinc *et al.*, 2012; Kyriacou *et al.*, 2003; Lin *et al.*, 2012; Mukminin *et al.*, 2017a); that found the most strongly reported motive for choosing teaching as a

career was making contributions to their society. Additionally, the findings of in-depth interviews with eighteen selected student teachers across majors confirmed our questionnaire findings.

Additionally, the third rank (79.9%) was “I love to work with children” indicating that 117 participants (19.7%) answered “strongly agree” and 357 participants (60.2%) answered “agree.” This finding is consistent with the findings of earlier studies (Johnston *et al.*, 1999; Kılmc *et al.*, 2012; King, 1993; Kyriacou *et al.*, 1999; Lai *et al.*, 2005; Manuel and Hughes, 2006; Mukminin *et al.*, 2017a; Richardson and Watt, 2006; Schutz *et al.*, 2001; Yong, 1995) revealing that one of the major initial attractions for choosing teaching profession was the opportunity to work with young people. Our interview findings also revealed that loving to work with children has driven our participants to choose teacher education programs. Our finding is in line with what Mukminin *et al.* (2017b) found that loving to work with children was one of the major motives attracting student teachers to embark a journey to become a teacher by choosing teacher education programs. The last rank (66.3%) was the motive of “It is like to answer a calling” in which 89 participants (15%) chose “strongly agree” and 304 participants (51.3%) “agreed” with the motive. However, out of eighteen first-year student teachers who were interviewed, nine participants were willing to share their feelings and thoughts on this motive. The nine student teachers regardless of their majors felt that the education of future generation was part of their responsibility.

Furthermore, in terms of intrinsic motives, the questionnaire and interview findings indicated that the first-year student teachers’ decision-making in choosing teacher education programs across majors was likely to be influenced by four intrinsic considerations. The questionnaire findings evidenced that the mix of the number and the percentage of participants who rated “strongly agree” and “agree” to the intrinsic motives indicated that “To be a teacher fits my personality” ranked first (81.8%). The questionnaire data were not contrary with our interview data in that eighteen participants reported that “To be a teacher fits my personality” was one of the influential motives among them across majors. For example, ST17 who majored in Biology education said, “Although my parents disagreed with my decision...I like teaching, it fits me.” She did not regret with her choice because she felt teaching profession fit her qualities although her parents disagreed with her choice. The findings suggested that participants in this study intrinsically knew their potential to be a teacher and becoming a teacher was an occupation corresponding to their personalities. Such an assessment is very imperative if they want to become the next generation of teachers. Next, the motive of “It offers opportunities for my academic development” ranked second (76.8%). This finding was also supported by our interview findings. We found that although they expressed their feelings in a different way, eighteen participants reported that from the earliest day they had realized teaching profession would help them to develop their academic potentials. This finding is consistent with the findings of earlier works revealing opportunities for academic development as one of the influential motives for entering teacher education programs or teaching profession (Lai *et al.*, 2005; Mukminin *et al.*, 2017a; Yong, 1995).

Moreover, a closer look at the questionnaire data showed that “I am inspired by good teachers (role models)” ranked third (72%). This finding was supported by the results of interviews with eighteen participants who reported that intrinsically their decision to choose a teacher education program because they were also influenced by their elementary, junior, and senior high school teachers’ styles or ways of teaching. They thought that they wanted to the same thing by becoming a teacher. Similarly, the findings of previous studies Mukminin *et al.* (2017a) found that previous role models gave a big influence to student teachers’ decision-making to pursue teaching credentials in a teacher education program. The last main intrinsic motive influencing student teachers to enter teacher education programs was “I am interested in teaching activity” which ranked fourth (57.6%). It is also interesting to note that our interview data revealed that regardless of their majors and gender, all student teachers were interested in teaching activities although they realized that it would be a tough and challenging profession, as they would face many kinds of students’ behaviors. However, they believed that teacher education program would assist them in facing challenges in teaching. Our findings are supportive the previous studies findings done by King (1993), Kyriacou *et al.* (1999), Lortie (1975), Mukminin *et al.* (2017a), and Yong (1995).

Within the extrinsic category, the mix of the number and percentage of participants who rated “strongly agree” and “agree” to each motive indicated that the first highest rated motive for choosing teacher education programs was “Being a teacher offers good salary” (71.6%, 427 participants) indicating 18.2% (108) participants answered “strongly agree” and 53.8% (319) ‘agree’. The questionnaire data were also supportive by our interview data although some of them said that during the interviews they did not think about salary, they agreed that teachers deserved a good salary. The findings of previous works were also mixed. Mukminin *et al.* (2017a) found that “56.9% of participants to enter a teacher education program was “Being a teacher offers good salary (ranked second).” However, 36.5% of them were not sure that salary was the main motive while 5.5% of them disagreed that salary was the main motive for them to start on a journey to become a teacher.” Also, King (1993), Kyriacou *et al.* (1999), and Lortie (1975) found that people were attracted by such as good salary while Kılmc *et al.* (2012) revealed that student teachers had significantly lower perceptions of teaching as high demand or salary. Additionally, (Mukminin *et al.*, 2017a), in their qualitative study found that EFL student teachers realized that “teachers’ salary in Indonesia was low, but they felt that they had moral responsibilities for helping their society through education.”

We also found that “Being a teacher offers more time for family” received a high percentage of participants (71.3%, 423 participants) indicating that 161 participants (27.1%) chose “strongly agree” and 262 participants (44.2%) reported “agree.” Our questionnaire findings were also confirmed by the findings of in-depth interview data with the eighteen student teachers across majors. Our finding is consistent with what (Mukminin *et al.*, 2017a) found that “64.6% of them agreed with the statement, indicating that they believed that becoming a teacher would help them stay close with their family as they would have more time.” However, what we found is different from what Fokkens-Bruinsma and Canrinus (2012) found that time for family was one of the least important factors to be

a teacher. The findings of this study also indicated that “I have no other choices” ranked third. 42.7% of participants disagreed and 21.2% of them strongly disagreed with the statement. Teacher education was the first preference of the first-year student teachers in this study. In other words, 64% of 593 student teachers entered a teacher education program because they planned to be a teacher. Lastly, the motive of “Being a teacher offers long holidays” indicated that 16.3% of participants answered “strongly agree” and 34.4% rated “agree”. It was not much higher than that of the participants who answered “disagree” (36.1%), “strongly disagree” (6.5%), and “no answer” (6.5%). However, in our qualitative data, all first-year student teachers reported that school breaks was one of the influential motives to embark their journey to become a teacher by choosing teacher education programs.

5. Conclusion and Policy Implications for Teacher Education

The success in improving the quality of education in Indonesia will very much depend on the ability of teacher education programs to recruit qualified and motivated school graduates. The purpose of this current study was to examine the undocumented motives of the first-year science and non-science student teachers from seven different undergraduate teacher education programs in one public university, Jambi, Indonesia. Based on our findings, it could be concluded that the first-year science and non-science student teachers were quantitatively attracted to teacher education programs by the altruistic motives (I want to shape future of children - 92.7%, It has a socially worthwhile job - 92.15%, I love to work with children - 79.9%, and it is like to answer a calling 66.3%), intrinsic motives (To be a teacher fits my personality - 81.8%, It offers opportunities for my academic development - 76.8%, I am inspired by good teachers - 72%, I am interested in teaching activity - 57.6%), and extrinsic motives (Being a teacher offers good salary - 71.6%, Being a teacher offers more time for family - 71.3%, I have no other choices - 64%, and Being a teacher offers long holidays - 50.7%). Additionally, the findings of in-depth interviews with selected student teachers across majors to some extent confirmed our findings from the questionnaire. However, it should be careful to generalize the findings of this study as it is hard to conclude which specific motives have contributed more to student teachers' motives to enter teacher education programs in this study.

What do the findings of this study imply for developing teacher education programs in Indonesia? The findings of this study may potentially provide educational policymakers and teacher education providers at departmental and university levels with the sort of evidence on the undocumented motives of the first-year student teachers entering teacher education programs in order to become a teacher, which is primarily altruistic, intrinsic, and extrinsic. Among the policies or practices that should be provided by policymakers and teacher education providers in Indonesian contexts. First, during and while student teachers are in their teacher education programs, it is important to allow these motives to be encouraged and developed so that it will become their strengths. Second, teacher education programs in Indonesia should provide student teachers with programs and curriculum to strengthen their altruistic and intrinsic motives. Next, it may be useful for policy makers and teacher education providers in Indonesia to frame various methods that will help persuade more qualified secondary school graduates to enter teacher education programs to become the next generation of teacher. Fourth, it is important for policymakers and teacher education providers to provide adequate support for student teachers who enter teacher education programs as their second preference so that they love to become a teacher after graduating. In addition, teacher education providers should provide early clinical and practicum experiences throughout the program to guarantee that student teachers develop a picture of what teaching will look like in real life. Last, our findings suggest that policy makers and teacher education providers should focus on attracting school graduates who altruistically and intrinsically want to be a teacher in order to maintain their commitment and passion to build the future of their nation, Indonesia.

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