

**HAR05249**

**Motivating factors influencing teachers' engagement in postgraduate study: The results of a study of five schools.**

A paper presented at the  
Australian Association for Research in Education Conference 2005

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### *Abstract*

This paper will report on the initial findings of a survey undertaken in early 2004, investigating teachers' motivations to undertake professional development, in particular where postgraduate study is involved.

The survey took the form of a questionnaire which included factors drawn from the professional development and educational psychology literature. The factors considered influential in motivating teachers to undertake professional development included among others, career advancement, pedagogical content, school and family support, and serving and enabling students. The questionnaire comprised items requiring Likert type scales to measure teachers' motivations to engage in postgraduate study.

Participants in the study (N=178) were primary and secondary teachers in five Christian schools located in the south eastern region of Queensland. Of the participants, 27 (15%) were currently undertaking or were in the process of enrolling in postgraduate studies.

Results of the study identified the strongest motivators for teachers engaging in postgraduate study were Christian education, pedagogical content, serving students, and educational philosophy. The least relevant motivators included school expectations, school support, performance avoidance and performance approach.

These results should be of interest to tertiary institutions in determining what factors attract teachers to postgraduate courses. The results should also be of interest to schools in helping them understand how they can better support and encourage their teachers to engage in postgraduate study.

## *Motivating factors influencing teachers' engagement in postgraduate study*

### ***Introduction***

Continued Professional Learning (CPL) is a term that is used to describe the activities carried out by teachers, schools, systems and tertiary bodies to promote personal and professional growth. This paper is concerned with the motivations teachers have to engage in postgraduate study as part of their CPL.

With increasing emphasis on teacher accountability (Ingvarson, 2002), it is important that teachers are not just equipped as they enter teaching but continually develop as life long learners through CPL. The professional development of teachers should be a critical component of their ongoing effectiveness and satisfaction in teaching (Hughes, 1991; Ingvarson, 1998). Despite this assertion little is known about the motivations teachers may or may not have to engage in CPL.

Motivation involves the energy and drive to learn, work effectively, and achieve potential. It also plays a large part in the interest of and enjoyment of study (Martin, 2003). Much of the research related to motivation in education has been targeted at student motivation (Dowson & McInerney, 2003; Eccles & Wigfield, 1995; Martin, 2003) or at the mastery of teaching skills (Tschannen-Moran & Hoy, 2001). Research into CPL has typically focused on external factors e.g. the structure and content of CPL activities (Tom, 1999), how teachers learn (Wilson & Berne, 1999) and the impact of professional development on teachers' beliefs and practices (Desimone Porter, Garet, Yoon, & Birman, 2002; Grisham, Berg, Jacobs & Mathison, 2002; Taylor, 2002). Very little research has focused on psychological and other variables which may influence teachers' decisions to engage or not in CPL. Little is known from empirical research about the motivations teachers may or may not have to engage in CPL, especially CPL as offered through postgraduate courses.

Teacher professional learning is not normally an isolated event but a continuous and career-long process (Scribner, 1999) and a critical component of teachers' ongoing effectiveness and satisfaction in teaching (Hughes, 1991; Ingvarson, 1998). Career paths that place greater value on teachers' work will provide greater incentives for all teachers to develop toward high levels of effectiveness by participating in CPL (Ingvarson 1998).

However, teachers' professional learning needs vary over time and at different stages of their career (Fenstermacher & Berliner; 1985; Zimpher, 1988). Beginning teachers generally start their new career motivated with a desire to learn more and it is often assumed that most teachers are self-motivated, responsible professionals who are concerned about their CPL and the ability to

teach effectively (Hughes, 1991). However, some studies have shown that over time workers participate less in professional development (Schambach & Blanton, 2001).

### ***Career Stages and Professional Learning***

External motivators for CPL as expressed in the professional development literature may be often dependent on the career stage of the teacher (Scribner, 1999; p 248). Research into the lives of teachers has revealed that teachers have different attitudes and approaches, and varying levels of knowledge and skills at various stages during their careers (Lynn, 2002). Teachers' careers have been viewed as progressing through three or four sequential stages (Burden, 1982, Newman, Burden & Applegate, 1980, cited in Lynn 2002).

The Early Career Stage is usually applied to the first five years of teaching with most empirical studies identifying a period of consolidation, refining and mastery of teaching towards the end of this phase (Huberman, 1989). During the Mid Career Stage, which ranges from six to fifteen years, teachers often diversify their teaching and explore different approaches in an attempt to increase their effectiveness in the classroom. For example, teachers try out new materials, experiment with student groupings and explore different teaching and learning strategies. Sometimes teachers use new approaches in the quest for stimulation, as teachers who have taught for six to seven years begin to find sameness in their teaching. In addition studies have found that teachers in the Mid Career Phase in the 32 – 45 year age group appear to fear stagnation and may review their decision to become a teacher (Huberman, 1989). Promotion is often expected during this stage and some teachers can feel a failure if this doesn't happen.

Later Career teachers are said to be in a career wind down phase (Fessler, 1992, cited in Lynn, 2002) and appear to move from being fairly active in school affairs to become more reflective. Generally the level of career ambition decreases in this phase. Teachers can become negative in this phase and are often sceptical of changes in the education system (Peterson, 1964, cited in Huberman, 1989). Towards Retirement is a phase where teachers have often taught for over 25 years. They start to disengage themselves from teaching and rechannel their energies outside the school as they prepare for retirement.

Lynn (2002) advocates that educational leaders should view a teacher's CPL in light of their career cycle phase and provide inservice and professional growth opportunities accordingly. For example the needs of the beginning teacher in the Early Career Phase differ from that of an experienced teacher who has reached the Mid Career Stage. A study into teacher job satisfaction found that teachers with over five years experience i.e. in the Mid Career Phase, were in general dissatisfied with staff development and did not consider it relevant to their needs (Fraser, Draper &

Taylor, 1998). Lynn (2002) maintains that teachers at all career stages need support and assistance to realise their professional potential. However, often teachers do not consider professional learning relevant to their particular teaching needs.

### ***Professional Learning as Postgraduate Study***

Much of the research suggests that sustained and active exploration of larger ideas and concepts are more likely to bring about changes in teaching and learning (Hawley & Valli, 1999; Smylie, Blicer, Greenberg & Harris, 1998). Postgraduate courses normally provide in-depth study over a period of time in a particular area. It has been argued that teachers' beliefs need to be challenged to bring about change and postgraduate study normally allows candidates to explore and develop their own thinking in a particular area as well as providing challenges to beliefs and practices. Important teacher learning takes place when teachers' extant assumptions are challenged. (Ball & Cohen, 1999). Also "learning, real learning is hard work" (Wilson & Berne, 1999, p 200) and postgraduate courses are perceived by most as "real learning". In addition teachers' backgrounds are considered important in determining what they learn from professional development opportunities (Ball, 1996).

### ***Potential Motivators for Professional Learning***

A review of the professional development and motivational psychology literature identifies a number of potential motivators both intrinsic and extrinsic for educators to participate in postgraduate study.

- Pedagogical content and knowledge – professional learning motivated by the opportunity to improve teaching competencies and skills and by the acquisition of knowledge in specific subject areas (Conners, 1987; Kwakman, 2003; Scribner, 1999; Wilson & Berne, 1999);
- Serving and enabling students - professional learning motivated by the desire to relate to students more meaningfully and help them learn better (Guskey, 1986, Supovitz & Zief, 2000).
- Educational philosophy – professional learning motivated by the exploration of beliefs and values in education, and the exploration of educational issues (Knight, 1989; Justins, 2004), and motivated by the desire to reform educational practice in the school and classroom (Blunt & Yang, 2002).

- Attainment value - the value of the outcomes associated with a task or activity (Eccles & Wigfield, 2002), such as career advancement (Grzyb Jr, et al., 1998; Kwong, et al, 1997; Livneh & Livneh, 1999; Mok & Kwong, 1999).
- Family support - professional learning motivated by parental and spousal support (Fujita-Starck, 1996; Kwong, et al., 1997; Livneh & Livneh, 1999; Supovitz & Zief, 2000).
- School support - professional learning motivated by teacher release time and remuneration (Ingvarson; 1998; Scribner, 2000; Supovitz & Zief, 2000); and leadership, management, and collegial support (Corcoran & Goertz, 1995);
- School/system expectations - professional learning motivated by licensure (registration) requirements (Ingvarson; 1998; Supovitz & Zief, 2000); or school culture (Kwakman, 2003; Scribner, 1999, 2000).
- Performance avoidance goals - the desire to avoid the demonstration of a lack of ability (Martin, 2003).
- Performance approach goals - the desire to achieve in order to demonstrate superiority over others (Dowson & McInerney, 2003; Eccles & Wigfield, 2002; Pintrich, 2000).

Christian schools have a critical interest in their teachers being able to integrate their faith with their teaching so that they teach from a Christian worldview perspective. Many Christian educators contend that teachers in Christian schools should be given the opportunity through CPL to understand the Christian philosophy of the school (Edlin, 1998; Frisken, 1995). Edlin (1998) believes that one of the fundamental problems facing Christian schools is that its teachers have derived many of their beliefs and values from a secular educational system which does not have God and the Bible at the centre of its philosophy.

Edlin (1998) encourages Christian schools to provide their staff with regular professional learning on Christian philosophy and education, affirming the mandatory requirement implemented by the Association of Christian Schools International (ACSI) based in the USA that all teachers complete a philosophy of education course. Thus for teachers in Christian schools an understanding of Christian education or how Christian faith commitment and beliefs impact on teaching practice can be a potential motivator for undertaking professional learning.

Blomberg (1999) asserts that CPL is inextricably linked with curriculum development and maintains that a Christian approach to professional learning should encourage teachers to engage in critical reflection on their own practice and alternatives to it and also consider the coherence between faith commitment and beliefs about what is of educational value.

Christian Schools Australia (CSA), the largest association representing the Christian School Sector in Australia, has an affiliation of over 150 Christian schools across Australia. CSA has a commitment to CPL and regularly runs state and national conferences. One of its key goals includes “providing ongoing professional development through conferences and publications” (Christian Schools Australia, 2002).

### *Research Questions*

The lack of information on the motivations of teachers to undertake CPL and postgraduate study in particular and in addition the limited research available on teachers and CPL in the rapidly growing Christian schools sector led to the undertaking of this study. The specific research questions that were the focus of the study were:

- What motivates teachers in Christian schools to engage in postgraduate study?
- What discourages or has little relevance for teachers in Christian schools engaging in postgraduate study?

### *Method*

#### *Participants*

Five Christian schools affiliated with Christian Schools Australia, located in the south-east region of Queensland, one of the fastest population growth areas in Australia, were approached for the study. Within these five schools approximately 220 educators including principals, deputy principals, teachers, were invited to take part in the survey. Of the 230 educators surveyed responses were received from 178 participants giving a 77% response rate.

Of the 178 respondents surveyed, 78 (44%) were primary teachers, and 100 (56%) were secondary teachers. 73 (41%) were male and 105 (59%) were female. Twenty seven (15%) of the teachers surveyed were currently or anticipating enrolling in postgraduate study with eight (5%) of these teachers being primary teachers and 19 (11%) being secondary teachers.

Of the 178 teachers who completed the survey, 27 (15%) were enrolled in or anticipating enrolling in postgraduate study. Of these 27 teachers, seven were classified as being in the Early Career Stage (0 – 5 years); 15 were classified as being Mid Career (6 – 15 years), four were in the Later Career stage (16 – 25 years) and one in the Towards Retirement Stage. The largest number of teachers surveyed N= 71 (40%) were in the Mid Career Stage, closely followed by Early Career

Stage teachers N=64 (36%), a smaller number were in the Towards Retirement Stage N= 22 (12%), and the Later Career Stage had the smallest number with N= 21 (12%).

### ***Measures***

The Educators' Motivations and Attitudes towards Postgraduate Study Questionnaire (EMAPS) designed to measure the motivations of teachers to engage in postgraduate study was used. The EMAPS Questionnaire was designed to measure 18 specific factors drawn from the professional development and motivational psychology literature and included one factor relating to the particular context of the sample (i.e. Knowledge of Christian Education). The Questionnaire was in two parts. Part A gathered background information on the teacher such as their gender, age, years of teaching, age group taught etc. and Part B sought to measure the teacher's responses to the 18 factors. Each factor was measured by 6 items, randomly placed in the questionnaire, using a 7 point Likert-type rating scale with anchored end points, "1" "not at all relevant" and "7" "extremely relevant" (Johnson & Christensen, 2000). The EMAPS Scale has been described in detail elsewhere (Harvey, Sinclair & Dowson, 2005).

### ***Implementation***

A common pattern of implementation was followed at the schools. The researcher attended staff meetings of four of the five schools during February 2004 and gave a short, five minute summary of the focus of the study and the questionnaire and waited while the teachers completed the survey which took approximately 15 minutes. At the fifth school the questionnaires were taken by the principal who distributed them to staff willing to participate in the survey.

### ***Analyses***

Data were analysed using SPSS for Windows (Version 11). Analyses included confirmatory factor analysis, exploratory factor analysis, tests of reliability, and one-way ANOVAs.

Confirmatory Factor analysis was initially carried out on the 18 factors and this is described in Harvey, Sinclair & Dowson (2005). However, because of the small number of participants (N = 178) for the size of the scale, exploratory factor analysis was needed to determine whether the items attributed to the 18 factors were adequate and significant.

Exploratory factor analysis was conducted using the results of the study. The initial run identified 20 factors. A series of eight iterations reduced these initial 20 factors to 10 factors. Items with factor loadings under 0.5 were considered inadequate and disregarded. Most of the factors had at least four items, some factors had five or six items. In order to maintain consistency it was

decided that each factor would have four items. Items deleted were selected on the basis of instability whilst maintaining maximum diversity in content of the items within the scale. The ten factors together with a sample item are listed in Table 1.

**Table 1: The Ten Factors**

<b>Factor</b>	<b>Item</b>
Christian Education	I want to think more deeply about integrating my faith with my teaching.
Pedagogical Content	I want to have more knowledge and understanding of the subject(s) I teach
Serving & Enabling Students	Such study will equip me to help my students do better in class.
Educational Philosophy	I want to think more deeply about the reasons behind current educational trends.
Attainment Value	I think such study provides a pathway to career advancement.
Family Support	My family is supportive of my undertaking postgraduate study.
School Expectations	My school encourages teachers to undertake such study.
School Support	My school provides financial assistance for study.
Performance Avoidance	I am concerned that I would not do well in a postgraduate course.
Performance Approach	I like my fellow teachers to be aware of my intellectual ability

## **Results**

### **Descriptive Statistics**

A mean response score for the set of four items for each factor was generated. Results show that all factors have Cronbach's Alpha's in the range .84 to .95, indicating reasonable reliability.

**Table 2: Mean Scores for the Ten Factors**

Factors	M	SD
Christian Education	4.63	1.61
Pedagogical Content	4.58	1.59
Serving Students	4.30	1.53
Educational Philosophy	3.91	1.61
Attainment Value	3.39	1.50
Family Support	3.19	1.64
School Expectations	2.66	1.35
School Support	2.61	1.64
Performance Avoidance	2.41	1.49
Performance Approach	1.93	1.11

The mean scores as recorded in Table 2, demonstrate that teachers in this study rated Christian education, pedagogical content, serving students and educational philosophy the most relevant factors in motivating them to engage in postgraduate study. Attainment value (career advancement) and family support were rated relevant. However school expectations, school support, performance avoidance and performance approach were rated as least relevant in motivating teachers to engage in postgraduate study.

One-way ANOVAs were completed to determine whether a teacher's career stage and age group demonstrated any significant differences in the way teachers responded to the questions.

**Table3: A Comparative Factor Analysis by Career Stage (Years of teaching)**

Factor	Early Career (0- 5 years) N= 64		Mid Career (6 – 15 years) N = 71		Later Career (16 – 25 years) N = 21		Towards Retirement (over 25 years) N = 22		Anova (df)	Signifi cance (Proba bility)
	M	SD	M	SD	M	SD	M	SD		
PCON	N = 64 4.32	1.53	N = 71 4.71	1.69	N = 21 4.27	1.48	N = 22 5.23	1.44	3 (177)	.09
FAM	N = 64 3.33	1.58	N = 71 3.40	1.76	N=21 2.14	1.53	N= 22 3.09	1.51	3 (177)	.02
PAV	N=64 2.59	1.60	N=71 2.28	1.45	N= 21 2.61	1.50	N=22 2.11	1.29	3 (177)	.45
PAPPROACH	N=64 1.94	1.02	N=71 1.91	1.08	N=21 1.60	1.02	N=22 2.24	1.44	3 (177)	.32
SCHOOL	N=64 2.79	1.56	N=71 2.48	1.61	N=21 2.04	1.37	N=22 3.08	2.06	3 (177)	.13
AV	N=64 3.60	1.42	N=71 3.50	1.54	N=21 2.35	1.38	N=22 3.42	1.37	3 (177)	.01
CHRED	N= 64 4.53	1.51	N=71 4.70	1.65	N=21 4.13	1.68	N=22 5.14	1.63	3 (177)	.21
EXP	N=64 2.82	1.36	N=71 2.69	1.41	N=21 1.95	1.00	N=22 2.80	1.32	3 (177)	.07
SERV	N=64 4.40	1.46	N=71 4.27	1.53	N=21 3.67	1.71	N=22 4.64	1.50	3 (177)	.18
EDPHIL	N=64 3.75	1.54	N=71 3.94	1.70	N=21 3.51	1.47	N=22 4.70	1.43	3 (177)	.06

### **Comparative Factor Analysis by Career Stage**

A comparative factor analysis by career stage as shown in Table 3, identified two factors as statistically significant i.e.  $<.05$ , Family Support (.03) and Attainment Value (.01). Although there were strong trends in School Expectations (.07), Educational Philosophy (.06) and Pedagogical Content (.09) these were not identified as statistically significant in this study but with a larger sample size it is possible they may be statistically significant.

Teachers, who were classified as Later Career and had been teaching between 16 and 25 years, rated Family Support (family give encouragement) as low relevance to engaging in postgraduate study (M= 2.14). However, teachers who had been teaching for over 25 years and were classified as Towards Retirement rated the factor of Family Support as mildly relevant (M= 3.09); Early Career teachers, those who had been teaching for less than 6 years and Mid Career teachers, who had been teaching between 6 and 15 years rated Family Support as relevant (M=3.33) and (M = 3.40) respectively. Post Hoc comparisons using Tukey's HSD identified that there was a significant difference in the response between Later Career and Early Career teachers and also between Later Career teachers and Mid Career teachers.

Early Career teachers identified Attainment Value (e.g. career advancement) as more relevant than teachers in other stages of their careers for engaging in postgraduate study. Early Career teachers rated this factor as relevant (M=3.60). They were closely followed in the rating by Mid Career teachers (M=3.50); Towards Retirement teachers rated Attainment Value as less

relevant ( $M=3.42$ ) and Later Career teachers rated this factor as having the least relevance to engaging in postgraduate study, ( $M=2.35$ ). Post Hoc comparisons using Tukey's HSD showed that there was a significant difference in the responses between Later Career and Early Career teachers and also between Later Career and Mid Career teachers.

**Table 4: Comparative Factor Analysis across Age Groups**

Factor	20 – 30 years N=65		31 – 40 years N=49		41 – 50 years N=39		51 – over 60 years N= 25		Anova (df)	Significance (Probability)
	M	SD	M	SD	M	SD	M	SD		
PCON	N = 65 4.37	1.63	N=49 4.74	1.49	N=39 4.69	1.42	N=25 4.65	1.92	3 (177)	.60
FAM	N = 65 3.26	1.61	N=49 3.46	1.89	N=39 2.90	1.32	N=25 2.91	1.63	3 (177)	.34
PAV	N=65 2.72	1.59	N=49 2.17	1.49	N=39 2.09	1.25	N=25 2.55	1.48	3 (177)	.11
PAPPROACH	N=65 2.03	1.05	N=49 1.90	1.1.0	N=39 1.47	.80	N=25 2.42	1.43	3 (177)	.01
SCHOOL	N=65 2.78	1.53	N=49 2.41	1.53	N=39 2.52	1.83	N=25 2.72	1.84	3 (177)	.65
AV	N=65 3.77	1.40	N=49 3.60	1.56	N=39 2.81	1.41	N=25 2.92	1.46	3 (177)	.00
CHRED	N=65 4.53	1.51	N=49 4.64	1.60	N=39 4.74	1.72	N=25 4.65	1.77	3 (177)	.93
EXP	N=65 2.73	1.32	N=49 2.67	1.45	N=39 2.60	1.33	N=25 2.55	1.34	3 (177)	.94
SERV	N=65 4.30	1.44	N=49 4.50	1.64	N=39 4.23	1.57	N=25 4.00	1.53	3 (177)	.60
EDPHIL	N=65 3.91	1.58	N=49 3.91	1.62	N=39 3.91	1.62	N=25 4.22	1.80	3 (177)	.71

### **Comparative Factor Analysis across Age Groups**

A comparative factor analysis by age group identified Attainment Value (.00) and Performance Approach (.01) as two factors that were statistically significant between the age groups. The youngest teachers (20 – 30 years) rated Attainment Value (e.g. career advancement) most relevant for engaging in postgraduate study ( $M=3.77$ ); followed by teachers in the next age group (31 – 40 years) ( $M=3.60$ ) with the middle age group (41 – 50 years) rating it ( $M=2.81$ ) and the oldest group of teachers (over 60 years) rating this factor slightly higher at ( $M=2.92$ ). Post Hoc comparisons using Tukey's HSD showed that on Attainment Value there was a significant difference between the ratings of the youngest age group (20 – 30 years) and the middle age group (41 – 50 years).

Performance Approach was rated by teachers in all age groups as being least relevant in motivating them to engage in postgraduate study. Teachers in their middle years (41- 50 years) rated this factor as the least relevant ( $M=1.47$ ), closely followed by teachers in their thirties (31 – 40 years) ( $M=1.90$ ), the youngest teachers (20 – 30 years) rated this factor slightly higher ( $M=2.03$ ) and the oldest teachers (51 – over 60 years) rated this factor the highest out of the group ( $M=2.42$ ).

Post Hoc comparisons using Tukey's HSD demonstrated significant differences between the responses of teachers in the two oldest age groups to Performance Approach.

## ***Discussion***

### ***Most Relevant Motivators***

Teachers rated the following six factors most relevant in motivating them to engage in postgraduate study; Christian Education, Pedagogical Content, Serving & Enabling Students, Educational Philosophy, Attainment Value and Family Support.

### ***Christian Education***

The Association of Christian Schools International (ACSI) undertook a study related to the needs of teachers in their schools for CPL. The results of the study identified assistance in biblical worldview integration as top of the list of needs in the academic content and teaching skills category (Headley, 2003, p. 206). This result compares well with the results found in this survey with teachers from the five Christian schools ranking Christian education, the need for help to integrate their biblical faith with their teaching as the factor that would most motivate them to engage in postgraduate study. It appears that learning about Christian education is a contextual motivator that educators in Christian schools may have for undertaking postgraduate study. This aspect of integrating faith with learning has been discussed by Blomberg, (1999) and Justins (2004) as an important aspect of CPL for teachers in Christian schools.

### ***Pedagogical Content***

The factor, Pedagogical Content, was identified as a motivator for teachers in this study. By comparison the same area was identified as the greatest need for teachers in Christian schools affiliated with ACSI in the USA. The desire to acquire knowledge and skills in specific subject areas has been identified as an important need for teachers by many researchers (Connors, 1987; Kwakman, 2003; Scribner, 1999; Wilson & Berne, 1999). Pedagogical Content may be seen as an even stronger motivator for engagement in postgraduate study in the future as the *Productive Pedagogies Project* and implementation of the *New Basics* (Education Queensland, 1999) increasingly put demands on Queensland teachers during this decade.

### ***Serving and Enabling Students***

In this study teachers identified a desire to serve their students more meaningfully and help their students learn better would motivate them to engage in postgraduate study. Enabling students to do better in their studies has been identified as an important motivator for teachers engaging in CPL (Guskey, 1986, Supovitz & Zief, 2000). The concept of serving and enabling students is included within at least three of the 12 interrelated Professional Standards outlined by Education Queensland (2005). In particular, Education Queensland (2005) requires its teachers to demonstrate that they are serving and enabling students through inclusive and participatory learning experiences, integrating Information Communication Technologies to enhance student learning, and supporting the social development of students.

### ***Educational Philosophy***

Educational Philosophy, which involves the exploration of beliefs and values underlying educational issues and trends, was identified by teachers in this study as relevant in motivating them to engage in postgraduate study. Educational philosophy has been identified by Knight (1989) and Justins, (2004) as an area that teachers are interested in knowing more about. With increasing changes and trends in education such as the adoption of Professional Standards (Mayer, Mitchell, Macdonald, Land, & Luke, 2002) it is possible that interest in exploring the reasons behind educational trends will become even more relevant in motivating teachers to engage in postgraduate study.

### ***Attainment Value***

Attainment Value which relates to career advancement or a change in career was identified in this study to have some relevance in motivating teachers to undertake postgraduate study. In particular it appeared to be an important motivator for early and mid career teachers. In research with teachers relating to CPL Ingvarson (1998) identified career advancement as an important factor that would influence teachers to undertake CPL.

Mid career teachers often fear stagnation as many continue to use the same teaching approaches with the same grades. Promotion provides a new stimulation for teachers in this phase (Huberman, 1989). The Towards Retirement career stage has been described as the "Disengagement Phase" (Marsh, 2004, p 313) and participants in this phase normally put their energies into outside pursuits and preparing for retirement. Teachers at the end of their career often see little point in furthering their education as retirement looms on the horizon and this appeared to be the case in this study. The teachers in the Later Career and the Towards Retirement Stages rated attainment value

as having lower relevance in motivating them to undertake postgraduate study than teachers in the Early Career and Mid Career Stages.

### ***Family Support***

Family Support has been demonstrated to be an important motivator for engaging in CPL (Fujita-Starck, 1996; Kwong, et al., 1997; Livneh & Livneh, 1999; Suppovitz & Zief, 2000). In this study teachers who were in their early or mid career identified the relevance of family support in motivating them to engage in postgraduate study.

### ***Least Relevant Motivators***

Factors identified by the teachers in this study as having a low relevance in motivating them to engage in postgraduate study included School Expectations, School Support, Performance Avoidance, and Performance Approach,.

### ***School Support & School Expectations***

School Support and School Expectations were identified as having low relevance as motivators for teachers engaging in postgraduate study. However, it is possible that remuneration as described by Ingvarson, (1998) such as an increase in salary in recognition of a postgraduate qualification or the school paying part or all the fees would increase the relevance of these factors as motivators for teachers engaging in postgraduate study.

### ***Performance Avoidance***

The teachers in this study rated Performance Avoidance of little relevance in discouraging them from undertaking postgraduate study. It appears that the teachers would not avoid taking postgraduate study because they feared they would not perform to the required standard or lacked self confidence in their ability to study and do well. By contrast secondary school students, in a study conducted by Martin (2003), did identify that they would avoid study because they lacked the confidence that they would perform to the required standard and do well.

### ***Performance Approach***

Although Performance Approach has been identified as a significant factor among school students in wanting to do well and achieve better than their peers (Dowson & McInerney, 2003) it appeared that teachers in this study did not desire to achieve in order to demonstrate superiority

over their peers. They rated this factor as having the least relevance in motivating them to engage in postgraduate study.

### ***Limitations and Future Research***

This study was conducted in five Christian schools in the South Eastern region of Queensland. A more comprehensive study involving Christian schools in other states would add to the findings of this study. In addition a comparison of these findings with the Christian school sector in the USA may provide further data that would be of help in understanding the motivations of teachers in Christian schools to undertake postgraduate study.

The findings of this study will be analysed further with interviews undertaken with selected participants of this study in order to gain more insight into the motivations of teachers to engage or not engage in postgraduate study.

### ***Recommendations***

While some of the recommendations arising from this study relate specifically to Christian schools, the majority could be applicable to any school or tertiary institution. The following recommendations are made to assist schools and tertiary institutions in improving their support for teachers for postgraduate study and to be aware of courses that will meet teachers' needs.

#### ***Pedagogical Content***

It is recommended that schools encourage teachers to pursue courses that will assist in meeting their pedagogical needs. Christian schools should also encourage teachers to enrol in courses that will enable them to develop a good understanding of education within the context of a Christian worldview and in particular how to integrate their Christian worldview with their teaching.

In addition tertiary institutions should ensure that they are providing courses that meet the pedagogical needs of teachers, particularly courses that assist teachers in developing their knowledge of the subject content and update teachers in recent educational trends and changes. Christian tertiary institutions should also evaluate the courses which provide an understanding of a

Christian worldview and how that impacts on the philosophy and practice on education to ensure that these courses are meeting the needs of teachers in Christian schools.

### ***School Support & School Expectations***

In order to support teachers to engage in postgraduate study schools could assist teachers by paying either some or all of the course fees. Alternatively schools could provide a salary sacrifice option for teachers. By doing this schools would demonstrate how much they value and see the importance of postgraduate study in developing their teachers' professional growth.

Institutions should try to keep their fees as low as possible and provide some flexibility in payment of fees so that fees could be paid in instalments.

In addition schools could provide some teacher release time. This may involve releasing teachers from some of the one off professional development days or even part of the staff conference at the beginning of the year and reallocating this time for teachers to take for their studies.

### ***Conclusion***

The primary goal of the study was to determine what were the most important and influential factors motivating primary and secondary teachers from Christian schools, to engage in postgraduate study in secular and Christian settings. The findings of this study suggest ten factors that influence teachers' motivations to engage in postgraduate study. Six of these factors were identified as having relevance to motivating teachers to engage in postgraduate study. Four factors were identified as being of low relevance in motivating teachers to engage in postgraduate study.

Teachers desiring a better understanding of Christian Education and Pedagogical Content were identified as the most influential motivators. The perception that postgraduate study would assist with the development of the teacher's career path was also identified as relevant to motivate teachers to engage in postgraduate study. Family support, particularly for teachers in the early and mid career stages, was also relevant in motivating teachers to undertake postgraduate study

Career stage appeared to be an important discriminator for teachers' responses to the survey with teachers in the later career stages often not as motivated to engage in postgraduate study.

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