
Students' motivations to become teachers: FIT-Choice findings from Indonesia

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Abstract: The motivations for undertaking teacher education and perceptions about the teaching profession were examined among 802 fourth-year undergraduate teacher education students at two public and two private universities in Jakarta and Yogyakarta, Indonesia ($M = 21$, $SD = 2.31$, 83.16% women). Following translations and piloting, participants completed the factors influencing teaching choice scale (FIT-Choice; Watt and Richardson, 2007) with culturally relevant factors added for: *religious influences*, *second job (time for casual work)*, *tuition fee for teacher education (cheaper)*, *admission into teacher education (less competitive)*, *time for teacher education studies (shorter)* and *media dissuasion*. The extended scale proved valid and reliable with some modifications (e.g., item *teaching qualification* modified into *teaching certification*). *Social utility values*, *prior teaching and learning experiences*, *intrinsic career value* and *religious influences* were the main motivations for choosing teacher education, followed by *secure progression prospects* and *'second job'*. Choosing teacher education as a *fallback career* was lowest rated, and correlated positively with all *teacher education* factors. Teaching was perceived as a highly expert career, with high social status.

Keywords: teacher education students; career motivations; professional perceptions; religious influence; career aspirations; FIT-Choice scale.

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1 Introduction

The quality of teachers significantly influences students’ learning outcomes (World Bank, 2010), thus many countries have focused on recruiting, training, and retaining sufficient numbers of qualified teachers to improve educational outcomes (Hattie, 2009; UNESCO, 2010). The Organisation for Economic Co-operation and Development (OECD, 2011) countries have been working together to improve teacher recruitment and preparation, to make teaching an attractive career choice, and to provide high-quality initial teacher education.

The Indonesian setting is different from Western countries in terms of culture and educational system; not much research has been conducted about teachers in Indonesia. Teacher education graduates may have opportunities in both teaching and non-teaching occupations; also, cultural values, particularly religion, influence students’ decisions about whether to enter teacher education. Teaching is highly respected as a noble profession; ‘teacher’ is translated in Bahasa Indonesia as *guru*, a person with knowledge or expertise who is expected to set a good example to society. There are two main problems in Indonesian teacher education: the distribution of teachers across the nation is unequal and the quality of Indonesian teachers needs to be improved (Chang et al., 2014; Jalal et al., 2009; World Bank, 2010). This paper, founded on the FIT-Choice scale (Watt and Richardson, 2007), focuses on two questions:

- 1 What is the validity and reliability of the FIT-Choice scale and additional culturally specific factors in the Indonesian teacher education context?
- 2 What are students' motivations for entering into teacher education?

The factors influencing teaching choice (FIT-Choice) framework was developed precisely for the purpose of measuring teaching motivations, underpinned by a theoretically comprehensive model, encompassing the range of previously empirically identified teaching motivations, and using a psychometrically rigorous instrument. The FIT-Choice framework is based on the expectancy-value theory of achievement motivation (Eccles [Parsons] et al., 1983; Wigfield and Eccles, 2000) which posits that people's choices, persistence and performance can be explained by their beliefs about how well they will perform an activity and the extent to which they value the activity. *Expectancy* is defined as people's beliefs and judgements about their capabilities to perform a task successfully. *Value* means people's beliefs about the reasons they might engage in certain tasks.

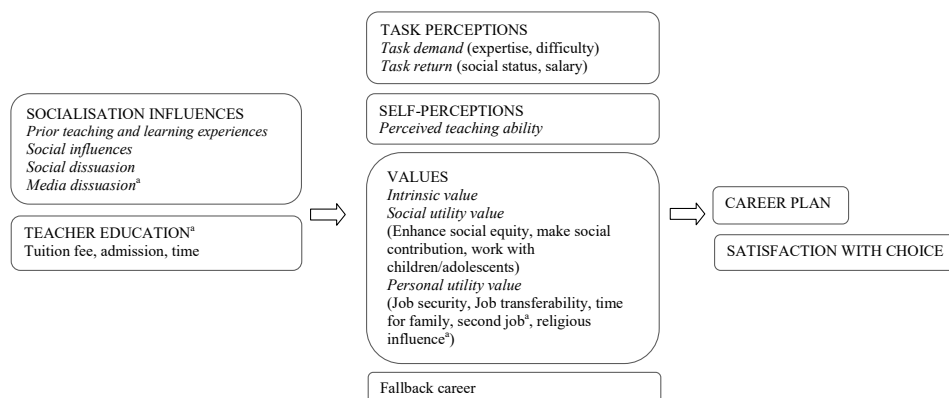
Four motivational components of value are identified: attainment value, intrinsic value, utility value and cost (Eccles et al., 1983). *Attainment value* is the personal importance of performing well on certain tasks, where people engage in certain activities which are important for them with the intention of accomplishing their goals which are consistent with their identities (Wigfield and Cambria, 2010). *Intrinsic* or *interest value* is the pleasure that people gain from doing the activity when people intrinsically value an activity they engage fully and persist in it, resulting in enjoyment (Wigfield and Cambria, 2010). *Utility value* refers to the usefulness of the task for individuals in relation to their current and future goals, including career goals. *Cost* is the negative aspect of doing certain tasks, for instance, performance anxiety, fear of failure, effort needed to achieve a goal, or losing options because of making one choice rather than another (Wigfield and Eccles, 1992). Eccles et al. (1983) emphasise that cost is an important component for choices although there has been little work on this value component until recently (for exceptions, see Conley, 2012; Perez et al., 2014; Watt, in press). Both positive and negative task characteristics influence choices and all choices are believed to have cost linked to them because one choice may eliminate alternatives (Wigfield and Cambria, 2010).

1.1 The FIT-Choice model

Student teachers' motivations have been extensively investigated. Many researchers have applied qualitative methods (e.g., Gao and Trent, 2009; Malderez et al., 2007; Stuart, 2000), while others have developed surveys but rarely reported the reliability and validity of their measures (e.g., Jarvis and Woodrow, 2005; Kyriacou and Kunc, 2007; Kyriacou et al., 2003; Wang, 2004). It is challenging to compare people's motivations to become a teacher because each country has unique cultural, social and economic features. However, by employing the same set of measures it is possible to begin to compare findings across countries. This is the main reason for using an established theoretical and psychometric framework, the FIT-Choice scale which was initially developed in Australia (Richardson and Watt, 2006; Watt and Richardson, 2007, 2008), then widely applied in many countries.

The FIT-Choice framework (see Figure 1) consists of antecedent socialisation influences: *prior teaching and learning experiences*, *social influences* and *social dissuasion*. *Social influences* are defined as influences from family and friends in relation to the choice of a teaching career. In contrast, *social dissuasion* refers to influences from others to not choose a teaching career. These antecedent variables influence *task perceptions*, *self-perceptions*, *task values* and *fallback career*. *Self-perceptions* are about perceived teaching abilities; *task perceptions* include both *task demand* and *task return* components. *Task demand* taps participants' perceptions regarding teachers' required level of expertise and workload. *Task return* is the extent to which teaching is regarded as a well-respected profession, earning a good salary. With respect to expectancy-value theory, the difference between task demand and task return is considered as a cost (Watt and Richardson, 2007). The next part of the model involves *task values*, constituted by *intrinsic value*, *social utility value* and *personal utility value*. *Intrinsic value* measures participants' personal interests and enjoyment to work as a teacher. *Social utility value* assesses future teachers' desire to positively contribute to society by working as a teacher (containing first-order factors: *shape future of children/adolescents*, *enhance social equity*, *make social contribution*, and *work with children/adolescents*). *Personal utility value* consists of *job security*, *time for family*, and *job transferability*. *Fallback career* means that students chose teaching as their last-resort career because they were not accepted into their first career choice, or were uncertain of their future career.

Figure 1 Theoretical framework: Indonesian teacher education students' motivation to choose a teaching career and a career plan



Notes: Factor *shape future of children/adolescents* was omitted based on the CFA result.

^a Factors developed in the current study to include relevant cultural dimension in the Indonesian context.

Source: Adapted from Watt and Richardson (2007) 'Motivational factors influencing teaching as a career choice: development and validation of the FIT-Choice scale', *Journal of Experimental Education*, Vol. 75, p.176.

The FIT-Choice scale was initially developed and validated in the Australian context by Watt and Richardson (2007) among teacher education students in Australia ($N = 1,651$) for the 12 motivation and 6 perception factors. Since then, it has been validated among samples from varying cultural settings overviewed below.

- In a comparative study, including Australia, the USA, Germany and Norway (Watt et al., 2012), strong factorial invariance indicated that the FIT-Choice scale could be similarly applied across settings with the exceptions of three factors. Two were omitted for reasons of reliability in two of the subsamples (*job transferability* $\alpha = .56$ in Germany, $.43$ in Norway; *fallback career* $\alpha = .52$ in the USA, $.59$ in Norway); *job transferability* was initially developed in the Australian context where teachers have opportunities to travel and work overseas, and *fallback career* may be less relevant in highly competitive teacher education programs such as in Norway. *Shape future of children/adolescents* posed a problem of collinearity in the German sample, being highly correlated with other social utility constructs in that subsample.
- A comparative study was conducted in the USA (English) and China (Mandarin Chinese translation), involving 542 student teachers in a university in southern China and 257 student teachers at a university in southwest US (Lin et al., 2012), and all items. The results confirmed acceptable construct validity across the two samples. Most Cronbach's alpha values were adequate in both contexts, except *fallback career* was marginal in the US sample ($\alpha = .57$) and *job transferability* in the Chinese sample ($\alpha = .58$).
- In Germany (German translation), 1,287 student teachers came from five universities (König and Rothland, 2012). These researchers omitted *job transferability* due to its low reliability reported in the earlier German sample (Watt et al., 2012), but included *fallback career* ($\alpha = .59$). Confirmatory factor analyses (CFAs) indicated the FIT-Choice scale was construct valid and reliable in this sample.
- In Turkey (Turkish translation), 1,577 first-year student teachers were studying early childhood, primary and secondary teacher education programs across three universities (Kılınç et al., 2012). Items for *job transferability* were modified because of the different context (e.g., "to work in other European countries" instead of "travel overseas"). CFAs and Cronbach's alpha coefficients provided evidence the scale was construct valid and reliable in that context.
- In a Croatian study (Croatian translation) of 374 first-year student teachers across three universities (Jugović et al., 2012), *job transferability* items were similarly modified and six items with low factor loadings were omitted to improve subscale reliabilities. CFA showed the FIT-Choice scale was construct valid.
- In Spain (Spanish translation), 851 student teachers from 11 universities participated (Gratacós Casacuberta, 2014). One *job transferability* item was again modified. CFAs indicated the FIT-Choice scale was construct valid; Cronbach alpha values were acceptable except for *job transferability* $\alpha = .58$ and *fallback career* $\alpha = .54$.
- In Switzerland (German and French translations), several scale modifications were made to suit the characteristics for a sample of inservice vocational teachers ($N = 483$; Berger and D'Ascoli, 2012). First, the researchers replaced 'children and adolescents' with 'youth'. *Job transferability* was omitted because there is little geographical relocation of teachers in Switzerland (Berger and D'Ascoli, 2012). *Fallback career* was replaced by a new four-item factor, *opportunity*, since the participants were not in a situation to choose among several degrees but in a position to decide to switch to teaching or to stay as a practitioner. *Shape future of youth* and

make social contribution were combined due to high correlation, in both the French- and German- speaking samples. CFAs indicated good model fit in each sample.

Cronbach's alpha values for all factors in both translations were above .70 except for the new factor *opportunity* ($\alpha = .64$), and perceptions of teaching as an *expert career* ($\alpha = .63$) in the French translation.

In collectivist countries such as Turkey (Eren and Tezel, 2010; Kılınç et al., 2012; Topkaya and Uztosun, 2012) and China (Lin et al., 2012), *social utility values* appeared to be more prominent than *intrinsic* and *ability* motivations that were the highest-rated motivations in Western settings. *Ability* and *intrinsic value* motivations were dominant in samples from Australia (Richardson and Watt, 2006, 2014; Watt and Richardson, 2007, 2008; Watt et al., 2012), Switzerland (Berger and D'Ascoli, 2012), the USA and Norway (Watt et al., 2012), Germany (König and Rothland, 2012; Watt et al., 2012) and Canada (Klassen et al., 2011). In a Norwegian sample, *social utility values* were rated lowest, possibly due to participants' belief that 'strong egalitarian principles' [Watt et al., (2012), p.803] were already applied in schools and in society more generally. In studies from Croatia (Jugović et al., 2012), Germany (König and Rothland, 2012) and the Netherlands (Fokkens-Bruinsma and Canrinus, 2014), *social utility values* were rated high along with *intrinsic value* and *ability*. The mean ratings of social utility values in the FIT-Choice studies across different contexts are seemingly influenced by cultural factors.

Teaching was perceived as a highly skilled and demanding occupation in previous FIT-Choice findings from Australia (Watt and Richardson, 2007), Germany (König and Rothland, 2012), Turkey (Eren and Tezel, 2010; Kılınç et al., 2012), and Switzerland (Berger and D'Ascoli, 2012). Those who perceived teaching as a highly skilled occupation also tended to be more satisfied with their choice. Teaching status was rated low in Switzerland, quite low in Australia, Germany and the USA, and higher in Turkey. Returns from salary were perceived as moderate, except in Germany where the salary of teachers was higher in the international comparative study (Watt et al., 2012), which revealed that motivations for teaching tended to be similar across the four examined samples (from Australia, the USA, Germany and Norway); however, perceptions about the profession reflected objective cultural differences (Watt et al., 2012).

Findings from the current Indonesian context can add valuable new insights from this different setting. It was anticipated that Indonesian participants would rate *social utility value* factors highly, in tune with previous FIT-Choice studies reviewed from China and Turkey, also often categorised as collectivist. Research in collectivist cultures has indicated that people tend to fulfil goals and expectations of significant others (Markus and Kitayama, 1991). Indonesian future teachers may also score high on *job security* since teaching can offer opportunities to become civil servants which provide for life-long benefits and a high level of job security.

1.2 The teaching context in Indonesia

Indonesia is an archipelago of 17,508 islands located in South East Asia. In 2014 there are approximately 237 million people living in Indonesia with 28.2% of them aged 14 years or younger (Statistics Indonesia, 2010). Since the implementation of the Teacher Law in 2005, teachers are required to complete a minimum academic qualification of a four-year post-secondary education or a bachelor degree, followed by one or two semesters of postgraduate professional training in teaching, and to pass a certification

test. With this teaching certification, graduates are eligible to apply for a civil servant position to secure permanent teaching at a school and to receive double the basic salary of non-certified teachers, life-long health benefits, and a pension.

The Indonesian government emphasises education as a priority and has started to improve the quality of education by allocating 20% of the annual national budget to the development of the education sector. This has been prompted by the pressing need to invest in more schools and for more teachers to adequately accommodate the high percentage of school-aged youth. According to the Education Law of 1989, Indonesian citizens must undertake a minimum of nine years of compulsory basic education, spending six years at elementary level and a further three years at junior secondary school. After undertaking another three years at senior secondary school, graduates may continue to college (also known as the academy or polytechnic) for one-, two-, or three-year diplomas, or undertake a bachelor degree at a university or institute. In 2013 the government introduced the 12-Year Compulsory Education Program and a new curriculum, requiring all students to attend primary, junior secondary and senior secondary schools.

The context of teacher education in Indonesia is quite different from similar programs in other countries, in terms of programs and tuition fees. Not every Indonesian university offers teacher education programs, but the government organises at least one public teacher education institution in each province. Most Indonesian teacher education programs, particularly in public universities, charge lower tuition fees compared with other programs of study. For example, in 2010 a student teacher at the State University of Jakarta paid tuition fees of approximately US\$ 530–900 per year while a student at the University of Indonesia, which offers only non-teacher education programs, was required to pay approximately US\$ 750–2,500 per year. Consequently, secondary graduates may place teacher education as a second option on their university applications in order to gain a university qualification at a reduced fee.

In Indonesia, it is acknowledged that teacher graduates have opportunities in both teaching and non-teaching occupations. For instance, English education graduates may choose to work as an English teacher or as an interpreter in a multinational company. It is widely presumed that a number of teacher education graduates may choose non-teaching occupations¹. Another contextual difference is that cultural particularities, especially religious beliefs, may affect students' decision to enter teacher education. Most religions in Indonesia highly respect teaching as a noble profession. Religion is a compulsory subject from primary until tertiary study. People are required to choose one religion, which is shown on the national identity card: Islam, Catholicism, Protestantism, Hinduism, Buddhism, or Confucianism. The majority are Muslims (87.18%), followed by Protestants (6.96%), Catholics (2.91%), Hindus (1.69%), Buddhists (0.72%), and others (0.54%) (Statistics Indonesia, 2010).

The importance of sociocultural forces that underlie individual differences in expectancies, ability self-concepts, and subjective task value is highlighted in the expectancy-value model (Wigfield et al., 2004). Different cultures provide different options and levels of freedom in making choices (Wigfield et al., 2004), and these cultural differences can influence the socialisation of motivated behaviours through differences in valued activities, valued goals and the extent to which family obligations influence children's motivation and achievement (Wigfield et al., 2007). Culture frames individuals' choices in relation to achievement-related behaviours such as educational focus, careers, and leisure activities (Wigfield et al., 2004). Investigating people's

motivations to become teachers in different contexts offers comparisons of how sociocultural values and beliefs influence people's career choices.

1.3 The FIT-Choice model in the Indonesian context

The Indonesian translation of the FIT-Choice scale consisted of all 12 motivational and 6 perception factors. In the original study, motivation items began with “*I chose to become a teacher because...*” but the current study used “*I chose to enter teacher education because...*”, considering that Indonesian teacher education students may be likely to choose a non-teaching career after completing study. Items for all factors were rated on a scale of 1 (*not at all*) to 7 (*extremely*) as in the original FIT-Choice scale.

Indonesia has one of the largest and most diverse teacher workforces in the world (Chang et al., 2014) in a complex education system. Researchers have to be cautious when applying Western constructs directly to other contexts without examining their meaning and main assumptions from the point of view of the researched cultural backgrounds (Ho and Hau, 2014). Six contextually relevant motivation factors were added to take account of factors particular to the sociocultural context of Indonesia: *tuition fee for teacher education*, *admission into teacher education*, *time for teacher education studies*, *religious influences*, *career progression prospects*², and *second job*; along with one perception factor: *media dissuasion*. Each is discussed in turn, below.

In Indonesia, the tuition fee for teacher education is less expensive and entrance to teacher education is less competitive than programs such as engineering, economics, medicine and law. In addition, many student teachers have informal teaching jobs during their study, such as work as private tutors, which may impact their time of study completion. As most teacher education students have working experience during their studies, the period after completing teacher education and securing a teaching position may be shorter.

Indonesia has the largest Muslim population in the world and each Indonesian citizen is expected to practise according to her/his religious beliefs. This was the main reason for including *religious influences* as a motivation in the measurement, considering most of the religions view teaching as a noble profession. The concept of *career progression prospects* was adopted from motivations for career choice (MCC) scale (Watt and Richardson, 2006) to include whether students chose teaching because it offers a clear career pathway and good promotion prospects which has been emphasised since 2005 when the Ministry of National Education of the Indonesian government improved teachers' remuneration and career status.

In the original study ‘*bludging*’ (i.e., becoming a teacher to have a short working day and lengthy holidays, and to get by with little effort) was factorially indistinguishable from *time for family* (Watt and Richardson, 2007), although the current study aimed to check if *bludging* would emerge as a distinct factor in the Indonesian context. The concept of a *second job* was added to take account of the different educational contexts when compared with previous FIT-Choice study settings. Most schools in Indonesia start at 7 am and dismiss around 1 pm, and there is a one-month school holiday from the middle of June until the middle of July every year. Teachers are able to do other jobs after school hours and they have longer holidays than other comparable full-time professions. Similar to the concept of social dissuasion, *media dissuasion* was defined as influences from the mass media to not choose a teaching career. This was considered a possible influence given the ‘poor press’ teachers often receive in the Indonesian media.

Eight additional items were also developed under the original motivational factors. "Teachers can become a civil servant" and "teaching can provide a life-long career" were included under *job security*, because Indonesian teachers who have civil servant status have a stable salary, health benefits, and receive pensions after retirement. "My parents are teachers", "I have relatives who are teachers", "I have friends who are teachers", and "I know people who are teachers" were added under *social influences*, considering that as a collectivist society, Indonesians tend to be influenced by significant others. "As a teacher I will have more time to do home duties" was added under *time for family*, due to the fact that most Indonesian schools finish in the afternoon. "I have had positive teaching experiences" was included in *prior teaching and learning experiences*, as it is common that teacher education students undertake casual or part-time teaching work prior to formal qualification. One *job transferability* item "Teaching will be a useful job for me to have when travelling" was modified to "I can choose where I teach", as most Indonesian teacher education graduates would be likely to stay within the country as their teaching degrees are not internationally recognised.

2 Pilot study

2.1 Methodology

A pilot study was conducted during July to August 2011 to make a preliminary check of the reliability of the translated questionnaire (see Tables 1 and 2), and to determine whether participants understood the meaning of each item. Forty final-year student teachers from the Mathematics Education Program at the State University of Jakarta participated in the pilot study. The questionnaire was initially prepared in English, but translated from English to Bahasa Indonesia by two bilinguals (including the first author), then translated back into English by a third bilingual. The original and back-translated versions were discussed by the translators to verify accuracy and resolve equivalence. In the translation process, words were modified to suit the Indonesian teacher education system. For instance, an item under *job transferability* "I chose teacher education because a teaching qualification is recognised everywhere", the word 'qualification' was translated into 'certification' because in the Indonesian context 'qualification' could only refer to a bachelor degree. Because teachers are required to complete a bachelor study followed by a teaching certification, the term 'certification' suited the context instead.

In the pilot study, six constructs had Cronbach's alpha values below .70. Four were motivational factors: *fallback career* $\alpha = .62$; *bludging* $\alpha = .60$; *admission into teacher education* $\alpha = .52$; and *time for teacher education studies* $\alpha = .58$. All item translations were further checked and discussed; seven items were added with the aim of improving reliabilities. Extra items were for *fallback career* "I was not accepted into my first enrolment choice to another program"; *bludging* "as a teacher I will have more free time" and "as a teacher I will have time to do other things"; *admission into teacher education* "it was less difficult to gain entry into the teacher education program" and "the teacher education program was easier to get into"; *time for teacher education studies* "the number of years in teacher education is shorter compared to other programs" and "teacher education takes less time to complete than other programs".

Table 1 Cronbach's α reliability coefficients for motivation factors

Factors	n items	Sample item (Original English + new items)	Cronbach's α		
			Watt and Richardson (2007)	Pilot study	Main study
		"I chose teacher education because..."			
Ability	3	... teaching is a career suited to my abilities	.82	.89	.83
Intrinsic value	3	... I am interested in teaching	.59	.89	.88
Fallback career	4	... I was unsure of what career I wanted	.65	.62	.73
Job security/career progression prospects ^e	9	... I was not accepted into my first enrolment choice to another program ^a	n/a ^e	n/a ^e	.91
		... teaching will be a secure job			
Time for family ^f	8	... teachers can become a civil servant ^a	.80	.83	.89
		... teaching offers good promotion prospects			
		... teaching hours will fit the responsibilities for having a family			
		... I will have more time to do home duties ^a			
Job transferability	3	... as a teacher I will have lengthy holidays	.69	.72	.69
		... a teaching job will allow me to choose where I wish to live			
Shape future of children/adolescents ^d	3	... a teaching certification is recognised everywhere ^b	.79	.84	.82
Enhance social equity	3	... teaching will allow me to have an impact on children/adolescents	.83	.93	.83
Make social contribution	3	... teaching will allow me to work against social disadvantage	.82	.81	.83
Work with children/adolescents	4	... teachers make a worthwhile social contribution	.88	.84	.86
Prior teaching and learning experiences	4	... I want a job that involves working with children/adolescents	.87	.83	.82
Social influences	7	... I have had inspirational teachers	.82	.79	.82
		... my family think I should become a teacher			
		... my parents are teachers ^a			

Notes: Items for all factors were rated on a scale from 1 (not at all important) to 7 (extremely important). Total items for analysis: 65.

^aAdditional items to original factors.

^bModified item of the existing measures. The original scale used *teaching qualification*; in the Indonesian context, the term *teaching certification* is commonly used.

^cCronbach's α values were inadequate, these factors were improved in the main study by revising the item wordings.

^dDeleted factor based on CFA result (see also Watt et al., 2012; Gratacos Casacuberta, 2014)

^eIn the pilot study *job security* $\alpha = .78$ and *career progression prospects* $\alpha = .92$.

^fIn the pilot study *time for family* $\alpha = .83$ and *bludging* $\alpha = .60$.

Table 1 Cronbach's α reliability coefficients for motivation factors (continued)

Factors	n items	Sample item (Original English + new items)	Cronbach's α	
			Watt and Richardson (2007)	Pilot study
<i>Additional factors:</i>				
Second job	3	... as a teacher I can do casual work after school hours	n/a	.86
Religious influences	3	... my religion suggests that being a teacher is a noble profession	n/a	.82
Tuition fee for teacher education	2	... tuition fee for teacher education is affordable compared to other programs	n/a	.88
Admission into teacher education	4	... entry into teacher education was less competitive than other programs	n/a	.52 ^c
Time for teacher education studies	3	... waiting period to get a teaching job is shorter compared to other professions	n/a	.58 ^c

Notes: Items for all factors were rated on a scale from 1 (*not at all important*) to 7 (*extremely important*). Total items for analysis: 65.

^aAdditional items to original factors.

^bModified item of the existing measures. The original scale used *teaching qualification*; in the Indonesian context, the term *teaching certification* is commonly used.

^cCronbach's α values were inadequate, these factors were improved in the main study by revising the item wordings.

^dDeleted factor based on CFA result (see also Watt et al., 2012; Gratacós Casacuberta, 2014)

^eIn the pilot study *job security* $\alpha = .78$ and *career progression prospects* $\alpha = .92$.

^fIn the pilot study *time for family* $\alpha = .83$ and *bludging* $\alpha = .60$.

Table 2 Cronbach's α reliability coefficients for perceptions factors

Factors	n items	Sample item (Original English + new items)	Cronbach's α		
			Watt and Richardson (2007)	Pilot study	Main study
Expertise	4	Do you think teaching requires high levels of expert knowledge?	.73	.67	.87
Difficulty	3	Do you think teaching is a stressful job? ^a	.73	.37 ^b	.78
		Do you think teaching is a tough job? ^a			
Social status	6	Do you believe teaching is a well-respected career?	.90	.84	.87
Salary	3	Do you think teachers earn a good salary?	.94	.86	.76
		Do you think teachers get more incentives (e.g., health insurance, family allowance, pensions)? ^a			
Social dissuasion	3	Did others influence you to consider careers other than teaching?	.60	.73	.72
Satisfaction with choice	2	How satisfied are you with the choice of teaching as a career? ^c	.92	.83	.84
<i>Additional factor:</i>					
Media dissuasion	2	Have you been affected by media reporting about teachers' living conditions?	n/a	.91	.87

Notes: Items for all factors were rated on a scale from 1 (*not at all*) to 7 (*extremely*). Total items: 23.

^aAdditional items to original factors.

^bCronbach's α value from the pilot study was unacceptable. The factor was improved in the main study by revising the translation and adding more items.

^cThe FIT-Choice original statement was *How satisfied are you with your choice of becoming a teacher?*

Two perception factors also had low Cronbach's alpha in the pilot study: *expertise* $\alpha = .67$ and *difficulty* $\alpha = .37$. Translation into Bahasa Indonesia for one *expertise* item was revised (C15 "Do you think teachers need highly specialised knowledge", the translation for "highly specialised knowledge" changed to "special knowledge") due to there being no equivalent meaning. Two *difficulty* items were revised: C2 "Do you think teachers have a heavy workload?" to "Do you think teaching is a stressful job?", and C11 "Do you think teaching is hard work?" to "Do you think teaching is exhausting work?", and one item added "Do you think teaching is a tough job?".

Table 3 Response rates

University	N Students		Response rate (%)	N Surveys	
	Present	Participated		Complete	Incomplete ^c
State University of Jakarta ^a	378	361	95.50	328	33
State University of Yogyakarta ^a	242	235	97.10	223	12
Sanata Dharma University ^b	196	189	96.43	184	5
Atmajaya University ^b	69	69	100	67	2

Notes: ^aPublic university; ^bprivate university; ^cexcluded in analyses due to high missing data (> 50% items)

Table 4 Distribution of participants across teaching programs and school levels (N = 802)

Teaching program	School level	n	%
Mathematics	S	197	24.56
Chemistry	S	12	1.50
Physics	S	27	3.37
Biology	S	25	3.12
Guidance and counselling	S	20	2.49
English language	S	128	15.96
Primary school teacher	P	293	36.53
Early childhood	EC	65	8.11
Special education	SE	30	3.74
Missing information		5	0.62

Notes: S: Secondary school; P: Primary school; EC: Early childhood; SE: Special education

3 Main study

3.1 Methodology

Participants were studying at the State University of Jakarta ($n = 328$, 40.90%), the State University of Yogyakarta ($n = 223$, 27.81%), Sanata Dharma University ($n = 184$, 22.94%), and Atmajaya University ($n = 67$, 8.35%). The mean age of participants was 21.61 years ($SD = 2.31$), consisting of mainly women ($n = 667$, 83.16 %). Referring to their religious background, 543 (67.71%) were Muslim, 192 (23.94%) Catholic, 56 (6.98%) Protestant, 4 (0.50%) Buddhist, 4 (0.50%) Hindu, and three did not answer. Over one-third ($n = 307$, 38.28%) were undertaking paid work during their study, another one-third ($n = 269$, 33.54%) had work experience in the past, the remainder ($n = 224$, 27.93%) had not worked at all, and two did not answer. Among those who were either currently or previously employed, 530 (92.01%) had teaching experience and only 45 (7.81%) had non-teaching experience and one did not specify. Response rates varied due to different classroom locations and times of data collection, but all response rates were above 95% of those present and spread evenly across the four universities with no systematic pattern for missing data. Specifically, the response rates were 95.50% for the State University of Jakarta, 97.10% for the State University of Yogyakarta, 96.43% for Sanata Dharma University, and 100% for Atmajaya University.

Following university and departmental ethical approvals, explanatory letters were distributed along with paper-based questionnaires to final-year undergraduate teacher education students during October–November 2011. Students who had participated in the pilot were excluded from the main study. Two public and two private universities were selected because they had reputable teacher education programs for around 50 years. In terms of quality, there are no strict selections or screening processes for teacher education candidates and the quality of graduates may vary across universities. Teacher education institutions have different enrolment criteria and entrance tests, particularly between public and private universities. Enrolment tests for public universities are organised nation-wide, private universities manage their selection tests independently.

4 Results

4.1 Motivations

Two CFAs and model fits were conducted using Amos 20, one for motivations and one for perceptions, using full responses ($Ns = 540$ motivations; 728 perceptions)³. The proposed theorised model was tested using maximum likelihood (ML) estimation (see Harrington, 2009), which in large samples is asymptotically unbiased, to yield efficient and consistent estimates (Kline, 2011). Fit indices for the models were examined, then modification indices (MIs). The fit indices reported are the goodness-of-fit index (GFI), Tucker-Lewis index (TLI), comparative fit index (CFI), root mean-square error of approximation (RMSEA) and standardised root mean-square residual (SRMR). The cut-off criteria were TLI and CFI $\geq .95$, RMSEA $\leq .06$, and SRMR $\leq .08$ (Hu and Bentler, 1999).

Table 5 Item wordings and MIs between paired item measurement errors

Item 1	Item 2	MI
<i>Motivations</i>		
<i>Freed for estimation</i>		
B17 I have had inspirational teachers	B30 I have had good teachers as role-models	170.059
B44 I have relatives who are teachers	B34 My parents are teachers	130.316
B5 I have the qualities of a good teacher	B19 I have good teaching skills	63.786
B50 Teaching offers good promotion prospects	B56 Teaching provides a clear pathway for career development	58.852
B3 My friends think I should become a teacher	B40 People I've worked with think I should become a teacher	49.020
B4 As a teacher I will have a lengthy holidays	B18 As a teacher I will have a short working day	37.913
B24 My family think I should become a teacher	B40 People I've worked with think I should become a teacher	67.615
B2 Part-time teaching could allow more family time	B16 Teaching hours will fit with the responsibility of having a family	30.839
<i>Not freed for estimation</i>		
B5 I have the qualities of a good teacher	B6 Teaching allows me to provide a service to society	29.985
B11 I was unsure what career I wanted	B15 Entry into teacher education was less competitive than other programs	29.585
B58 My religion suggests that I can serve others through teaching	B57 I have friends who are teachers	28.353
B6 Teaching allows me to provide a service to society	B10 I want to help children/adolescents learn	28.198
B45 A teaching job will allow me to choose where I wish to live	B46 Teaching has a career 'ladder' I can climb	27.451
B22 A teaching certification is recognised everywhere	B21 I know people who are teachers	27.336
B25 Teaching can provide a life-long career	B24 My family think I should become a teacher	27.329
B29 School holidays will fit in with family commitments	B28 I can spread religious messages in my teaching	25.567
B19 I have good teaching skills	B20 Teachers make a worthwhile social contribution	22.440
<i>Perceptions</i>		
<i>Freed for estimation</i>		
C12 Do you believe teaching is a well-respected career?	C13 Do you think teachers feel their occupation has high social status?	33.687
<i>Not freed for estimation</i>		
C4 Do you believe teachers are perceived as professionals?	C5 Do you think teachers have high morale?	165.722
C6 Do you think teaching is a highly skilled motivation?	C5 Do you think teachers have high morale?	50.052

Table 6 Latent correlations among FIT-Choice and new motivational factors

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Ability	-															
2 Intrinsic value	.892	-														
3 Fallback career	-.141	-.236	-													
4 Job security	.797	.603	.026	-												
5 Time for family	.635	.427	.161	.750	-											
6 Second job ^a	.578	.380	.078	.695	.794	-										
7 Job transferability	.700	.464	.242	.866	.823	.707	-									
8 Enhance social equity	.649	.542	-.038	.501	.416	.441	.422	-								
9 Make social contribution	.766	.731	-.191	.630	.430	.429	.475	.801	-							
10 Work with children/adolescents	.797	.761	-.199	.612	.464	.433	.471	.820	.876	-						
11 Prior teaching and learning experiences	.835	.709	-.122	.711	.504	.523	.614	.727	.826	.779	-					
12 Social influences	.718	.543	.206	.823	.703	.638	.892	.488	.601	.561	.725	-				
13 Religious influences ^a	.612	.576	-.007	.622	.550	.468	.584	.769	.796	.663	.715	.661	-			
14 Tuition fee for teacher education ^a	.274	.199	.270	.390	.424	.355	.480	.306	.199	.225	.263	.369	.339	-		
15 Admission into teacher education ^a	.226	.093	.474	.278	.366	.297	.445	.137	.070	.068	.162	.325	.215	.588	-	
16 Time for teacher education ^a	.336	.184	.397	.498	.580	.457	.705	.251	.208	.202	.272	.542	.382	.759	.850	-

Notes: Italic numbers denote statistical significance ($p < .01$).^aNew factors.

Table 7 Latent correlations among FIT-Choice and new perceptions about teaching factors

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1 Expertise	-						
2 Difficulty	.108	-					
3 Social status	.620	.045	-				
4 Salary	.191	.054	.624	-			
5 Social dissuasion	-.160	.392	-.093	.046	-		
6 Media dissuasion ^a	.076	.210	.229	.190	.468	-	
7 Satisfaction with choice	.547	-.154	.684	.399	-.136	.205	-

Notes: Italic numbers denote statistical significance ($p < .01$).

^aNew factors.

The estimated 19-factor *motivations for teaching* CFA model consisted of 69 items, and produced an inadmissible solution, likely due to high latent correlations between factors *time for family* and *bludging*⁴ (.952), *shape future of children/adolescents*⁵ and *work with children/adolescents* (.982), *shape future of children/adolescents* and *enhance social equity* (.926), *shape future of children/adolescents* and *make social contribution* (.912), and *job security* and *career progression prospects* (.936). The model was revised by combining *time for family* and *bludging* items as per the FIT-Choice scale, combining *job security* and the added factor *career progression prospects* (MCC scale; Watt and Richardson, 2006), and omitting *shape future of children/adolescents* (the latter as in Watt et al., 2012; Gratacós Casacuberta, 2014). The respecified model showed marginal fit, $\chi^2(1941, N = 540) = 5432.228, p < .001, TLI = .846, CFI = .861, RMSEA = .058,$ and $SRMR = .060$. There were high MIs between item B52 and each of B7 (152.650); B1 (104.155); B12 (95.034); B43 (57.616); and B37 (37.679). Item B52 under factor *job security* was therefore omitted (“teaching is a fulfilling career”); this also improved Cronbach’s alpha for *job security* from .908 to .914. Item pairs in the respective model with high MIs were checked. In cases where similar meanings were found between item pairs, error covariances were freed and the model was sequentially re-estimated. In total, eight measurement error covariances were estimated; in each case, model fit indices appeared improved (see Table 5). MIs for measurement errors could not be freed for estimation where item pairs measured very different items and could not be defended on substantive grounds.

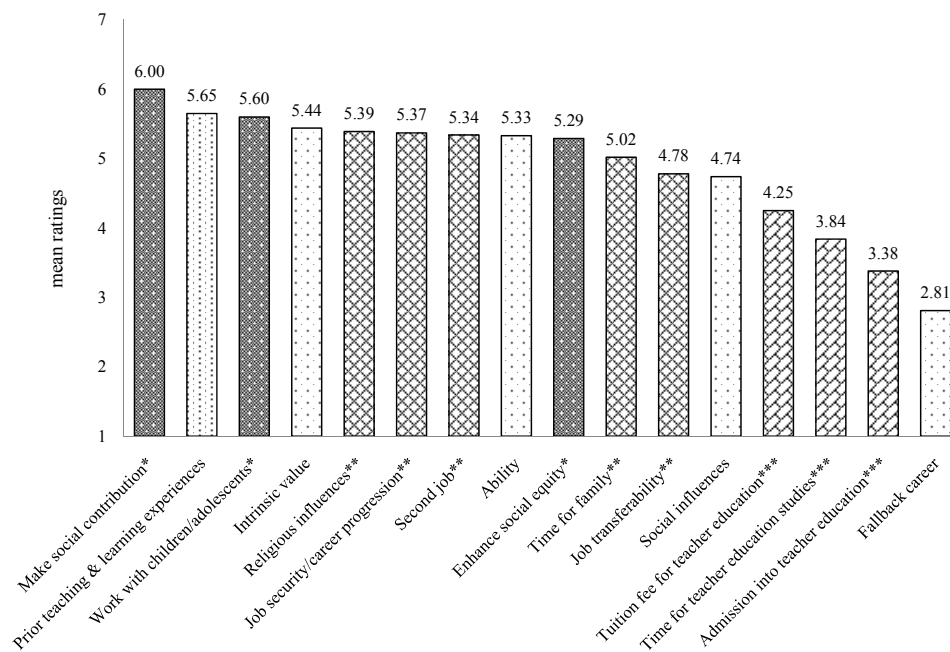
The final motivations model fit consisted of 16 factors and 65 items $\chi^2(1887, N = 540) = 4706.702, p < .001, TLI = .873, CFI = .885, RMSEA = .053,$ and $SRMR = .055$. Cronbach’s alpha values were calculated for all factors. Reliability coefficients that were low in the pilot study were improved in the main study: *fallback career* $\alpha = .73$; *admission into teacher education* $\alpha = .86$; *time for teacher education studies* $\alpha = .74$; *expertise* $\alpha = .87$ and *difficulty* $\alpha = .78$. Only one factor had alpha slightly below .70 (*job transferability* $\alpha = .69$).

Most motivations for teaching factors were significantly intercorrelated (Table 6) especially between social utility values (*make social contribution* and *work with children/adolescents*, $\phi = .88$), also between *ability* and *intrinsic value* ($\phi = .89$), *admission into teacher education* and *time for teacher education* ($\phi = .85$), and *second job* and *time for family* ($\phi = .79$). *Religious influences* had significant positive correlations with all social utility values; *fallback career* was negatively but weakly

correlated with *intrinsic value*, *make social contribution*, and *work with children/adolescents*, but, positively correlated with the three teacher education factors: *admission*, *time spent* and *tuition fee*.

Observed factor scores for the three social utility values were rated high (make social contribution, work with children/adolescents, and enhance social equity). Next were prior teaching and learning experiences and intrinsic value. Five factors under personal utility value were rated relatively high (religious influences, job security/career progression prospects, second job, time for family/bludging, job transferability). Tuition fee and time for teacher education were rated above the midpoint, whereas admission into teacher education was slightly below it. Fallback career was rated the lowest.

Figure 2 Mean ratings for observed motivational factors



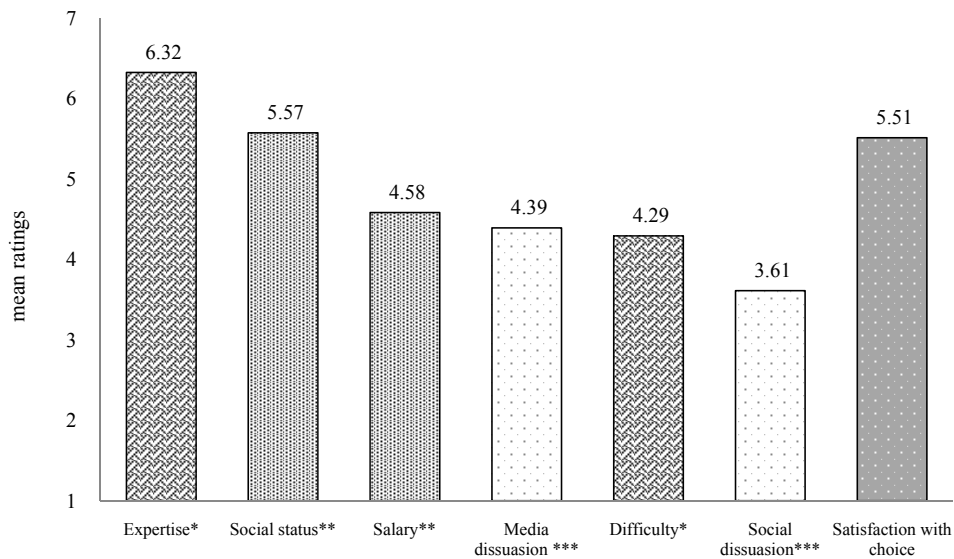
Notes: *Social utility value factors; **personal utility value factors; ***teacher education factors; scale anchors from 1 (*not at all important*) – 7 (*extremely important*)

4.2 Perceptions

Another CFA was performed for the FIT-Choice perceptions⁶ with one additional factor relevant to the Indonesian context (*media dissuasion*). The proposed seven-factor *perceptions about teaching* model consisted of 24 items and the data did not fit well, χ^2 (233, $N = 728$) = 1,232.838, $p < .001$, TLI = .863, CFI = .884, RMSEA = .077, and SRMR = .085. The MIs for item C7 “Do you think teaching is emotionally demanding?” in the *difficulty* factor indicated problematic cross-loading items on factors including *satisfaction* (MI = 99.331), *social status* (MI = 110.242) and *expertise* (MI = 219.370); therefore C7 was omitted and the model reanalysed. The fit improved, χ^2 (211, $N = 728$) = 893.949, $p < .001$, TLI = .901, CFI = .917, RMSEA = .067, and SRMR = .048. Item

pairs with high MIs were examined, and the error covariance was freed for one pair of items which contained parallel wording (Table 5). The final fit for 7 factors and 23 items showed $\chi^2(210, N = 728) = 847.735, p < .001, TLI = .907, CFI = .923, RMSEA = .065,$ and $SRMR = .045$. Most participants perceived teaching as a highly skilled occupation requiring high levels of expertise, with high social status, slightly above average earnings, and moderately tough (see Figure 3). The highest correlations among perceptions about teaching factors were between *expertise* and *social status* ($\phi = .62$), *social status* and *satisfaction with choice* ($\phi = .68$), and *social status* and *salary* ($\phi = .62$).

Figure 3 Mean ratings for observed perceptions of teaching and career choice satisfaction factors



Notes: *Task demand factors; **task return factors; ***dissuasion factors; scale anchors from 1 (*not at all*) – 7 (*extremely*)

5 Discussion

5.1 Scale validity and reliability

Our main objective was to test the validity and reliability of the translated and extended Indonesian FIT-Choice scale among a large sample of Indonesian teacher education students. Results supported the construct validity of the scale, by deleting item B52, omitting factor *shape future of children/adolescents* (consistent with Watt et al., 2012), merging *time for family/bludging* items [as per the original FIT-Choice scale; (Watt and Richardson, 2007)], and *job security/career progression prospects* due to extremely high latent correlation. Career progression prospect had been added from the MCC scale (Watt and Richardson, 2006), with similar findings found by Watt (in press) among adolescent Australian youth. Cronbach's alpha reliability coefficients indicated good to acceptable internal consistencies for all final factors.

The FIT-Choice scale factor structure was essentially confirmed, first for the original scale, then for the Indonesian adapted version with addition of new context factors. In the current study, the very high latent correlation between *intrinsic value* and *ability* motivations ($\varphi = .89$) paralleled findings in Spain ($\varphi = .74$; Gratacós Casacuberta, 2014) and Germany ($\varphi = .86$; König and Rothland, 2012); whereas in Croatia ($\varphi = .64$; Jugović et al., 2012) and Australia ($\varphi = .68$; Watt and Richardson, 2007) the correlation was less strong. This suggests that future teachers' *ability* motivations were highly interwoven with their interest in and enjoyment of teaching in the present study.

5.2 Motivations of Indonesian teacher education students

From 12 original FIT-Choice and five additional motivation factors, all three social utility values were rated highly: *make social contribution* was the highest rated, followed by *work with children/adolescents*, and *enhance social equity*. In a collectivist country like Indonesia, it was not surprising that social utility values were rated high similar to FIT-Choice studies in other collectivist cultures reviewed earlier. *Fallback career* was the lowest rated motivation in the Indonesian setting, indicating that students entered teacher education as a positive choice, similar to Australia (Watt and Richardson, 2007), Germany (König and Rothland, 2012), Croatia (Jugović et al., 2012), Turkey (Kılınç et al., 2012), Spain (Gratacós Casacuberta, 2014), the USA and China (Lin et al., 2012), that teaching was not a second choice career. It was interesting that *intrinsic value* was rated higher than personal utility values despite the potential benefits of teachers becoming civil servants in Indonesia.

This study offers new insights to the literature by taking *religion* into account as one of the motivational drivers, as well as *second job* and three *teacher education* factors. Because most religions respect teaching as a career choice, it was not surprising that *religious influences* were rated high and had strong correlations with all factors except *fallback career*. The new *second job* factor was also rated high, meaning that most participants intended to take on a teaching career together with other employment. As most participants in this study were women, domestic housework might be a reason for choosing teaching due to the short work hours. Other new factors *tuition fee for teacher education*, *time for teacher education studies* and less competitiveness of *admission into teacher education* were rated moderately.

5.3 Perceptions about teaching

In the Indonesian context, educational practices such as teacher and student interactions are influenced by social factors such as rank, social status, and age (Dardjowidjojo, 2006). People with higher rank, social status and age receive more respect than others. Teaching is considered a highly regarded position and teachers hold responsibility equal to parents during school hours. Most participants perceived teaching as a highly expert career with high social status and moderate salary, possibly due to the new Teacher Law announced by the government in 2005 allowing teachers with a four-year university degree and teaching certification to receive double the basic salary and be eligible to apply for a civil servant position. Findings from this study confirm that teaching was perceived as a highly demanding occupation; not only do teachers need to be

knowledgeable in the subject matter and able to communicate with students in the classroom, they also experience high expectations and pressure from the society as “the agents largely responsible for student success in all aspects” [Luciana, (2004), p.1]. *Social dissuasion* was rated a little below the midpoint, and had been found to be moderate among samples from Australia, Germany, Norway (Watt et al., 2012), Turkey (Kılınç et al., 2012), Croatia (Jugović et al., 2012), Germany (König and Rothland, 2012), the Netherlands (Fokkens-Bruinsma and Canrinus, 2014), the USA and China (Lin et al., 2012), and low in Switzerland (Berger and D'Ascoli, 2012). Interestingly, the new factor of *media dissuasion* was rated moderately high in the present study, in line with the negative portrayal of the teaching profession in the mass media, which likely discourages people from choosing teaching as a career path.

5.4 Significance and future directions

As the research applied an existing measure of teaching motivations and perceptions, findings contribute to the international comparisons concerning choosing a teaching career, with the addition of culturally specific factors: religious influences, teacher education, and intention to have a second job. The study involved a large number of student teachers from different sociocultural backgrounds and religious affiliations studying at public and private universities in Indonesia. However, there are 32 states and 342 private teacher education institutions spread across 34 provinces of Indonesia with students coming from various ethnic backgrounds, thus the findings cannot be simply generalised to the entire Indonesian archipelago. Further, the analyses rely on cross-sectional data, and more detailed longitudinal research is needed to follow up participants' motivations and perceptions after graduation, particularly in the first few years of teaching, to discern whether they predict remaining in or discontinuing from the profession.

The findings provide a basis for the improvement of teacher education programs and teacher policies in Indonesia, and are of importance for preparing future teachers and understanding teachers who have entered the profession. For example, do teachers take a second job while teaching, and does it affect their teaching commitments and teaching quality, particularly during early career? Studies in the literature suggest that teachers hold second jobs mainly for monetary reasons (Betts, 2004; Parham and Gordon, 2011), and that this impacts the quality of their teaching due to lack of time preparing materials, attending professional development courses, and undertaking leadership roles in schools.

As in other FIT-Choice study contexts, participants in Indonesia chose to enter teacher education due to positive motivations, not because of lack of other options. Because Indonesia needs more teachers in rural and remote areas to evenly distribute placements across the nation, the finding that social utility values were among the highest motivations is important. If these teachers are eager to benefit the socially disadvantaged, provide a service to society and help children and adolescents, hopefully this may attract them to teach in such locations. It certainly appeared that teaching was perceived as a career high in social status, and attractive to secondary school graduates who enter teacher education and plan to work as qualified teachers upon completion of their studies.

6 Conclusions

This study was the first to translate and apply the FIT-Choice scale in the Indonesian setting and has contributed to the growing literature about teaching motivations, by providing a validated Indonesian translation of the FIT-Choice scale and first indications of mean-level factor ratings, including for six added culturally relevant factors. From the theoretical perspective, this study supported the same FIT-Choice factor structure in a different context, and expanded the FIT-Choice theoretical framework to add Indonesian culturally specific factors: *second job* (opportunity to work another job), *religious influences* (influence from religion to enter teacher education), *tuition fee for teacher education* (cheaper), *admission into teacher education* (less competitive), *time for teacher education* (shorter, less waiting time to get a job), and *media dissuasion* (mass media influence to not choose teaching). These were all effectively measured by new subscales, and found to be relevant in the Indonesian setting. From the applied perspective, the findings are noteworthy as the basis for preparing future teachers in Indonesia. The fact that teaching is known to be an occupation requiring high levels of expert knowledge is valuable. This can be used to continue to improve the image of Indonesian teachers and raise their status to that of other expert professionals, to attract top graduates to become future teachers. The decision of the Indonesian government to increase the salary of qualified teachers and provide them with pension benefits as civil servants may improve the teaching career to offer respect, status and income comparable to those offered by other attractive graduate careers. The difficulties of attracting and retaining quality teachers in the rural and more remote parts of the Indonesian archipelago are likely to continue to be similar to those experienced by many countries around the world, and the geographical dispersion of a very large population presents special difficulties for Indonesia. A better understanding of teachers' motivations and associated contextual influences should prove useful in continuing to develop policies designed to attract and retain talented and motivated people in the teaching profession.

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Notes

- 1 Although very few alumni records are available, this issue is often advertised. For instance, a university website promotes career options for Indonesian language education graduates as teachers, researchers, writers, newspaper journalists and editors, also radio announcers (<http://pmb.ums.ac.id/2011/alumni> retrieved 1 April 2013).
- 2 Combined with *job security* based on high correlation in CFA.
- 3 A CFA was first conducted to check the factor structure of the original FIT-Choice motivation factors (*ability, intrinsic value, fallback career, job security, time for family, job transferability, enhance social equity, make social contribution, work with children/adolescents, prior teaching and learning experiences, and social influences*) omitting all new factors and items. The model consisted of 11 factors and 36 items because *shape future of children/adolescents* was omitted due to multicollinearity with the other social utility factors, as had been the case previously in two studies (German sample in Watt et al., 2012; Spanish sample, Gratacós Casacuberta, 2014; Swiss vocational sample, Berger and D'Ascoli, 2012). This showed good fit, $\chi^2(533, N = 540) = 1,369.015, p < .001, TLI = .916, CFI = .929, RMSEA = .054, and SRMR = .050$. All Cronbach alphas values were above .70 except *fallback career* $\alpha = .61$ and *job transferability* $\alpha = .69$.
- 4 Combined with *time for family* based on CFA [as in the original FIT-Choice validation, (Watt and Richardson, 2007)].
- 5 Omitted from final analyses based on CFA due to multicollinearity with 3 other factors: *work with children/adolescents, enhance social equity, and make social contribution*.
- 6 A CFA was first performed to check the factor structure of all original FIT-Choice perception factors (*expertise, difficulty, social status, salary, social dissuasion, and satisfaction with choice*) omitting new factors and items. This model consisted of 6 factors and 19 items and indicated good fit, $\chi^2(139, N = 728) = 723.927, p < .001, TLI = .891, CFI = .911, RMSEA = .076, and SRMR = .047$. All Cronbach alphas values were above .70 except *difficulty* $\alpha = .65$.