A Five-Year Study: A Field-Related Course and Early Childhood Teacher Candidates' Self-efficacy

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This Study explored the relationship between a field-related course and Early Childhood teachers' teaching self-efficacy beliefs. More specifically, this study investigated how a field-based course inspires prospective teachers to cultivate their teaching self-efficacy beliefs and practice research-based teaching in real classrooms. The data was collected through a fifteen-item survey, participants' field entries, action research field report, and a short-answer cumulative questionnaire.

The data analysis reveals that the field-related courses help prospective teachers to gain deeper understanding of the complex teaching and learning profess; promote candidates' research-based instruction, enable them to explore the critical relationship among curriculum, teaching strategies and learners, and inspire them to build their teaching self-efficacy beliefs. All this greatly increase the chance of successful completion of clinical practice (99 %), immediate hiring 67.7% and the successful first year teaching completion (100 %).

Key words: action research, inquiry, holistic teaching method, teaching self-efficacy beliefs

Introduction

A great number of teacher education researchers have devoted themselves to explore whether education core courses with field components enable teacher candidates to increase their self-efficacy beliefs in teaching. However, limited literature

exists on to what extent such courses can help teacher candidates improve their observation, listening, and inquiring skills and how such courses help them improve their ability to reflect their planning and teaching, understand student learning, respond to student learning, and enhance teaching self-efficacy beliefs The purpose of this study was to explore the effective ness of action research course to be offered in a teacher education preparation program on teacher candidates' teaching self-efficacy beliefs. Specifically, this study aims to address how a research class with heavy field components, as a teacher training tool, has helped teacher candidates to become good listeners, observers, and metacognitive thinkers in the field.

The No. 1 goal or mission for any educational program is to prepare learner-centered inquiring professional. When teachers reflect their own teaching from researchers' point of view can they conduct authentic teaching and provide holistic teaching to their students (Liu & Doverspike, 2007). Action research has been considered and adopted as an effective method for in-service teachers' professional development and graduate students' growth into qualified teacher professionals. The reason is that action research is believed to have the power which enables teachers or graduate students to collaborate in reviewing their practice, become awareness of their own perspectives of classroom performance, try out new instructional strategies, and examining the changes in their student learning outcomes (Elliot, 1991). Research findings suggest a high correlation between action research and teacher efficacy. Teachers who conduct action research in their practice tend to be more creative, open-minded, positive and holistic, compared to those who live with old traditional way of

teaching. All these characteristics are considered to be solid evidence for high teaching self-efficacy beliefs.

Action research is research conducted by classroom teachers for the purpose of improving student learning. When a classroom teacher identifies an area that his/her students are struggling, this teacher will take into the matter, develop a plan and work with students. As the teacher is working with students, he/she will collect data, analyze the data to see if the plan works well. In order to do this, the teacher has to be a critical thinker, keen observer, planning developer and researcher. It has long been recognized as a promising method for in-service teachers' successful professional development. But can it be invaluable to teacher candidates as well? Will it be used to sharpen teacher candidates' holistic teaching skills? Will it help teacher candidates to increase their teaching self-efficacy? The purpose of this study is to examine the impact of this field-related course on early childhood teacher candidates as they are pursuing their careers as teachers. Further, this study will explore the relationship among action research, holistic teaching, and teaching self-efficacy beliefs

Theoretical Framework

Darling-Hammond (2006) advocated that teacher education programs and units must produce field-based practicum and learner-centered inquiring professionals for schools. Research findings indicated that teachers with high self-efficacy know what to teach, how to teach it, and are willing to teach in differentiated instructional strategies to meet the diverse needs of their students (Gibson Dembo, 1984; Woolfolk Hoy, 2006). It is well-knoqn that theories provide frame of references. Nature of action research, self-

efficacy, teaching self-efficacy, and the Holistic Teaching model formed the basis of theorectical framework for this study.

Action Research

Action Research, as its name suggests, is to solve a problem by taking actions. a systematic inquiry conducted by professionals who have a vested interest in gathering information about how they teach and how their students learn. Action research is a powerful process for professional growth and development; its unique structure enables teachers to function as teacher researches who do critical reflection on their own practice and make it a natural part of teaching and learning (Entler, 2010). Throughout the process, teaching professionals will conduct active observation to identify a problem in student learning, make deep thinking of how to solve the problem, act on the plans that they made. Holly et al (2005) pointed out that action research is a form of inquiry designed to improve one's own teaching by using informal eyes to critique his/her own practice. Throughout the process, the teacher researchers need to constantly look at what they have been doing, analyze the effectiveness of the strategies they have been using, make new plans and act on them. By doing this, they will become more and more critical of their own teaching performance and interested in finding new ways to enhance their student learning. Watts (1985) believed that teachers will perform more effectively and authentically if they can identify relevant issues on their teaching and their student learning; they can target the problem accurately and in time if they examine their own work and adjust accordingly. In addition, Watts posited that through action research, teacher researchers can work collaboratively so that they help, support,

and encourage one another. Besides, action research practice will enable them to be more and more sharpened in their inquiring, thinking and problem-solving skills. The more successful they are in such a research, the more confidence they will become.

Self-Efficacy

As Bandura (1997) pointed out, self-efficacy is a person's beliefs about his/her capabilities to produce designated levels of performance that exercise influence over events that affect his/her life. Self-efficacy is a future-oriented belief about the level of competence a person expects he or she will display in a given situation. Self-efficacy beliefs promote thought patterns and emotions that support actions in which a person applies substantial effort in pursuit of goals, perseveres in the face of harsh situations, recovers from temporary setbacks, and puts into effect some control over life events (Bandura, 1986, 1993, 1997).

Self-efficacy beliefs determine how a person feels, thinks, motivates himself/herself and reacts via four major processes: cognitive, motivational, affective, and selection processes (Bandura, 1986; Parajes, 1998). How a student judges his/her own ability affects his/her self-efficacy beliefs. His/her self-efficacy beliefs affect how he/she motivates himself/herself to respond a particular situation. Students who have low self-efficacy beliefs in their mathematic abilities may give up easily at the time of failure. On the contrary, students who have high mathematic self-efficacy beliefs would be more likely to persevere. Instead of giving up, they will generally quickly discard faulty strategies, seek more effective methods, do work more accurately, and

demonstrate more positive attitude toward their unpleasant experiences (Collins, 1982 March). These students attribute their failure to anything but their abilities.

In his study, Bandura (1986) explained in detail how people judge their capabilities based on their self-efficacy beliefs. As he stated, self-efficacy is "people's judgments of their capabilities to organize and execute courses of actions required to attain designated types of performance (p. 391)." A strong sense of self-efficacy enhances human accomplishment and personal well-being in many ways (Bandura, 1994). People with a high sense of self-efficacy approach demanding tasks as challenges to be mastered while people with a low sense of self-efficacy try to shy away from difficult tasks because they view them as their personal threats. In the face of failure, people with a high sense of self-efficacy will tend to amplify and continue their efforts to reach a goal. In contrast, people with a low sense of self-efficacy will tend to linger on their personal deficiencies, slacken their efforts, and give up more quickly (Bandura, 1998; Ashton & Webb, 1986; Schunk & Zimmerman, 1998).

Teaching Self-Efficacy

Badura's self-efficacy theory has shed light on the exploration of teachers' teaching self-efficacy beliefs, which was defined by Tschannen-Moran, Woolfolk Hoy, & Hoy (1998; Woolfolk Hoy, 2004), as teacher's judgment of his/her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated. Teaching self-efficacy is a simple idea with profound implications (Henson, 2002; Woolfolk Hoy, 2004April). Teaching self-efficacy beliefs may influence what instructional approaches a teacher will use, what

attitudes he/she may adopt, what actions he/she will take in the classroom, and how capable a teacher is in bringing about desired student performance outcomes, not only among top students but among at-risk or unmotivated ones (Armor, Conroy-Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zellman, 1976). Teaching self-efficacy beliefs affect the effort teachers invest in teaching, the goals they set, and their level of persistence in working with challenging students. Teachers with a strong sense of teaching self-efficacy tend to exhibit higher levels of planning and organization (Woolfolk Hoy, 2001), experiment with different methods of instruction to a greater degree (Allinder, 1994), seek improved teaching strategies (Guskey & Passaro, 1994), and explore new instructional materials (Stein & Wang, 1988). In addition, these teachers tend to be more open to new ideas and more willing to adjust their teaching to better meet the students' needs (Guskey, 1988; Stein & Wang, 1988; Bandura, 1997; Pajares, 1996; Zimmerman, 1998; Woolfolk Hoy, 2001).

Similarly, Ashton and Webb (1986) define teaching self-efficacy as "the extent to which teachers believe they can affect student learning" (p. vii) and emphasize that teaching self-efficacy "might be an important construct to further [people's] understandings of motivations of teachers" (p. vii). Due to its profound implications, Bandura's theory has been widely applied in a variety of fields from its beginnings, including teacher education. The concept of "teaching self-efficacy" was first identified when a RAND Corporation study related teachers' behaviors to students' achievement (Armor, Conroy-Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zellman, 1976). Since then, teaching self-efficacy has been closely associated with teachers' abilities to motivate students (Moselly, Reinke, & Bookout, 2002), to adopt new instructional

strategies (Gibson & Webb, 1984), and to develop innovative teaching styles (Schunk & Zimmerman, 1998). Teaching self-efficacy has also been linked to superintendent's ratings of teacher competency (Henson, 2001b), classroom management skills (Schunk & Zimmerman, 1998), mastery of subject matter (Woolfolk Hoy, 2000), and effective pedagogical skills (Gibson & Dembo, 1984). Gibson and Dembo's (1984) research has concluded that a teacher's beliefs in his/her own ability to teach students may contribute to individual differences in teaching effectiveness. In addition, teachers with strong teaching self-efficacy have been found to be more likely to persist in their efforts to help unsuccessful, failing students. Teachers' adoption of diverse teaching methodologies is indicative of their confidence in their abilities to teach and in their students' abilities to learn (Ashton & Webb, 1986).

Research also suggests that teaching self-efficacy beliefs influence teacher determination and pliability in teaching in the face of difficulties and challenges (Woolfolk Hoy, 2000, 2001). Greater teacher self-efficacy empowers teachers to be more willing to explain than criticize when students make errors (Ashton & Webb, 1986), to offer diverse ways to help students who are struggling with study (Gibson & Dembo, 1984), and to be less inclined prematurely to move a difficult student to special education (Soodak & Pondell, 1993). Teachers with a higher sense of teaching self-efficacy display greater zeal for teaching (Allinder, 1994; Gusckey, 1984; Henson, 2001b; Woolfolk Hoy, 2001), stronger passion for teaching (Tschannen-Moran & Woolfolk Hoy, 2001), and are identified as more persistent in teaching (Burley, Hall, Willeme, & Brockmeier,1991 April).

The impact of teaching self-efficacy extends even further to the elementary students themselves (Greene & Miller, 1996; Henson 2002). Teaching self-efficacy has been identified as one of the few teacher characteristics consistently correlated with student achievement (Ashton, Buhr, & Crocker, 1984). In particular, Ashton and Webb (1986) conclude that teaching self-efficacy plays a significant role in teacher attitude and behavior, and that teaching self-efficacy is consistently related to students' academic achievement. Teachers with high self-efficacy and outcome expectancy persist longer, provide greater academic focus in the classroom, and offer more consistent feedback than teachers with lower levels of self-efficacy (Ashton & Webb, 1986; Henson, 2002; Schunk & Zimmerman, 1998; Woolfolk Hoy, 2000). Also, Ashton and Webb (1986) highlight the attitudes of teachers with low teaching self-efficacy towards low-achieving students. These teachers are more likely to anticipate that low-achieving students will fail, that their failure is inevitable, and that there is nothing that can be done to intervene. Ashton, Buhr, and Crocker (1984) state that, aside from teaching self-efficacy, no other teacher characteristic has demonstrated such a consistent relationship with student achievement. Ashton and Webb (1986) found a positive correlation between high levels of teaching self-efficacy beliefs, supportive teaching /learning environments, and high academic achievement.

The importance of teaching self-efficacy beliefs in the context of a single teaching task is evidenced by Bandura's (1977) assertion that feelings of low teaching self-efficacy beliefs can lead to less effort, less flexibility in the face of failure, and more stress or depression in the face of external demands. While studying teaching self-efficacy, anxiety, and science knowledge in pre-service teachers, Czerniak (1990)

concluded that teachers with high teaching self-efficacy beliefs are more likely to use inquiry- and student-centered teaching strategies, whereas teachers with low teaching self-efficacy beliefs are more likely to employ teacher-centered strategies, such as lecture and reading from the text.

Woolfolk Hoy (2000) indicates that the powerful influences on the development of teaching self-efficacy may take place during the formative years of a teacher's career. As she explains, if a newly recruited teacher has an opportunity to observe and work with an experienced teacher with strong teaching self-efficacy beliefs, the novice teacher will most likely develop strong teaching self-efficacy beliefs as well.

Another salient feature of teaching self-efficacy beliefs is that these beliefs can be influenced to the greater extent during the early stages of a teacher's professional development, and enhanced through successful teaching experiences (Bandura, 1986). School is the place where novice teachers have their cognitive competencies, mastery of content knowledge, and problem-solving skills tested. Beginning teachers who are well versed in their subject matter and have a high sense of teaching self-efficacy are more likely to attempt innovative teaching strategies, to overcome obstacles, and to be receptive to professional development opportunities (Gibson & Dembo, 1984). Bandura's origiringal conceptualization of teaching self-efficacy and subsequent findings has fostered new interest in the early professional experiences of both teacher candidates and novice teachers (e.g., Henson, 2001b; Tschannen-Moran Woolfolk Hoy, 1998; Woolfolk Hoy, 2000).

PHET Model.

The Perspective for Holistic Teaching (PHET) model (Liu & Doverspike, 2007) advocates that an effective teacher in today's schools must view teaching as a holistic enterprise, which is composed of many complex component parts (Sadker & Sadker, 1977; Feldhusen & Ball, 1998). The model takes positions that effective teachers do not present academic content to students in isolation, but rather as part of a much bigger arena (Duffy, 1998). This model examined three quintessential teaching skills which are believed to be vital to effective teaching at any level. All three of these skills emphasize the teacher's interactive role with students. The three skills are listening, observation, and metacognition.

Listening is the first of the three essential teaching skills. Many benefits can accrue from the improvement of the teacher candidate's listening skills. For example, listening skills can serve as a vehicle for better understanding the student with whom the teacher candidate is working. Instruction itself, as well as effective classroom management, can also benefit from the use of listening skills. Equally important, effective listening assists the teacher candidate with making better diagnoses of leaning problems, and for monitoring the success of the remediation efforts addressed to those problems. The emphasis on listening as an essential teaching skill reinforces the notion that teaching is a two-way and not merely a one-way process: the success of the teaching function is determined not only by how much the teacher knows about the content being taught, but also by how the teacher utilizes information he/she receives from students as they themselves interact with the content.

Observation is the second of the essential teaching skills. As is the case with listening skills, many benefits can accrue from the improvement of teacher candidate's observation skills. Observing student behavior can reap a multitude of potential benefits, including better diagnosis of learning problems, and earlier prescription and intervention with those problems. Observation skills can also help the teacher candidate improve his/her ability to identify patterns in student learning as well as student behavior. Observation skills are also crucial in the context of classroom management, where effective observation of students during both instructional and non-instructional times can assist the teacher candidate in eliminating potential management headaches before they begin, as well as to make more effective management interventions once inappropriate or disruptive student behaviors do occur. Utilizing effective observational skills assists the teacher candidate in gaining a more complete picture of each individual student, his/her leaning styles, and academic strengths and weaknesses. Special needs of particular students can also be identified more quickly with the use of effective observational skills.

Metacognition is the third of the essential teaching skills. Metacognition refers to one's ability to think and reflect on one's own cognitive processes. More broadly, Metacognition on the part of the teacher candidate intern refers to the ability to think and reflect on his/her own teaching, both during instruction itself, as well as during non-instructional time. Perhaps one of the most essential skills for the teacher candidate to practice is that of "thinking on his/her feet": implementing new strategies and modifications to existing strategies based upon new information garnered during the teaching of the lesson – through listening and observation as that lesson progresses.

When teacher candidate is to do an action research, he must develop action plans with a central focus on the problem he has identified in his students. Then, he will work with the targeted group of students on the action plans he has devleoped, collect data, reflect his teaching and make changes as necessary according to the students' behavor or feedback or the new problems emerging.

Methodology

A pre- and a post Action Research and Teaching Self-Efficacy surveys were administered among ninety-seven early childhood teacher candidates who had been enrolled in Practicum II –Action Research during the period of 2007 – 2012. The pre- and the post survey contained the same fifteen statements that the researcher used in her previous three-year study (Liu, K. 2009). Those fifteen statements asked the candidates to self-rate their understanding of action research, inquiry skills, the three essential skills (listening, speaking, and metacognition), content knowledge, developmentally appropriate practices, teaching planning, problem-solving, knowledge of instructional strategies, confidence in teaching, critically reflection of own teaching, reacting and thinking as a teacher, offering professional response, and motivating students to learn by circling one of the rating scales. At the bottom of each statement, the candidates could provide their narrative description or input regarding their understanding of themselves. This narrative part was completely voluntary for the participants or on their willingness.

Both The Pre- and the Post Surveys used a 5-point Likert Scale. The conversion of the Likert Scale to the point system was as follows:

Strongly Agree	=	5 points
Agree	=	4 points
Not Sure	=	3 points
Disagree	=	2 points
Strongly Disagree	=	1 point

Data analysis for the study consisted of four steps: 1) matching the pre-, and the post survey response of each participant; 2) analysis of each of the items in the survey, 3) quantification of the individual or categorized variables as needed for each of the surveys (e.g., items pertaining to teacher candidates' teaching self-efficacy for the focus areas), and 4) reviewing the narrative feedback to see if there existed any patterns.

Result

The result of the Pre- and Post-surveys indicated that there is a huge difference before and after the teacher candidates taking the action research class in all the fifteen statements. in the Pre-survey, 8.24 percent of the participants strongly agreed that *they had a good understanding of Action Research on student learning* while in the Post-Survey, the percentage for this statement went up to 63.91persent , increased by 55.67. Before taking the course, the average percentage of participants' responses to the fifteen statements under the category of the "***undecided***" column was 25.02 compared to that of 5.1 percent in the Post-Survey. The ***Strongly Agree*** percentage of the rest of the fifteen statements in the Pre-Survey and the Post Survey were 10.30/58.75; 20.62/67.00; 9.27/77.32; 19.59/81.44; 27.83/72.16; 22.68/71.13; 16.49/78.35; 22.68/61.85; 20.62/77.32; 5.10/80.41; 12.37/71.13; 7.21/86.57; 17.53/61.85 and 6.19/80.41. The percentage under the column of ***Agree*** was 21.65/36.08; 30.92/41.23; 42.27/32.99; 61.85/22.68; 56.7/19.56; 67/27.83; 60.84/28.87; 64.95/21.65; 36.08/38.14;

61.85/22.68; 64.95/19.59; 71.13/28.87; 51.54/14.32; 49.48/38.14; and 51.54/19.59 respectively. For detailed information, please refer to Table 1 and Table 2 on Page 13.

The comparison of the Agree & Strongly Agree columns in Pre- and the Post Surveys illustrated that there was a great change in participants' views on the fifteen items listed in both survey before and after taking the course. After taking the courses, the "***agree"*** percentage of the participants decreased by 39.17 in content knowledge statement and the percentage of the same statement under ***strongly agree*** increased by 68.05. Majority participants moved from ***agree*** to ***strongly agree*** on observing, content knowledge, inquiring, thinking, planning, problem solving, pedagogical knowledge, reacting as teachers, and motivation skills (9.28/-39.17/-37.17/-39.17/-31.97/-43.3/-42.26/-56.81/-37.22 (4*) vs.48.38/68.05/65.85/44.33/48.45/61.68/56.70/75.31/79.36/74.22 (5*). See Page 4, Table 3 for detailed information.

The narrative descriptive data echoed the survey data. The participants' feedback indicated that the action research course with field did help improve teacher candidates' self-efficacy beliefs and inquiring skills. As one participant commented below each item in the survey, "Action research project increased my confidence in that it allowed me to try out something different and realize that it really can work… It helped me increase confidence in myself to become a good teacher."

Table 1 – the Percentage of the Pre- Survey (2007-2012)

Item	1*	2*	3*	4*	5*
AR on Student Learning	5.10	23.71	41.23	21.65	8.24
Listening	0.00	23.71	35.00	30.92	10.30
Observation	0.00	15.46	21.65	42.27	20.62
Content Knowledge	0.00	8.24	20.62	61.85	9.27
Inquiring skills	0.00	1.0	20.62	56.70	19.59
Thinking skills	0.00	1.0	8.24	67.00	27.83
Planning	0.00	2.0	14.32	60.84	22.68
Problem-solving	0.00	3.0	15.46	64.95	16.49
Teaching Confidence	0.00	5.1	36.08	36.08	22.68
Teaching skills	0.00	3.1	14.32	61.85	20.62
Pedagogy Knowledge	0.00	8.24	21.65	64.95	5.10
Reflecting skills	0.00	2.0	16.49	71.13	12.37
Reacting skills	0.00	1.0	42.27	51.54	7.21
Responding skills	0.00	5.1	28.87	49.48	17.53
Motivating skills	2.00	2.0	38.14	51.54	6.19

Notes: 1) N = 97
2) 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Table 2 – The Result of the Post Survey (2007-2012)

Item	1*	2*	3*	4*	5*
AR on Student Learning	0.00	0.00	0.00	36.08	63.91
Listening	0.00	0.00	0.00	41.23	58.75
Observation	0.00	0.00	0.00	32.99	67.00
Content Knowledge	0.00	0.00	0.00	22.68	77.32
Inquiring skills	0.00	0.00	0.00	19.56	81.44
Thinking skills	0.00	0.00	0.00	27.83	72.16
Planning	0.00	0.00	0.00	28.87	71.13
Problem-solving	0.00	0.00	0.00	21.65	78.35
Confidence in Teaching	0.00	0.00	0.00	38.14	61.85
Teaching skills	0.00	0.00	0.00	22.68	77.32
Pedagogy Knowledge	0.00	0.00	0.00	19.59	80.41
Reflecting as a teacher	0.00	0.00	0.00	28.87	71.13
Reacting as a teacher	0.00	0.00	0.00	14.32	86.57
Responding as a teacher	0.00	0.00	0.00	38.14	61.85
Motivation skills	0.00	0.00	5.10	19.59	80.41

Notes: 1) N = 97
2) 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree

Table 3 –Comparison of the Differences in the Pre- and the Post Survey Results

Item	4* Pre-	4* Post	4* Dif.	5* Pre-	5* Post	5* Dif.
AR on Student Learning	21.65	36.08	14.43	8.24	63.91	55.67
Listening	30.92	41.23	10.31	10.3	58.75	48.45
Observation	42.27	32.99	-9.28	20.62	67.00	48.38
Content Knowledge	61.85	22.68	-39.17	9.27	77.32	68.05
Inquiring skills	56.7	19.56	-37.17	19.59	81.44	65.85
Thinking skills	67	27.83	-39.17	27.83	72.16	44.33
Planning	60.84	28.87	-31.97	22.68	71.13	48.45
Problem-solving	64.95	21.65	-43.30	16.49	78.35	61.86
Confidence in Teaching	36.08	38.14	2.06	22.68	61.85	39.17
Teaching skills	61.85	22.68	-39.17	20.62	77.32	56.70
Instructional Techniques	64.95	19.59	-42.26	5.1	80.41	75.31
Reflecting as a teacher	71.13	28.87	-56.81	12.37	71.13	58.76
Reacting as a teacher	51.54	14.32	-37.22	7.21	86.57	79.36
Responding as a teacher	49.48	38.14	-11.34	17.53	61.85	44.32
Motivation skills	51.54	19.59	-14.7	6.19	80.41	74.22

Notes: 1) N = 97

2) As no participants selected the first three digit number (*Strongly Disagree*, *Disagree* and *Not Sure*, this table contains only the differences of the last two digits. Numbers: 4* = Agree; 5* = Strongly Agree.

Conclusions

This study matched the findings that the researcher did in 2009. The data analysis of the present study supports the previous findings that action research is a promising tool to insure teacher candidates' professional development. It can be employed to sharpen teacher candidates' three holistic teaching skills – listening, inquiring and observing. Action research will enable teacher candidates to think, act, and reflect their designing meaningful curriculum, selecting developmentally and effective instructional strategies that will target the individual needs for learning. Action research practice will greatly increase teacher candidates' self-efficacy on teaching.

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