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## Early Childhood Preservice Teachers' Passion, Beliefs, and Their Sense of Teacher Efficacy

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## Early Childhood Preservice Teachers' Passion, Beliefs, and Their Sense of Teacher Efficacy

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### Abstract

*This study examined whether passion for teaching and teaching beliefs predicts preservice teachers' sense of teacher efficacy. A total of 212 pre-service teachers enrolled in early childhood teacher education programs in the Seoul metro area of South Korea participated in this study. The results of multiple hierarchical regression analyses revealed that across all sub-areas of teacher efficacy and overall teacher efficacy, preservice teachers' constructivist teaching belief was the most significant predictor, followed by harmonious passion. Obsessive passion was a significant predictor of preservice teachers' sense of teacher efficacy except for efficacy in instructional strategies. Traditional belief was not a positive predictor of preservice teachers' adaptive outcome, teacher efficacy. This study discussed educational implications for cultivating preservice teachers' harmonious passion for teaching and the teaching profession, along with the benefits of constructivist teaching belief and practice for preservice teachers with a high level of obsessive passion in order to enhance early childhood preservice teachers' sense of teacher efficacy and reduce the possible negative interaction effects of traditional teaching belief.*

**Keywords:** teaching efficacy, teaching beliefs, passion, preservice teachers, and early childhood education.

### 1. Introduction

Teaching requires commitment to and passion for the teaching profession and a high sense of teacher efficacy. Preservice teachers' sense of teacher efficacy refers to their beliefs about their ability to successfully perform teaching-related tasks (Plourde, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). That is, a high sense of teacher efficacy can be considered as desirable psychological outcomes governed by internal tendency of one's teaching beliefs and practices.

Preservice teachers undergo multiple changes in their psychological perspectives pertaining to the teaching profession throughout the teacher education program including in their teaching beliefs and their passion for teaching and attitude toward teaching profession among others (Goodfellow & Sumsion, 2000; Sinclair, Dowson, & McInerney, 2006). Studies have implied that teachers' passion for teaching and their constructivist teaching beliefs impact positively on both their sense of teacher efficacy and on students' learning (Day, 2004; Fives, Hamman, & Olivarez, 2007; Patrick, Hisley, Kempler, & College, 2000; Plourde, 2002).

The role of passion in teaching and the teaching profession and the impact of teaching beliefs on early childhood teachers' adaptive outcomes have been greatly emphasized (Day, 2004; Elliott & Crosswell, 2001; Vallerand, Fernet, & Gusy, 2008). However, little attention has been paid to early childhood preservice teachers' passion for teaching and its joint effects with teaching beliefs on their sense of teacher efficacy.

Therefore, this study examined the role of preservice teachers' passion for teaching and its joint effect with teaching beliefs in predicting early childhood preservice teachers' sense of teacher efficacy. Specific questions for the study were:

- (1) How efficacious are early childhood preservice teachers about their teaching capabilities?
- (2) Are there correlates of childhood preservice teachers' sense of teacher efficacy with their passion for teaching and teaching beliefs?
- (3) How do early childhood preservice teachers' passion and teaching beliefs predict their sense of teacher efficacy?

## **2. Literature Review**

Preservice teachers' sense of teacher efficacy is a strong indication of their passion for teaching and teaching profession; it represents their dedication to the coursework and disciplinary activities of teacher education. Both teaching efficacy and passion are grounded in the self-determination theory (Bandura, 1977, 1997). This study applied its theoretical speculations in order to understand early childhood preservice teachers' adaptive psychological outcomes such as sense of teaching efficacy, teaching beliefs, and their passion for teaching profession.

### **2.1 Passion and Sense of Teacher Efficacy**

In addition to the self-determination theory, Vallerand et al. (2003) conceptualization of passion was considered to understand early childhood preservice teachers' approaches to the process of teacher preparation. According to them, "passion is a strong inclination or desire toward an activity (e.g., one's job) that one likes (or even loves) and finds important and in which one invests time and energy" (p. 977). Vallerand et al. (2003) identified two types of passion based on the self-determination theory, namely, harmonious passion and obsessive passion, depending on the process of internalization that relates to one's identity. While harmonious passion emanates from autonomous internalization rooted in an intrinsic tendency of the self, obsessive passion results from controlled internalization of the activity into one's identity (Deci & Ryan, 2000; Ryan & Deci, 2003). Several studies have reported the impact of passion on positive and adaptive outcomes, both in student learning and in teaching, in various ways (Fives, Hamman, & Olivarez, 2007; Plourde, 2002; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk & Hoy, 1990). Thus, it is conceivable that these two types of passion may have positive or negative effects on preservice teachers' sense of teaching efficacy.

It has been well documented that teachers' beliefs relate to their classroom practice (Fang, 1996; Thompson, 1992). According to Thompson (1992), teachers' belief systems are developed and reconstructed as they evaluate their beliefs against their experiences and the contexts in which they are situated. Therefore, preservice teachers' teaching beliefs can be considered as the reflection of their sense of teacher efficacy in teaching children in education settings. Teachers' practices are differentiated according to their degree program and their perspectives on learning and teaching (Buchanan, Burts, Bidner, White, & Charlesworth, 1998; File & Gullo, 2002; Smith, 1997). It is evident that early childhood preservice teachers' sense of efficacy has a meaningful implication for their practices and application of subject knowledge in early learning and development (Fives, Hamman, & Olivarez, 2007; Woolfolk & Hoy, 1990).

### **2.2 Teaching Beliefs and Preservice Teachers' efficacy**

In early childhood education, many studies support constructivist beliefs over traditional teaching beliefs across all subject matters (Guthrie et al., 2004; Hmelo-Silver, Duncan, & Chinn, 2007; Kim, 2005). Developmentally appropriate practice (DAP), theoretically grounded in the constructivist perspective, is an important philosophical and pedagogical guideline in early childhood education (ECE) through the primary grades (e.g., up to third grade) that particularly stresses age, individual, and cultural differences in curriculum planning for young learners (Charlesworth, et al., 1993). The majority of early research on teaching practices in ECE focused on whether some aspects of a class or a teacher's characteristics are related to the use of DAP prior to kindergarten age. The third modification of the DAP guidelines (Copple & Bredekamp, 2009) seems to well include the above issues, especially for cultural differences, which were not fully considered in its first two versions. Constructivist belief showed an association with teachers' adaptive outcomes such as teaching efficacy and student learning in the Korean context (e.g., Kim & Kim, 2007; Kwak, 2008; Suh & Suh, 2009).

In fact, constructivist teaching belief and practice is considered the most effective teaching perspective and is strongly recommended in the area of early childhood education. Contrast to the constructivist teaching beliefs, traditional teaching beliefs emphasize the authoritative teachers' role in student learning and moral education (Bryant, Clifford, & Peisner, 1991). Unlike teachers with constructivist teaching beliefs and practices, teachers with traditional teaching beliefs and practices are most likely to possess authoritarian patterns of interacting with their students presenting a top-down approach in their teaching and other teaching related tasks.

Taken together, despite the considerable body of research that has focused on teachers' beliefs and best teaching practices (Alger, 2009; Barcelos, 2003; Lim & Chan, 2007; Thomas & Pedersen, 2003), there is limited research focused on early childhood preservice teachers' experience in teacher education program in terms of their passion for teaching and teaching beliefs and its joint effects on their sense of teaching efficacy. Thus, this study examined how passion for teaching and their preparation (harmonious vs. obsessive) and their teaching beliefs (constructivists' vs. traditional) predicts early childhood preservice teachers' sense of teacher efficacy in student engagement, instructional engagement, and classroom management.

Based on extant literature, this study endorses that both harmonious passion for teaching and constructivist belief are positively associated with early childhood preservice teachers' sense of teacher efficacy in student engagement, instructional Strategy, and classroom management. On the other hands, this study expects that both obsessive passion for teaching and traditional belief are negatively associated with early childhood preservice teachers' sense of teacher efficacy or not significantly associated with their sense of teacher efficacy.

### **3. Methods**

#### **3.1 Sample**

This study included a total of 212 preservice teachers enrolled in early childhood programs in 4-year colleges in Korea. All participants were female and ranged in age from 19 to 29 years ( $M = 20.86$ ,  $SD = 1.18$ ).

#### **3.2 Instrumentations**

##### **Preservice teachers' sense of teacher efficacy (TSES)**

The present study used Tschannen-Moran and Woolfolk Hoy (2001)' sense of teacher-efficacy short form. The TSES has been widely used in research with both preservice teachers and teachers in the field of education with adequate construct validity and reliability (Tschannen-Moran & Hoy, 2001). This measure contains 3 subscales: student engagement (SE), instructional strategy (IS), and classroom management (CM). Each construct consists of 4 items that assess the degree to which preservice teachers feel efficacious about their teaching abilities. To adapt the TSES to suit the purposes of the present study, all 12 items were reworded to represent preservice teachers' efficacy, in the specific areas of student engagement, instructional strategy, and classroom management. Sample items for TSES are as follows: "How much can you do to motivate students who show low interest in school?" (student management); "To what extent can you craft good questions for your students?" (instructional strategy); "How much can you do to control disruptive behavior in the classroom?" (classroom management). All items used a 7-point Likert scale, from "Not at All (1)" to "A Great Deal (7)". The Cronbach's alpha values for SE, IS, and CM were .84, .88, and .86, respectively.

##### **Preservice teachers' passion for teaching**

The present study used the Passion Scale (Vallerand et al., 2003) that contains two sections, harmonious and obsessive passion, with six-items each. To fit the sample, preservice teachers, we modified teacher to preservice teacher. The Cronbach's alpha values for harmonious and obsessive passion were .90 and .77, respectively, showing better internal reliabilities in both subscales than Vallerand et al.'s study, with .87 and .67, respectively (see Table 1). Some of words were modified to fit the sample of preservice teachers. Sample items for passion are as follows: "My status and work as a teacher candidate is well integrated in current my life." (harmonious passion); "My status and job a teacher candidate is so exciting that I sometimes lose control over it." (obsessive passion). The Cronbach's alpha values for these two subscales were .90 and .66, respectively. The sample for this study showed a better internal reliability in harmonious passion and a lower one in obsessive passion than Vallerand et al.'s study, with .87 and .67 respectively (see Table 1).

### Teaching beliefs

The Teacher Beliefs Survey (TBS) developed by Woolley, Benjamin, and Woolley (2004) was used to gauge preservice teachers' teaching beliefs. This study only used 24 items to gauge constructivist teaching beliefs and traditional teaching beliefs.

Each construct was comprised of 12 items and all items were rated by a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items for teaching beliefs are as follows: "I believe that expanding on students' ideas is an effective way to build my curriculum." (constructivist teaching beliefs); "I base student grades primarily on homework, quizzes, and tests." (traditional teaching beliefs). The Cronbach's alpha values for constructivist teaching beliefs and traditional teaching beliefs were .94 and .88, respectively. All measures were scored on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The present study used mean scores of all scales in our analyses.

**Table 1. Preservice Teachers' Passion for Teaching Constructs, Items, and Internal Consistency**

Construct	12 Passion Items; $\alpha = .89$
Harmonious passion (6 items: $\alpha = .90$ )	My job as a teacher candidate is in harmony with the other activities in my life. The new things that I discover doing my job as a teacher candidate allow me to appreciate it even more. My status and work as a teacher candidate reflects the qualities I like about myself. My status and work as a teacher candidate allows me to live a variety of experiences. My status and work as a teacher candidate is well integrated in current my life. My status and work as a teacher candidate is in harmony with other things that are part of me.
Obsessive passion (6 items: $\alpha = .77$ )	I have difficulties controlling my urge to do my job as a teacher candidate. I have almost an obsessive feeling for my job as a teacher candidate. My status and work as a teacher candidate is the only thing that really turns me on at this time. If I could, I would only do my job as a teacher candidate at this time. My status and job a teacher candidate is so exciting that I sometimes lose control over it. I have the impression that being a teacher candidate controls me.

### 3.3 Data analysis

Descriptive statistics were performed to examine preservice teachers' sense of teacher efficacy. Pearson's correlation analysis was also performed to examine relations among major variables. In order to predict the power of the independent variables, passion for teaching and teaching beliefs, on the dependent variable, the sense of teacher efficacy, this study employed multiple hierarchical linear regression analyses. The violation of multicollinearity was checked by examining tolerance and the Variance Inflation Factor (VIF) using two collinearity diagnostic factors, an individual R-square value and a VIF. The observed data were good to employ in the aforementioned analysis.

## 4. Results

The results of descriptive statistics showed that on a 7-Likert scale, our preservice teachers showed a high sense of teacher efficacy across all three subscales. Preservice teachers' sense of teacher efficacy in student engagement ( $M = 4.02$ ,  $SD = 1.12$ ) was the highest among the three subscales of teacher efficacy. Overall, the preservice teachers were more harmoniously passionate ( $M = 4.02$ ,  $SD = 1.12$ ) in their preparation for the teaching profession and better in constructivist belief ( $M = 4.02$ ,  $SD = 1.12$ ) than their counterparts in traditional belief ( $M = 3.65$ ,  $SD = 1.12$ ).

### 4.1 Correlations among major variables

Pearson’s correlation analysis was conducted to see how early childhood preservice teachers’ sense of teaching efficacy was related to their passion for teaching and teaching profession as well as teaching beliefs. Harmonious passion was positively related with constructivist belief ( $r = .31, p < .01$ ), and sense of teacher efficacy ( $r = .32, p < .01$ ) including all three subscales in student engagement (SE:  $r = .50, p < .01$ ), instructional strategies (IS:  $r = .51, p < .01$ ), and classroom management (CM:  $r = .46, p < .01$ ).

Obsessive passion was positively related with constructivist belief ( $r = .31, p < .01$ ) and traditional belief ( $r = .37, p < .01$ ). Obsessive passion had a better relation with traditional belief than constructivist belief (see Table 2).

**Table 2. Correlations among Passion for Teaching, Teaching Beliefs, and Preservice Teachers’ Sense of Teacher Efficacy (N=212)**

Variables	1	2	3	4	5	6	7	8	9
1. Harmonious passion		1	.68**	.31**	.32**	.50**	.51**	.46**	.52**
2. Obsessive passion			1	.31**	.37**	.46**	.45**	.51**	.51**
3. Constructionist beliefs				1	.62**	.47**	.44**	.36**	.46**
4. Traditional beliefs					1	.29**	.33**	.30**	.33**
5. STE: Student management						1	.83**	.78**	.93**
6. STE: Instructional strategy							1	.76**	.93**
7. STE: Class management								1	.92**
8. Total Sense of Teacher Efficacy									1
<i>n</i>	208	206	206	211	211	210	210	210	210
<i>M</i>	4.12	4.02	3.65	4.97	4.15	4.49	4.33	4.06	4.29
<i>SD</i>	1.26	1.12	1.03	.79	.73	.98	1.07	1.06	.96

Note. STE = sense of teacher efficacy. \*  $p < .05$ , \*\*  $p < .01$ . 2-tailed.

#### 4.2 Predictors of Preservice Teachers’ Sense of Teacher Efficacy in Student Engagement, Instructional Strategies, and Classroom management

To predict preservice teachers’ sense of teacher efficacy, this study entered harmonious passion and obsessive passion at the first step, followed by constructivist belief and traditional belief, at the second step. This study performed multiple hierarchical regression analysis for preservice teachers’ sense of teacher efficacy in student engagement, instructional strategies, and classroom management. The result of the hierarchical analysis on preservice teachers’ sense of efficacy in student engagement revealed that about 38.4% variability in preservice teachers’ sense of efficacy in student engagement can be explained by constructivist belief ( $t = 5.715, p < .001$ ), followed by harmonious passion ( $t = 3.737, p < .001$ ) and obsessive passion ( $t = 2.324, p < .05$ ). Traditional belief was not a statistically meaningful predictor but had a negative impact on teacher efficacy in student engagement ( $t = -1.799, p > .05$ ) (see Table 3).

The result of the hierarchical analysis on preservice teachers’ sense of efficacy in instructional strategies ( $F = 29.148, p < .001$ ) showed that adding constructivist belief and traditional belief increased the predictability of preservice teachers’ sense of teacher efficacy in instructional strategies by 9.2%, explaining 36.8% of preservice teachers’ sense of teacher efficacy in instructional strategies. Among the predictors, constructivist belief ( $t = 4.639, p < .001$ ) was the most significant predictor, followed by harmonious passion ( $t = 4.274, p < .001$ ). Obsessive passion ( $t = 1.504, p > .05$ ) and traditional belief ( $t = -.398, p > .05$ ) were not significant predictors of preservice teachers’ sense of teacher efficacy in instructional strategies. The result of the hierarchical analysis showed that 40.2% predictability for preservice teachers’ sense of teacher efficacy in classroom management ( $F = 33.642, p < .001$ ). In contradiction to traditional belief ( $t = -.905, p > .05$ ), constructivist belief ( $t = 4.859, p < .001$ ), harmonious passion ( $t = 3.701, p < .001$ ), and obsessive passion ( $t = 2.988, p < .01$ ) were significant predictors of preservice teachers’ sense of teacher efficacy in classroom management.

Overall, the hierarchical regression analysis showed that preservice teachers' sense of teacher efficacy in student engagement, instructional strategies, and classroom management were significantly predicted by constructivist belief and harmonious passion. Except for preservice teachers' sense of teacher efficacy in instructional strategies, obsessive passion was also a significant predictor of preservice teachers' sense of teacher efficacy. Across the teacher efficacy subscales, traditional belief was not a significant predictor of preservice teachers' sense of teacher efficacy. The regression analysis implied that there are interaction effects of traditional belief with other predictors on teachers' sense of teacher efficacy, decreasing preservice teachers' sense of teacher efficacy in all three categories.

**Table 3. Hierarchical Multiple Regression Analyses Predicting Early Childhood Preservice Teachers' Sense of Efficacy in Student Engagement, Instructional Strategies, and Classroom management**

	Step	Predictor	$\beta$	$t$	$VIF$	$F$	$R^2(\Delta)$
Student Engagement	1	Harmonious passion	.341	4.136 <sup>***</sup>	1.887	38.048 <sup>***</sup>	.274
		Obsessive passion	.227	2.755 <sup>**</sup>	1.887		
	2	Harmonious passion	.287	3.737 <sup>***</sup>	1.919	31.165 <sup>***</sup>	.384 (.110)
		Obsessive passion	.182	2.324 <sup>*</sup>	1.997		
		Constructivist Beliefs	.411	5.715 <sup>***</sup>	1.680		
		Traditional Beliefs	-.132	-1.799	1.749		
Instructional Strategies	1	Harmonious passion	.386	4.693 <sup>***</sup>	1.887	38.620 <sup>***</sup>	.277
		Obsessive passion	.180	2.192 <sup>**</sup>	1.887		
	2	Harmonious passion	.333	4.274 <sup>***</sup>	1.919	29.148 <sup>***</sup>	.368 (.092)
		Obsessive passion	.119	1.504	1.997		
		Constructivist Beliefs	.338	4.639 <sup>***</sup>	1.680		
		Traditional Beliefs	-.030	-.398	1.749		
Classroom Management	1	Harmonious passion	.196	2.393 <sup>*</sup>	1.887	40.009 <sup>***</sup>	.284
		Obsessive passion	.279	4.634 <sup>***</sup>	1.887		
	2	Harmonious passion	.162	2.011 <sup>*</sup>	1.919	23.624 <sup>***</sup>	.328 (.037)
		Obsessive passion	.342	4.157 <sup>***</sup>	1.997		
		Constructivist Beliefs	.220	2.908 <sup>**</sup>	1.680		
		Traditional Beliefs	-.028	-.365	1.749		

Note.  $R^2(\Delta)$  = Change in  $R^2$ ; Tol. = Tolerance;  $VIF$  = Variance Inflation Factor.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

### 4.3 Early Childhood Preservice Teachers' Overall Sense of Teacher Efficacy

The final model was significant ( $F = 33.642, p < .001$ ), explaining 40.2% of the preservice teachers' sense of teacher efficacy by the predictors. Among the predictors, constructivist belief ( $t = 4.859, p < .001$ ) was the most significant, followed by harmonious passion ( $t = 3.701, p < .001$ ) and obsessive passion ( $t = 2.988, p < .01$ ), respectively. Like the outcomes from analyses in the subcategories in teacher efficacy, traditional belief ( $t = -.905, p > .05$ ) was not a significant predictor of preservice teachers' sense of teacher efficacy (see Table 4).



**Table 4. Hierarchical Multiple Regression Analysis Predicting Early Childhood Preservice Teachers' Sense of Teacher Efficacy**

Step	Predictor	$\beta$	$t$	<i>VIF</i>	$F$	$R^2(\Delta)$
1	Harmonious passion	.330	4.131***	1.887	46.704***	.316
	Obsessive passion	.282	3.528***	1.887		
2	Harmonious passion	.280	3.701***	1.919	33.642***	.402 (.086)
	Obsessive passion	.231	2.988**	1.997		
	Constructivist Beliefs	.344	4.859***	1.680		
	Traditional Beliefs	-.065	-.905	1.749		

Note.  $R^2(\Delta)$  = Change in  $R^2$ ; Tol. = Tolerance; *VIF* = Variance Inflation Factor.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

### 5. Discussion

This study examined the role of preservice teachers' passion for teaching and its joint effect with constructivist beliefs in predicting early childhood preservice teachers' sense of teacher efficacy. Correlates of childhood preservice teachers' sense of teacher efficacy with their passion for teaching and constructivist beliefs were also examined. To answer these research questions, using SPSS 20, this study analyzed 212 pre-service teachers enrolled in early childhood teacher education programs in the metro area of Seoul Korea.

First, the results of Pearson's correlation analysis showed both harmonious passion and obsessive passion were positively related with preservice teachers' overall sense of teacher efficacy including all three subscales in student engagement, instructional strategies, and classroom management. This result adds additional insight of passion on adaptive psychological outcomes to the extant literature in teaching profession. The preservice teachers participated in this study showed not only harmonious passion but also obsessive passion can produce positive outcomes. In other words, this result supports the extant studies that have reported the positive impacts of passion on adaptive outcomes, both in student learning and in teaching, in various ways (Day, 2004; Dlugos & Friedlander, 2001, Kim, 2013; Patrick et al., 2000; Vallerand et al., 2006) even though the result does not necessarily endorsed the negative influence of obsessive passion on preservice teachers' sense of teacher efficacy.

When focused to the association between passion and teaching beliefs only, it is evident that obsessive passion had a close relation with traditional belief than constructivist belief. This result supports the positive effects of harmonious passion on adaptive outcomes including constructive belief among preservice teachers (Kim, 2013). This result also implies that there may be negative effects of obsessive passion on teaching through the strong relations between obsessive passion and traditional teaching beliefs, which can be considered as negative attribute among preservice teachers in early childhood education. In turn, as constructivist teaching beliefs and its practices are supported in early childhood education, the results were corresponding to the extant positive implications of developmentally appropriate practices (constructivist teaching beliefs).

Second, the results of hierarchical regression analyses on the effect of passion, teaching beliefs and their interaction on across all sub-areas of teacher efficacy and overall teacher efficacy suggest that preservice teachers' constructivist teaching belief developed during their teacher preparation was the most significant predictor, followed by harmonious passion. This outcome supports the benefits of developmentally appropriate practice in early childhood as the best teaching practice which positively influences preservice teachers' psychological adjustment in their teaching later in their teaching profession (Thompson, 1992). Results also revealed that both harmonious passion and obsessive passion were significant predictors of preservice teachers' sense of teacher efficacy when controlling for preservice teachers' teaching beliefs. However, when considered constructive belief and traditional belief, especially in instructional strategies, this study detected a possible negative interaction effect of obsessive passion with traditional belief. Moreover, even though it was not statistically significant, traditional belief negatively influenced preservice teachers' sense of teacher efficacy in sub-areas and in the overall sense of teacher efficacy. Again, this result supports the positive effects of constructivist teaching beliefs and harmonious passion on early childhood preservice teachers' sense of teacher efficacy.

Based on the results, this study suggests educational implications for effective teacher education. First, this study suggests that teacher education should pay more attention to preservice teachers' passion for teaching and the teaching profession. Since one of most important adjustment outcomes for teachers, teaching efficacy seems to be associated with their passion for teaching through enhancing constructivist teaching beliefs. This can be done by guiding them to balance their college life and academic work in the teacher education and it can be achieved by the enhancement of harmonious passion during their teaching profession. Prompting preservice teachers to create a supportive social network may be beneficial for them to collaboratively work with their peers, cooperating teachers, and university supervisors. It would enable preservice teachers to enhance effectiveness of practical field experience and dedicate their college lives in more vivid and constructive ways.

Second, this study also suggests that teacher education programs should stress the benefits of constructivist teaching belief and practice for early childhood preservice teachers with a high level of harmonious passion in order to enhance their sense of teacher efficacy. This can be done by empowering them to manage their academic workload in connections to their cohorts as possible as it can be so that preservice teachers can build collective efficacy during their teacher preparation. Regular professional development opportunities and practical teaching opportunities through rich field experiences at sites may enhance preservice teacher's efficacy in constructivists' teaching practices. These will also enable them to learn how to effectively connect theories in to practices and to support each other to be more active in and passionate for teaching and their teaching profession in the future.

## **References**

- Alger, C. (2009). Secondary teachers' conceptual metaphors of teaching and learning: Changes over the career span. *Teaching and Teacher Education, 25*(5), 743-751.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.
- Barcelos, A.M.F. (2003). Researching beliefs about SLA: A critical review. In P. Kalaja & A.M.F. Barcelos (Eds.), *Beliefs about SLA: New research approaches* (pp. 7-33). Dordrecht: Kluwer.
- Bryant, D. M., Clifford, R. M., & Peisner, E. S. (1991). Best practices for beginners: Developmentally appropriateness in kindergarten. *American Educational Research Journal, 28*(4), 783-803.
- Buchanan, T., Burts, D., Bidner, J., & White, V.F. (1998). Predictors of the developmental appropriateness of the beliefs and practices of first, second, and third grade teachers. *Early Childhood Research Quarterly, 13*(3), 459-483.
- Charlesworth, R., Hart, C. H., Burts, D. C., Thomasson R. H., Mosley, J., & Fleege, P. O. (1993). Measuring the developmentally appropriateness of kindergarten teachers' beliefs and practices. *Early Childhood Research Quarterly, 8*(3), 255-276.
- Copple, C., & Bredekemp, S. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. Washington, DC: National Association for the Education of Young Children
- Day, C. (2004). *A passion for teaching*. London: Routledge Falmer.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and the "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268.
- Dlugos, R. F., & Friedlander, M. L. (2001). Passionately committed psychotherapists: A qualitative study of their experience. *Professional Psychology: Research and Practice, 32*(3), 298-304.
- Elliott, B., & Crosswell, L. (2001). Commitment to teaching: Australian perspectives on the interplays of the professional and the personal in teachers' lives. Paper presented at the International Symposium on Teacher Commitment at the European Conference on Educational Research, Lille, France.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research, 38*(1), 47-65.
- File, N., & Gullo, D. F. (2002). A comparison of early childhood and elementary education students' beliefs about primary classroom teaching practices. *Early Childhood Research Quarterly, 17*(1), 126-237.
- Fives, H., Hamman, D., & Olivarez, A. (2007). Does burnout begin with student teaching? Analyzing efficacy, burnout, and support during the student-teaching semester. *Teaching and Teacher Education, 23*(6), 916-934.
- Freudenberger, H. J. (1985). Impaired clinicians: Coping with burnout. In P. A. Keller (Ed.), *Innovations in clinical practice: A source book 3*. Sarasota, FL: Professional Resource Exchange.

- Goodfellow, J., & Sumsion, J. (2000). Transformative pathways: Field-based teacher educators' perceptions. *Journal of Education for Teaching, 26*(3), 245-257.
- Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K., C., Taboada, A., Davis, M., H., Scaffiddi, N. T., & Tonks, S. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction. *Journal of Educational Psychology, 96*(3), 403-423.
- Hmelo-Silver, C., Duncan, R., & Chinn, C. (2007). Scaffolding and achievement in problem-based and inquiry-learning: A response to Kirschner, Sweller, and Clark (2006). *Educational Psychologist, 42*(2), 99-107.
- Hoy W. E., & Woolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. *Elementary School Journal, 93*(4), 335-372.
- Kim, H. (2013). Passion on teaching beliefs and efficacy. *Academic Exchange Quarterly, 17*(4), 20-27.
- Kim, J. S. (2005). The effects of a constructivist teaching approach on student academic achievement, self-concept, and learning strategies. *Asia-pacific Educational Review, 6*(1), 7-19.
- Kim, S., & Kim, J. (2007). Early childhood teachers' perceptions and classroom practices of cooking activities based on the constructivist teaching. *Early Childhood Education Study, 27*(5), 313-333.
- Kwak, H. (2008). The position of a constructivist teacher in a classroom community. *Early Childhood Education Study, 28*(4), 289-312.
- Lim, C.P., & Chan, B.C. (2007). Micro lesson in teacher education: Examining pre-service teachers' pedagogical beliefs. *Computers and Education, 48*(3), 474-495.
- Patrick, C., Hisley, J., Kempler, T., & College, G. (2000). What's everybody so excited about? : The effects of teacher enthusiasm on student motivation and vitality. *Journal of Experimental Education, 68*(3), 217-236.
- Plourde, L.A. (2002). The influence of student teaching on pre-service elementary teachers' science self-efficacy and outcome expectancy beliefs. *Journal of Instructional Psychology, 29*(4), 245-253.
- Rousseau, F. L., Vallerand, R. J., Ratelle, C. F., Mageau, G. A., & Provencher, P. J. (2002). Passion and gambling: On the validation of the Gambling Passion Scale (GPS). *Journal of Gambling Studies, 18*(1), 45-66.
- Ryan, R. M., & Deci, E. L. (2003). On assimilating identities to the self: A self-determination theory perspective on internalization and integrity within cultures. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 255-273). New York: Guilford Press.
- Sinclair, C., Dowson, M., & McInerney, D. (2006). Motivations to teach: Psychometric and longitudinal perspectives. *Teachers College Record, 108*(6), 1132-1154.
- Sinclair, C., Munns, G., & Woodward, H. (2005). Get real: making problematic the pathway into the teaching profession. *Asia-Pacific Journal of Teacher Education, 33*(2), 209-222.
- Smith, K. E. (1997). Student teachers beliefs about developmentally appropriate practice: Pattern, stability, and the influence of locus of control. *Early Childhood Research Quarterly, 12*(2), 221-243.
- Suh, H & Suh, Y. (2009). Constructivism-based instruction in early childhood teacher-training classes. *Early childhood education Study, 29*(3), 165-190.
- Thomas, J.A., & Pedersen, J.E. (2003). Reforming elementary science teacher preparation: What about extant teaching beliefs? *School Science and Mathematics, 103*(7), 319-330.
- Thompson, A. G. (1992). Teachers' beliefs and conceptions: A synthesis of the research. In D. A. Grouws (Ed.), *Handbook of research on mathematics teaching and learning: A project of the National Council of Teachers of Mathematics* (pp. 127-146). New York, NY, England: Macmillan Publishing Co, Inc.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805.
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratella, C. F., Leonard, M., & Gagne, M. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology, 85*(4), 756-767.
- Vallerand, R. J., Fernet, C., & Guay, C. (2008). The role of passion for teaching in intrapersonal and interpersonal outcomes. *Journal of Educational Psychology, 100*(4), 977-987.
- Vallerand, R. J., & Houliort, N. (2003). Passion at work: Toward a new conceptualization. In D. Skarlicki, S. Gilliland, & D. Steiner (Eds.), *Social issues in management* (Vol. 3, pp. 175-204). Greenwich, CT: Information Age.
- Vallerand, R. J., Rousseau, F. L., Grouzet, F. M. E., Dumais, A., & Grenier, S. (2006). Passion in sport: A look at determinants and affective experiences. *Journal of Sport & Exercise Psychology, 28*(4), 454 - 478.
- Woolfolk, A.E., & Hoy, W.K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82*(1), 81-91.
- Woolley, S. L., Benjamin, W., & Woolley, A. W. (2004). Construct validity of a self-reported measure of teacher beliefs related to constructivist and traditional approaches to teaching and learning. *Educational and Psychological Measurement, 64*(2), 319-331.