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Employing "Best Practices" In Teacher Education: Faculty Perceptions Of Their Success And Their Needs In Preparing Teachers To Increase Student Achievement

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EMPLOYING "BEST PRACTICES" IN TEACHER EDUCATION: FACULTY PERCEPTIONS OF THEIR SUCCESS AND THEIR NEEDS IN PREPARING TEACHERS TO INCREASE STUDENT ACHIEVEMENT

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ABSTRACT

This qualitative study focuses on the faculty engaged in the preparation of secondary teachers at North East University (NEU). It seeks to discover how they see themselves as professionals and assess their work preparing future teachers in "Best Practices" of teaching so that they can effectively teach all students, particularly low achievers. To achieve the goal of this study, I conducted semi-structured individual interviews with those faculty who are engaged in preparing teachers at the secondary program. Eight participants were interviewed for this study, among them six participants were fully engaged in the teacher preparation. Once I collected the data from the interviews, then I transcribed, coded, analyzed the data, and identified similarities, differences, patterns, and themes from the interviews. The findings of this study indicate that these faculty have a strong commitment to preparing outstanding teachers that is rooted in their belief in social justice and equality. They expressed they have dreams about their teaching, about their student-teachers and about their program. The faculty are highly confident of their ability to educate secondary teachers and believe that they make a difference in the academic performance of those children their graduates serve in the schools. This study also concluded that the teacher educators at NEU's secondary program think they are successful in introducing "Best Practices" of teaching, especially helping their student-teachers in differentiating instructions, dealing with disabilities, teaching ELL students, employing technology in teaching, understanding diversity, culture and traditions, and preparing their student-teachers in examining issues relating to prejudice, discrimination, stereotyping, race, poverty, gender, social class and ethnicity.

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LIST OF ABBRIVATIONS:

ACT= American College Test

ATE = Association of Teacher Educators

CAEP = Council for Accreditation of Educator Preparation

CESS = College of Education and Social Services

ELLs = English Language Learners

GPA = Grade Point Average

NAEP = National Assessment of Educational Progress

NCAT = National Council for Accreditation of Teacher Education

NCATE = National Council for Accreditation of Teacher Education

NCLBA = No Child Left Behind Act

NCTQ = National Council on Teacher Quality

NEA = National Education Association

NECAP = New England Common Assessment Program

PISA = Program for International Student Assessment

SAT= Scholastic Aptitude Test

STITS = Shanghai Tops International Test Score

TFA = Teach for America

CHAPTER 1: INTRODUCTION

North East University (NEU), located in New England, is the site of this study. The mission of its teacher preparation program is to prepare caring teachers who are dedicated to making "a difference in the lives of children, youth, families and communities" (NEU, 2013b). According to NCATE (2013) caring teachers are those educators "who can help all students to learn" (p.1). They honor and respond to differences, use "Best Practices" for instruction and assessment, create supporting learning environment, and encourage successful learning for all students.

NEU's mission is to "maximize the human potential and the quality of life for all individuals, families and communities." NEU promises to prepare outstanding teachers "through innovative professional practices and scholarship in a changing world" so that the teachers are prepared to work with students with diverse needs in public school classroom. The secondary education program at NEU makes a commitment to train the teachers through reflective learning and clinical practices grounded with the principles of inclusion, multiculturalism, equity, constructivism, collaboration, human development and empowerment (NEU, 2013b).

The NEU faculty members who are involved in teacher preparation programs have had a longstanding commitment to educational equality and, according to past accreditation reports, have sought to develop professional programs that prepare teachers to address the needs of low achievers. The accreditation reports illustrate what the NEU teacher preparation programs have been doing in preparing teachers and what they need to do better.

The NEU faculty and other teacher educators across the country, however, have been conducting their work in a climate of increasing criticism of our public school and the teachers' efforts to address the needs of learners, especially to the low achievers. These criticisms of teachers have been accompanied by a rise in attacks leveled at Teacher Preparation Programs (TPPs) by scholars, reformers, politicians, business leaders, accrediting agencies and others. They have complained that the new teachers have not been prepared adequately to manage the classroom realities, and that there has not been much focus on raising the achievement level of all learners, particularly the low achievers. Most of the TPPs, they have argued, have not been producing teachers competent enough to improve students' academic performance, particularly those from low socio economic conditions and minority ethnic backgrounds (Levine, 2006; Kukla-Acevedo & Toma, 2009; Greenberg et al., 2011; Tennessee Higher Education Commission, 2012).

Teachers are not the only influential factor affecting academic achievement gap, but they are probably the most important one (State of Vermont, 2013). So much depends on the quality of teachers, how they are prepared, trained and supported so that they are able to produce high student achievement in our public schools (NCATE, 2010). Therefore, teacher preparation programs can have a major impact on the student achievement (MacCallum & Ross, 2010).

There have been some reforms in teacher preparation programs (TPPs) in the recent years, partly in response to the criticisms raised. These have led to increased attention being paid to closing the achievement gap between different groups of students associated with race, ethnicity, socio-economic status, gender, dis/ability, language, and

geographic location (FCPS, 2012). Some of the institutions have been successful in preparing competent teachers capable of improving the overall academic performance of low achieving students and thereby reducing the achievement gap (Henry et al., 2011; Tennessee Higher Education Commission, 2012; Milton et al., 2013; BTR, 2013). Such successes have come as a result of the combined efforts of many TPPs, accreditation agencies, scholars and faculty. The reform of TPPs has been driven partly by identifying and promoting a body of educational practices, often described as "Best Practices". The overall goal of "Best Practices" is raising student achievement. Achieving this goal is seen as evidence of a successful teacher prep program (Darling-Hammond, 2010).

"Best Practices" are grounded in sound learning principles and based on a comprehensive set of standards where teachers create differentiated learning environments which can help all types of learners, including low achievers, to be successful. Scholars such as Linda Darling-Hammond and Arthur Levine, and accrediting agencies such as NCATE and CAEP have helped move these practices to the center of many professional programs (MacCallum & Ross, 2010). Although many of the recommendations for TPP reform are broader and do not focus specifically on meeting the challenges of low achievers and minimizing the achievement gap, there is an assumption that preparing teachers according to the "Best Practices" would be a positive step toward addressing the needs of these learners.

This research aims at understanding where the NEU faculty find themselves in preparing secondary school teachers with respect to these "Best Practices" that are interwoven into the goal of meeting the needs of low achievers. In brief, this research will conduct interviews with those faculty engaged in the TPP for secondary level at

NEU to understand how these NEU faculty describe their present effort in preparing teachers in "Best Practices": what they and their program are doing well, what needs to be improved or changed, and what needs to be added. Through these interviews, I will also strive to draw out: their goals for these teachers, their view of what a good teacher should do, and their sense of agency as professionals. Finally, I hope to generate recommendations for improving this teacher preparation program, recommendations that might be useful to teacher educators elsewhere.

1.1. Background of the Study

For the last ten years I have been engaged in public schools in New England as an educator, mostly working with community college, high school, middle and elementary school students. Since starting my doctoral program, I have been involved in the teacher certification program and have supervised student-teachers during their practice teaching at various public schools. I have observed how they teach and how their teaching influences the performance of their students. I have also had opportunity to observe other classes and talk with classroom teachers, students, parents and school staff while I was conducting pilot studies on refugee education. I noticed that some students were actively participating in the learning process and earned higher grades in all subjects. Other students, especially from low socio economic families and diverse cultural backgrounds, including refugees, did not seem engaged and were not able to demonstrate much progress in their performance.

Since being engaged in my supervisory work, I have sought to understand why these academic achievement gaps in public schools exist and what can be done to

improve the performance of students so that everybody succeeds. I am interested especially in the performance of high school students. Before turning to my research, I will report on the performance of secondary public school students in New England related to race/ethnicity and subject area based on the NECAP, ACT and SAT test results. Further, I will discuss the factors that can promote high achievement of all students based on literature review.

In this inquiry, I am not able to study all the factors that may have an influence on students' performance due to time and resource limitations. I have chosen, therefore, to concentrate only on teacher preparation factors, as specifically on the teacher preparation program of a university in New England which I call as North East University (NEU, pseudonym).

First, I will investigate what the NEU faculty members bring to their work in terms of their commitment to equity and how it influences their work in preparing secondary school teachers. Then, I will find out what is their view of a good teacher should look like. I will report on how the faculty members describe their success in introducing "Best Practices" into their work: what they do well and what needs improvement. Finally, I will comment on what else the teacher-educators believe they and their program need to do to prepare their student-teachers so that they can effectively teach all students including the low achievers.

I will examine the opinions of faculty members in employing "Best Practices" in classroom teaching in their teacher preparation work from data gathered through interviews. For the above analysis, I employ qualitative research methodology that

generates textual, rich and thick descriptions of data (Borrego, Douglas, & Amelink, 2009).

Qualitative research method is useful to improve understanding about social practices. It allows researchers to maintain a close contact with research participants and collect data applying different research methodologies so that rich and in-depth understanding of a phenomenon is possible. Qualitative method offers an explanation of casual relationships at micro-level and can contribute ideas to develop theories, concepts or hypotheses (Moriarty, 2011). Besides conducting semi-structured interviews with the faculty members who are teaching course at the NEU teacher preparation program, I will review other relevant documents/reports for supplemental data about their professional efforts to prepare their students to employ "Best Practices" in the classroom teaching.

1.2. Problem Statement

The United States has set a very ambitious goal to achieve academic success in higher education by the end of 2020 (Bowen, 2009). President Obama has a vision that "America will again have the best-educated, most competitive workforce in the world with the highest proportion of college graduates of any country" (Janak & Blum, 2013,p.7). However, the success of higher education depends upon the achievement of students in high schools.

A recent PISA (Program for International Student Assessment 2012) result indicated that US schools are not performing well compared to schools in many European and Asian countries (Hefling, 2013). A global survey of 15 year old students' test scores in reading, math and science shows that the US is in 24th position in reading, 36th in math

and 28th place in science compared to major European and Asian countries. These results have led some commentators to state that America may lose its current global leadership role in terms of military, industrial, economic, space exploration and technological supremacy if necessary measures are not taken to improve its education system (Segal, 2004; Strauss, 2013).

There is also a vast disparity in students' performance within the United States. There are substantial academic gaps among white and Asian, black and Latino students, boys and girls, that are generally attributed to racial and economic inequalities in the United States (McDougall, 2012). More than 22 percent of U.S. students live in poverty, which has affected their academic performance drastically. The highest child poverty rates were found mostly in minority communities, especially among African Americans (38 percent), American and Alaskan Natives (37 percent) and Hispanics (35 percent) (Proctor, 2011). Children in these groups are also disproportionately found among low achievers.

Williamson (2012) found that altogether 1.2 million students did not graduate from high school in 2011. Students with a low socioeconomic status and those who are minorities have frequently demonstrated a poor performance in the national and state level tests. Almost one third of all public high school students, which includes about fifty percent of minority students, fail to graduate from high school with their classes because of poor performance in math, science and reading (Cress, Burack, Giles, Elkins, & Stevens, 2010, p.3). The high school dropout rate is a serious concern. About 5 percent of white students, almost 10 percent of African-American students, and 18 percent of Hispanic students, fail to attain a high school diploma. In addition, about 68 percent of

this country's 2.3 million prison inmates are high school dropouts. The financial cost to take care of the inmates is much higher than the cost of helping the students to graduate from their high schools (McCallum, 2008; Chidamber, 2013).

There are similar disparities in the academic achievements of high school students in New England. Students coming from low income families, minority children, and children from refugee families have comparatively low performance results.

Table 1

NECAP Grade 11 Mathematics - All Students

Percent of Students Performing at or above Proficient

State	2007	2008	2009	2010
Vermont	30	35	35	38
New Hampshire	28	32	33	36
Rhode Island	22	27	27	30

Source: New Hampshire Department of Education (2011)

The NECAP test results show that there was significant academic gap among high school students in different subjects in different states. Less than 40 per cent of the 11th grade students in Vermont, New Hampshire and Rhode Island were performing at or above proficiency level in their math subject. Maine did not participate in NECAP test for grade 11 during this period. The majority of the students in each state were performing below proficiency level. Similarly, there was not much academic progress of the 11th grade students during the four years period 2007 to 2010 in math subject as reported by the NECAP test results.

Table: 2

NECAP Grade 11 Reading - All Students

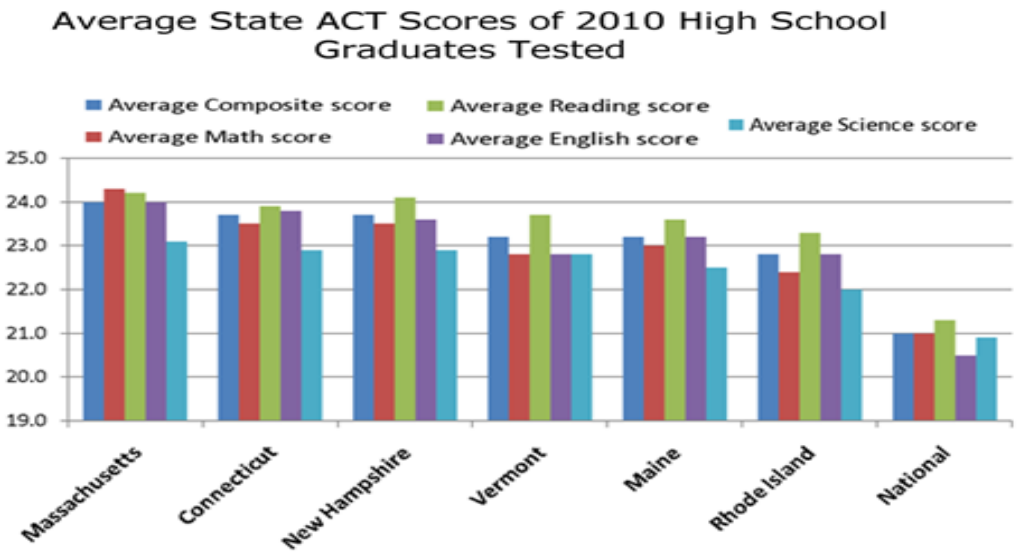
Percent of Students Performing at or above Proficient

State	2007	2008	2009	2010
New Hampshire	67	72	73	74
Rhode Island	61	69	73	74
Vermont	68	72	69	72

Source: New Hampshire Department of Education (2011)

The NECAP reading test results show the 11th grade students from all the three particpaing states had a better peformance than the math results during the same period (2007- 2010). About 75 per cent 11th grade students were performing at or above proficiency level. However, remaining students (about 25 per cent) were still low academic performers.

Figure 1

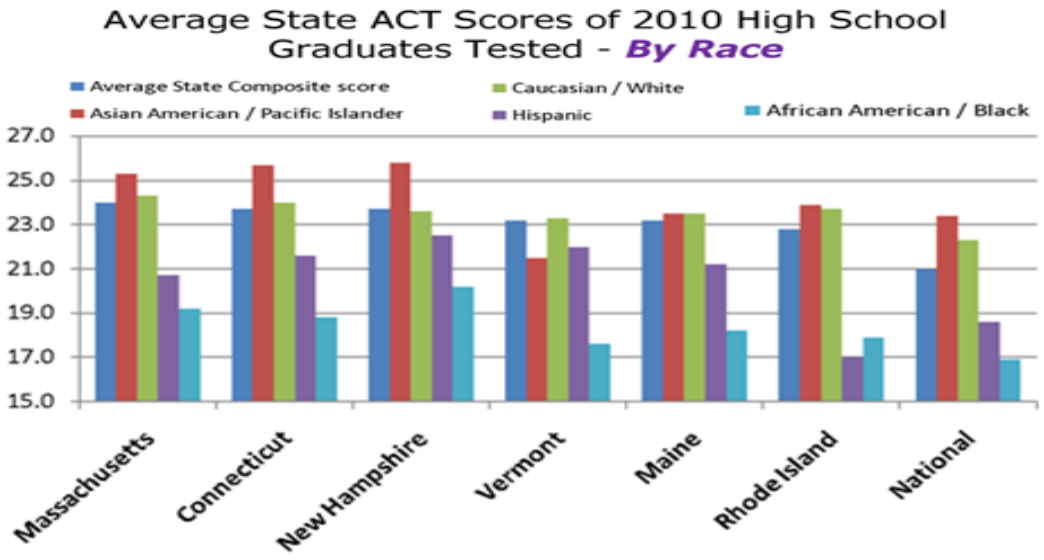


Source: New Hampshire Department of Education (2011)

The 2010 state wide ACT test scores in New England have a similar result. Though high school students in New England were performing better in math, reading, English and science compared to the national average scores, there was academic performance gaps among the different subjects. Students were doing better in reading in all New England states where most of the students were poorly performing in math and science subjects except in Massachusetts.

Factors related to race and ethnicities have also played a significant role in widening academic achievement gaps in New England. According to the ACT test results of 2010 high school graduates, Asian American/ Pacific Islanders performed better in most of the states except in Vermont. Caucasian/ white students were in the second position in majority of the states. Among the different races, Hispanic and African/black students were the poor performers in most of the states. African students' performance was the lowest among all the races.

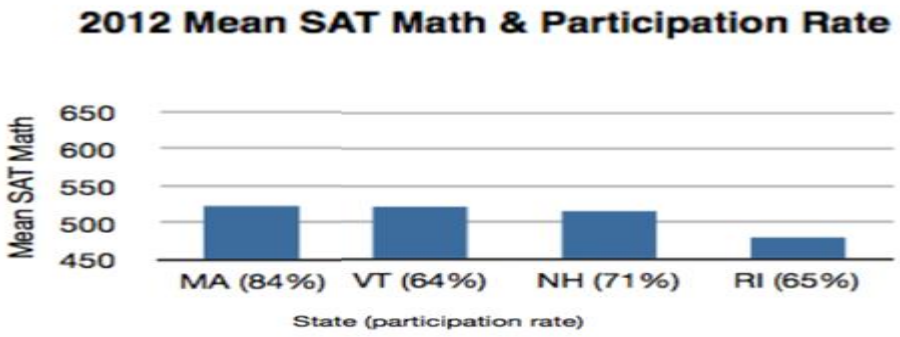
Figure 2



(Source: New Hampshire Department of Education, 2011)

The SAT scores has similar pattern in the academic performance of high school students in New England. As the following figure shows there is a still academic difference among the high school students in New England.

Figure: 3



(Source: College Board, 2012)

These data provide the contextual background for this research study. They also point to the urgency of finding more effective ways of ensuring that all students are successful learners in our schools. The faculty members involved in this study share these concerns. My hope is that this study will uncover some areas where this, as perhaps other, teacher training program can improve.

1.3 Definition of Some Terms

Let me define some of terminology that frequently appears in this study.

Students: "Students" refers to those learners who are enrolled in the secondary, middle and elementary schools. The particular focus of this study is on "students" who are enrolled at high schools in New England.

Teachers: "Teachers" in this study are those graduates who complete the teacher preparation program from **NEU** and are hired to teach in public schools in New England. They are also referred as "graduates" or "new teachers" in this report. The teachers are

called “student-teachers” or “teacher candidates” while they attend the teacher preparation program at NEU.

Mentor Teachers: “Mentor teachers” are those teachers in whose classrooms the NEU student-teachers are placed for their practice teaching or internship. “Mentor teachers” are also known as “co-operating teachers” who observe, provide feedback, guide, hold professional conversations and work together with the student-teachers throughout their placement.

Faculty Members: “Faculty members” are those educators who teach the student-teachers in the teacher education program at NEU.

Differences in Academic Achievement (DAA): Differences in academic achievement refers to the disparities of academic performance in schools between different sub-groups of students based on race and ethnicity (white, black, Hispanic, Asian, American Indian), socio-economic status (rich vs. poor), gender (boys vs. girls), ability (able vs. disabled), language (native speaker vs. English Language Learner), number (majority vs. minority) and geographic location (rural vs. urban). It is the difference between the highest performing and lowest performing sub-groups of students in their NECAP, ACT and SAT test scores. DAA is also commonly referred to as achievement gaps. An achievement gap is considered closed when there is no difference or negligible difference between of academic performance of the subgroups of students mentioned above (FCPS, 2012).

1.4 Conceptual Framework

This study is informed by theory of action where activities and consequences of human behavior are monitored to learn if the performance is effective. While monitoring

the effectiveness of human actions, the suitability of the intervention is also examined (Lipshitz, 2008). This theory assists "to develop the concept of active performance" where goal setting, planning, orientation, execution, monitoring and feedback become common process of actions (Frese, 2009, p. 440). These processes help people to be successful by utilizing their limited resources and translating their goals into actions. In other words, theory of action demonstrates how program inputs, often resources, enable actions that lead to outputs that contribute to the long term goals. As Lipshitz (2008) states "theory of action includes a description of the situation, an implicit goal, and an action strategy for achieving that goal under the given conditions." (p. 121).

The theory of action assumes a causal relationship between the actions and the short term results which is known as causal mechanism theory. This is why there needs to be clear visions and strategies so that the intended goals can be achieved. It is also important to define what vital activities are needed, and how the activities will affect desired skills and knowledge that can influence the long term goals. The model that deals with the chain of intermediate results which leads to intended outcomes is called the pipeline logic model (Funnell & Rogers, 2011).

Since theory of action is an outcome model associated with chain of intermediate results such as inputs, process, outcomes, and impact, this study is also informed by theory of change. There is an interconnection between theory of action and theory of change. Theory of change identifies the process through which change is expected whereas theory of action draws the path to achieve the expected goals (Morgan, 2012).

Consistent with these theories of action and change, NCATE (National Council for Accreditation of Teacher Education) has established six standards to ensure highly

efficient, caring and qualified teachers (NCATE, 2013). Similarly, within the similar theoretical framework CAEP (Council for Accreditation of Educator Preparation) has recommended five standards for teacher preparation institutions to produce highly competent new teachers (CAEP, 2013).

In addition, the Federal Government, other accreditation organizations and professional networks including NCTQ (National Council on Teacher Quality) have stressed the importance of teacher effectiveness based on the professional standards that can produce highly qualified and competent teachers who could raise all students' academic performance and minimize the achievement differences (US Dep. of Education, 2009).

Scholars such as Linda Darling-Hammond and Arthur Levine have advocated the importance of "Best Practices" to ensure the professional standards and increase competences of teachers so that student achievement can be raised. This may be only possible through a successful teacher preparation programs. Therefore, it would be important to understand how NEU faculty members strive to educate prospective teachers, so that the graduates can apply "Best Practices" in their teaching to effectively educate all students, including the low achievers, and help reduce the size of the present academic achievement gap.

Towards the end, this study investigates what changes are needed at the NEU teacher preparation program, and how they could be implemented so that NEU produces more competent teachers in future.

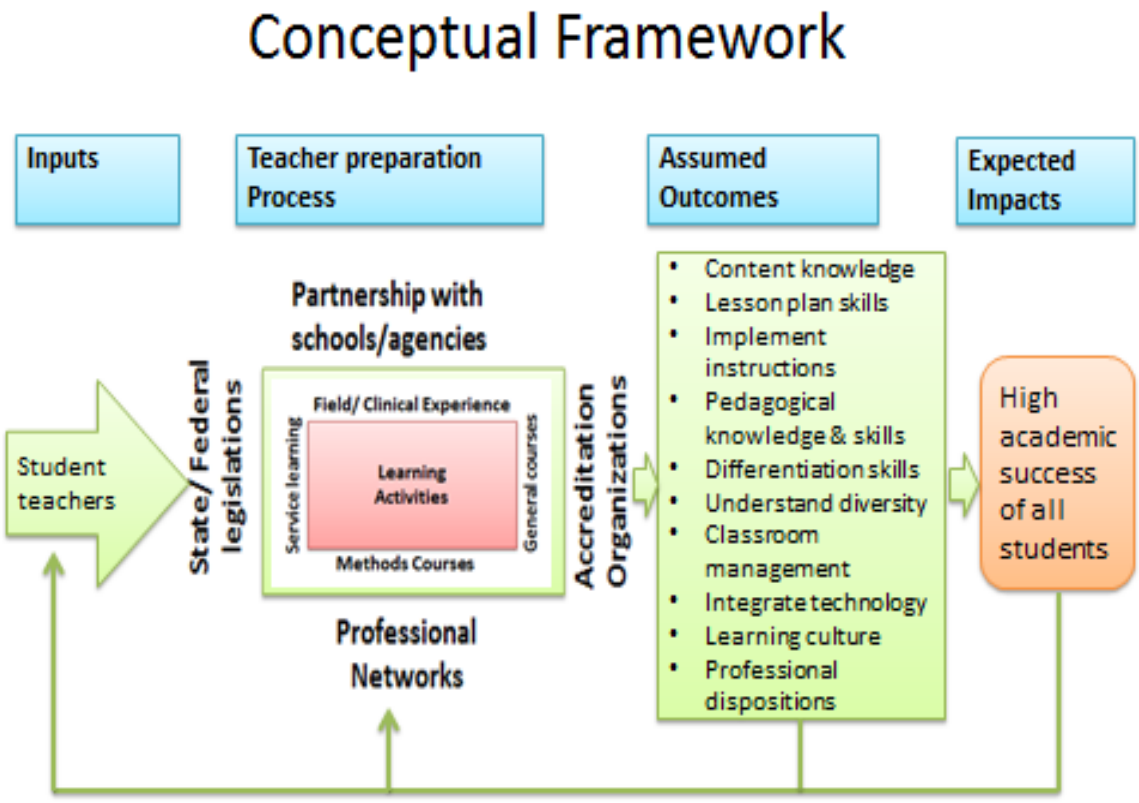
A conceptual framework that undergirds this study is based on the above mentioned theories and standards. It focuses on the impact that teacher preparation

program can have on academic performance of students. It assumes that achievement difference among students will be substantially reduced if the new teachers are prepared effectively and have acquired the "Best Practices" for teaching during the preparation.

This assumption is based on the set professional standards established by NCATE (2013). According to the conceptual framework (Figure:5) Teacher Preparation Institutions (TPIs) will enroll highly qualified, successful, hardworking and committed student-teachers from diverse culture, ethnicity, race and socio-economic backgrounds (CAEP, 2013). The student-teachers will learn how to plan lessons, teach different subjects, create learning environments, manage classroom dynamics, and integrate different teaching strategies. They also will be offered high quality field and clinical practice opportunities and receive constant support and guidance from their experienced faculty, supervisors and mentors (CAEP, 2013).

By the end of four years of in-class, field/internship and service learning opportunity, the student-teachers should graduate as highly efficient and competent teachers. They will have gained in-depth knowledge, skills and professional dispositions as illustrated in the following logical model (State of Vermont, 2013). This preparation model is also the goal of Federal and state legislation, and of professional standards set by accreditation organizations and other professional networks. It provides a framework for producing highly qualified, effective and caring teachers for every school, who can improve the overall academic performance of all the students, no matter whether they come from different demographic groups; white or black, rich or poor, able or disabled, ELL or Non-ELL, male or female (NCATE, 2013).

Figure 4



If everything works according to this model for teacher preparation, this would be the perfect case. But, this does not happen, except perhaps in an ideal world. The above model also suggests TPPs should maintain a continuous feedback system until the expected long term goal is achieved. This framework is helpful for me because it sets standards of success for teacher preparation programs and based on this model I can research how the secondary education faculty members at NEU are preparing future teachers in the "Best Practices" for the classroom.

1.5 Research Questions:

This study is guided by the following three major research questions:

1. What do the NEU faculty members think they bring to their work: their goals for education, their sense of professional efficacy, their view of what a good teacher should look like?
2. How do the NEU faculty members describe their success in introducing "Best Practices" in classroom teaching? What do they feel that they do well as professionals and where do they feel they need to improve or change?
3. What do these NEU faculty members believe they and their secondary teacher education program must do to improve the preparation of their student-teachers in "Best Practices" of teaching, with specific reference to effectively teaching low achieving students?

1.6 Importance/ Significant of the Study

Various studies have indicated that school leadership, parents, community, teachers and students themselves can play significant roles in maximizing students' academic performance and minimizing achievement gaps (Colquhoun & Bourne, 2012; Collopy, Bowman, & Taylor, 2012; NEA, 2013; The Wallace Foundation, 2013) . However, because of the limitations of time and resources, I am concentrating only on teachers and their preparation in this study.

Teachers are closely connected with the academic performance of students. They can positively influence the academic performance of their students if they are well trained, qualified, and committed in their profession. They have been described as

"dedicated teachers [who] would be willing to make such great personal sacrifice for their students" (Mazyck, 2006, p. 1). This assessment of teachers resonates with my own story. I grew up in a remote mountain part of Nepal where the majority of my family members and community people were illiterate. However, I am now a doctoral candidate at a respected university in the USA. I would not have reached this current stage of my academic success if I did not have great gurus, teachers, faculty and educators. They inspired, motivated, encouraged and showed me the path, even though the schools I attended did not have adequate resources to buy books, pencils or offer nice classroom facilities. I know that teachers can make a difference in the lives of their students.

Therefore, as I look at educational challenges facing low-achieving students, I believe that competent teachers can have a major role to play in closing academic achievement gaps. Teachers who have in-depth content knowledge, pedagogical skills and commitment to teaching diverse students groups can learn to teach students with multicultural, multiracial and varied socioeconomic backgrounds. This will involve understanding how culture, poverty, race, disabilities, gender affect the learning process and using differential teaching approaches to address the needs of their students (Payne, 2012). Such trained and qualified teachers will set a bar of high expectations for their majority as well as minority students including the Hispanic, African-American and Asian refugee children (Walsh, 2012).

This is the challenge before the North East University (NEU) faculty. NEU is a leading institution in the preparation of elementary, middle and secondary school teachers for New England as well as other neighboring states since the 1800s, and it has been continuously approved by state and accredited by National Council for Accreditation of

Teacher Education since 1954. NEU's goal is to offer practical experiences by designing student focused programs in collaborative learning environments (NEU, 2013a).

With this huge commitment from this institution, it is valuable to understand what motivates the faculty to prepare teachers, how they incorporate their concern about the success of low achievers into their work, and how they implement "Best Practices" into their teacher preparation work. It is also important to investigate what factors teacher educators believe stand in their way of preparing the best teachers possible and what changes need to be made. Although there have been accreditation reports prepared by NEU over the years, there has been no formal study conducted by NEU asking faculty members how they feel about their own teacher preparation program. This is consistent with Levine's (2006b) urging that universities need to engage in "clear-eyed evaluations of teacher-education programs" or run the risk of having states step up and carry out their detailed assessment (p. 1).

Thus this study may help to gain new knowledge about the perspectives of teacher educators, their motivations to prepare teachers, their commitment to equity, how they describe their success in preparing their students with these "Best Practices" for classroom teaching. This study may have also professional implications in improving teaching curriculum, instructional pedagogies, field/ clinical experience, and promoting more productive and accountable educators who are involved in teacher preparation programs.

Last but not least, this study may have policy implications on teacher preparation programs at local, state and federal levels. It may suggest changes in aspects

of the teacher preparation programs at NEU that will enable the faculty to do a better job in preparing new teachers. Similarly, this study may suggest how state, federal or other professional organizations could support institutions so that high performing new teachers could be produced.

CHAPTER 2: LITERATURE REVIEW

Research shows that teachers play a vital role in the academic performance of students. They are the biggest influential factor that can affect students' academic growth. Therefore, the assumption is that if highly competent and qualified teachers are prepared based on "Best Practices" of teaching, they can effectively educate and raise all students' performance and minimize the academic achievement gap (US Dep. of Education, 2009; NCATE, 2013). The purpose of this study is to gain a better understanding one dimension of how NEU's secondary education program prepares teachers in "Best Practices" of teaching so that they can effectively teach all students, including low achievers. I seek to employ a qualitative research design approach to understand how the teacher educators who are involved in preparing the secondary school teachers at NEU assess their effectiveness and identify their needs. In this chapter I will define achievement gap, explore factors that influence academic achievement of students, discuss the implications of teacher preparation and present an overview of current research on "Best Practices" of teacher preparation. I will utilize this literature review to frame research questions and design questions for the face to face interviews with the NEU faculty members. Later in chapter five, I will apply this literature review as a framework to discuss the findings and recommendations of study.

2.1. Understanding the Achievement Gap

Understanding the achievement gap is a complex subject, partly because it is defined differently in different contexts. The Fairfax County Public Schools (FCPS,

2012), for example, has defined achievement gap as "the difference between highest performing and all other performing subgroups of students"(p. 1). Their definition appears to be based on race and ethnicity, with the highest performing groups being the white/ Asian students and the others being as black/Hispanic students. Some scholars, like Bergeron (2008), also view achievement gap as "disparity between various demographic groups of students"(p. 6). He refers to such measures as school dropouts rates, graduation rates, college going and college completion rates (Bergeron, 2008)

The California Department of Education has a more expansive definition of achievement gap, referring to the "disparities between the academic performance of white students and other ethnic groups as well as that between English learners and native English speakers, socio-economically disadvantaged and non-disadvantaged students and students with disabilities as compared with students without disabilities" (Gonzales, 2009, p.vi). This definition is not limited to the academic disparity between high and low performing students but also addresses different minority groups including white and non-white, ELL and non-ELL learners, rich and poor backgrounds, and different students based on their abilities. The African American Leadership Forum (Cunningham, 2012) views achievement gap from five different perspectives: the preparation gap, belief gap, timing gap, teaching gap and leadership gap. Preparation gap starts from home before children reach to school going age. It all depends how parents create opportunity for physical, mental, emotional, cultural and social development of children in home. The belief gap refers to the academic expectations from students by their teachers, parents and communities. High academic expectations strongly influence students' efforts and performance. The timing gap refers to the amount of time the student focuses on learning

at schools and home. A longer school day and academic calendar year in classroom activities with teachers and after school activities will have definitely implications in the academic performance of students. The teacher gap is related to the classroom teachers. Effective teachers can have significant role in student success. The leadership gap is associated with school superintendents, principals and administrators. Visionary leaders are most effective in improving student success and closing the achievement gap (Cunningham, 2012).

All the above definitions contribute to our understanding that achievement gap means educational differences among the different groups of learners based on race, ethnicity, ability, gender, language, location and socio-economic conditions. However, none of the above definitions illustrates how the performance is measured and what criteria can be applied to measure students' achievement. The common practice to measure achievement gap in the U.S. and other parts of the world is to assess students' performance in reading, writing, math and science through standardized tests such as NECAP, ACT, SAT, NAEP (National Assessment of Educational Progress), PISA (Program for International Student Assessment). To my knowledge, none of these indicators address their creativity and problem solving abilities. While these might be important, they are beyond the scope of this research as well.

2.2. Factors Influencing Academic Achievement

Research shows that various factors influence the academic achievement of children in schools. Some of the major factors are school readiness, parents' involvement,

student efforts, school leadership, school environment and culture, school support system, educational policy and teacher quality (NEA, 2013).

Children's education starts from home, long before they begin school, and these home influences affect their personal, social, language, literacy, cognitive development, mathematical thinking, and almost all aspects of their academic work (Cunningham, 2012). There is concrete evidence that children who have less educated parents and/or who come from low socio-economic background normally have lower academic performance in school (Collopy, Bowman, & Taylor, 2012; Lavin-Loucks, 2006). Those children often lack adequate academic, moral and emotional support as well as a productive learning environment in their home. The list of factors that can affect children's achievement is almost unending: their emotional and social development, health, mobility, home environment, cultural identifies, religion, traditions, social capital, cultural capital, habitus, linguistic codes, social class, social structure, peer relationships at schools and in their neighborhood, to name but a few (Bergeson, 2008; MacLeod, 2009).

Parent involvement is other decisive factor that can have a vital role in the academic performance of their children. Research shows that students whose parents were directly involved in their education, both in home and school activities, had higher scores in tests, passed their classes successfully, attended school regularly, improved behavior, had better social skills and adaptability in schools and finally graduated from high school at higher rates compared to those children whose parents were less involved, regardless of their socio-economic and ethnic background (NEA, 2012; Avvisati, Besbas, & Guyon, 2011). Parent participation in school activities improves communication with

schools and builds better relationships between teacher and parents and teacher and students that can contribute in their children's academic performance (Topor, Keane, Shelton, & Calkins, 2010). Some high poverty schools which give their best efforts to reach out to parents, involve them in curriculum and other school activities and continuously engaged them reviewing their children's work have been successful in improving the academic performance of their students (Hays, 2008).

Other very fundamental factors that affect academic achievement are found within student themselves; their self-esteem, interest, attitude, efforts, commitment and their visions they want to achieve. Research indicates that students who believe they are capable of positive outcomes and are determined to achieve their dreams are more likely to be successful earning high academic achievement, whatever socio-economic background or race (MacLeod, 2009; Solberg, Evans, & Segerstrom, 2009).

School leadership is another crucial factor that has direct implication on students' performance. Schools that have visionary leaders such as superintendent, principal, administrator and management committee can set up visions for success for all students and lead the school team towards the achievement of the predetermined goal (Flagg, 2013). They take responsibility to ensure social justice and equity in schools engaging in democratic dialogues with students, teachers, parents and diverse community members, so that issues relating to language, culture, disabilities, race, class, socio-economic disparities and social structure can be understood and addressed (Temple & Ylitalo, 2009). School leaders can build trust, commitment and consensus among teachers, staff, students and parents so that they can reduce the achievement gap, and improve the overall performance of their students. Effective school leadership promotes

strong professional learning communities (PLCs) at schools to improve the overall quality of teachers so that they not only contribute to the academic achievement of their students but can also play a social transformative role in the community (Western, 2008; Newhouse, 2012). The Wallace Foundation (2013) advocates that effective school leadership can outline "vision for academic success for all students, create hospitable climate to education, cultivate leadership to others, improve instructions, and manage people, data and processes to foster school improvement" (p. 4).

School environment and culture represent another critical factor that determines the academic success of all students. They achieve higher results when they have healthy learning environment in the school (MacNeil, Prater, & Busch, 2009). Students feel valued and safe when schools have caring and supportive culture and students are able to build trusting relationship with their peers, teachers, staff and school leadership (VT DOE, 2009). Students may produce better results when they have reasonable class size so that the class teacher can give adequate time for each student and offer additional support when needed (Fredriksson, Ockert, & Oosterbeek, 2011).

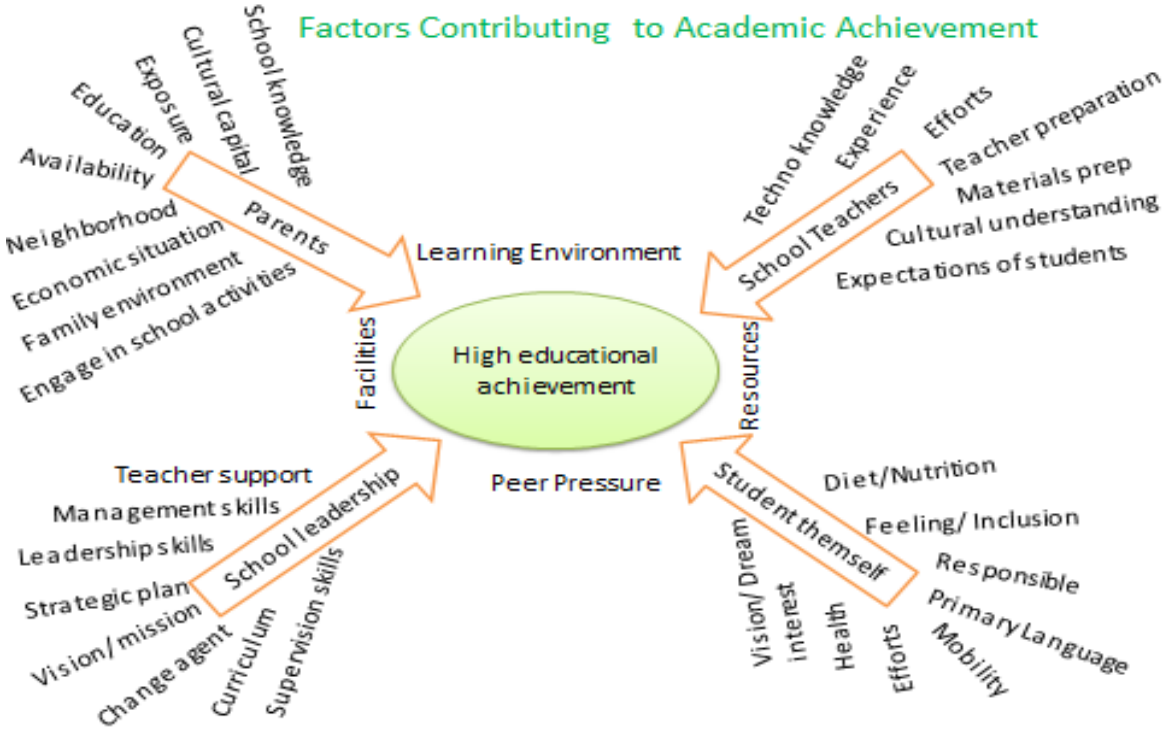
Research also shows that relationships have been found among the quality and availability of school facilities and services, such as science lab, computer lab, library, study room, extra-curriculum activities, nutritious and healthy lunch, homework club, afterschool activities, student club, peer-support, sport equipment, student advisory, counseling services and summer school programs in encouraging student motivation and interest to study hard, improve their ability to learn and increase their overall academic performance (Adeyemo, 2010; Baker & Bernstein, 2012; Lacour & Tissington, 2011)

The academic success of students also depends on support structures available at schools and the dedication and commitment of school administration, staff and paraprofessionals. Those schools which are able to offer highly comprehensive academic, professional, social, physiological, leadership supports to their students are able to build trust among teachers, staff, students and parents and improve academic performance of all students compared to the schools that do not have such adequate support system (VT DOE, 2009). This is especially helpful for minority and disadvantaged students who struggle academically, emotionally, behaviorally, socially or because of language and cultural barriers who often lack some of the necessary supports out of school (Bergeson, 2008). Research indicates that such personalized support system makes students responsive to their instructor, motivates them to work harder, attend class on a regular basis and perform relatively better in tests (Isbell & Cote, 2009).

Teachers, of course, play vital role in the academic performance of students. Many have asserted that classroom teachers are the single biggest influential factor that affects students' academic growth. Education Secretary Arne Duncan (US Dep. of Education, 2009) says "A great teacher can literally change the course of a student's life", no matter whether the student is affected negatively by socio-economic condition or family background (p.1). Teachers are "the most important school-based factor" that can have direct implications on student achievement (State of Vermont, 2013, p. 4). Study shows that there is a direct correlation between teachers' quality and academic performance of students (Akiba, LeTendre, & Scribner, 2007). Schools that have poor quality and unqualified teachers have wide achievement gaps. Highly qualified and trained teachers can motivate, inspire, and create a stimulative learning environment

where everybody succeeds no matter whatever economic background or ethnic group they come from (Clotfelter, Ladd, & Vigdor, 2007). They normally set high expectation bar for all students which can affect students' efforts and their performance. They offer rigorous efforts, differential teaching techniques and adequate time for those students who are behind in their performance (Cunningham, 2012). They are culturally competent and understand the effects of language, poverty, race, and ethnicity in academic achievement and incorporate these elements in their curriculum through multicultural teaching (Lacour & Tissington, 2011). That is why it is very important to prepare, train, coach, support, and motivate teachers in such a way so that they are highly qualified and are able to produce high student achievement at our public schools (NCATE, 2010). The following diagram strives to summarize in a visual form the factors, which are linked to "Best Practices", that may contribute to academic achievement.

Figure 5



2.3 Teacher Preparation and its Effectiveness

Research shows that teachers are in a position to play a significant role in reducing the achievement gap. Obviously, they need to be prepared effectively, bringing us back to a teacher preparation program, which is the focus of this research (MacCallum & Ross, 2010). The purpose of the teacher preparation institutions (TPIs) is, therefore, to provide the best training to their student-teachers with a strong clinical practice component, so that the new teachers learn not only what to teach, but also how to manage the classroom dynamics and how to teach to their diverse high need pupils effectively. In this regard, Secretary Arne Duncan (US Dep. of Education, 2009) recommends a strong and substantial field based program for teacher candidates where they can learn "Best Practices" in teaching and improve the overall performance of their students.

The current federal and state laws, as well other accreditation organization and professional networks such as VSBPE (Vermont Standards Board for professional Educators), NCATE (National Council for Accreditation of Teacher Education), CAEP (Council for Accreditation of Educator Preparation), NCTQ (National Council on Teacher Quality), ATE (Association of Teacher Educators) have stressed the importance of teacher effectiveness, and set standards to ensure strong teacher preparation programs and teacher quality.

The assumption of the set professional standards is that if teachers are prepared accordingly, then all students will be able to achieve high level of academic success, no matter what demographic groups they belong to; white or black, rich or poor, able or

disable, ELL or Non-ELL, male or female. As NCATE (2013) stresses "closing the achievement gap requires that all children be educated by teachers and other professional personnel who meet rigorous professional standards."(p.7).

The No Child Left Behind Act of 2001 compels all schools to place qualified teachers in every classroom (Education Week, 2011). Similarly, the Higher Education Act mandates teacher preparation institutions to produce quality teachers and directs states to monitor the progress of teacher preparation programs (Kukla-Acevedo & Toma, 2009). The CAEP has recommended five standards for TPIs (Teachers Preparation Institutions) so that they can produce qualified teachers who can raise all students' academic performance and reduce the achievement gaps (CAEP, 2013).

The NCATE has established six standards to ensure highly efficient educators that can have direct impact on academic performance of k-12 students (NCATE, 2013). The VSBPE (State of Vermont, 2013) has developed ten core teaching standards to ensure the quality of teachers in Vermont so that highly effective, competent and caring teachers are prepared for every classroom to maximize the academic achievement of all students.

There are approximately1400 TPIs that produce about 200,000 new teachers every year in the United States (Perry & Straiton, 2011). However, this does not mean that all the new teachers are efficient and sufficiently qualified to address the achievement gap issue in our schools. In a survey, 62 per cent of the new teachers reported that they were not prepared to cope with classroom realities (Levine, 2006a). Similarly, the 2007-2008 school and staffing survey indicated about 40 per cent first year teachers were not prepared very well especially to select and adapt curriculum materials,

apply classroom management strategies and assess students' performance (Coggshall, Bivona, & Reschly, 2012).

The effectiveness of a teacher preparation program depends how TPIs recruit, prepare, offer placement for clinical opportunity, and support the new teachers. The CAEP states that "educator preparation providers must take responsibility to build an educator workforce that is more able, and also more representative of America's diverse population." (2013, p. 5). For this purpose universities/ teachers preparation institutions need to target highly qualified, successful, hardworking and committed student-teachers from diverse cultures, ethnicities, racial and socio-economic backgrounds. They need to be provided with in-depth subject matter knowledge, skills and professional dispositions so that they know what to teach, how to teach the subject matter, employing different teaching strategies.

At the same time, universities and colleges need to offer high quality field experience and clinical practice opportunity to the teacher candidates and provide constant support from their faculties, supervisors and mentors so that the teachers are prepared to teach effectively and raise academic achievement of their students (CAEP, 2013). Similarly, the student-teachers need to develop a social justice perspective that raises their awareness of the role that social, political, cultural, race and class factors play in constructing the classroom environment in which students coming from low income and minority communities often find themselves (Fin & Fin, 2007). Student-teacher should be able to understand how social class, race, gender and ethnicity affect their students' academic performance and how these factors should be addressed in their teaching so that all student become successful (Ukpokodu, 2010; Johnson, 2007).

Teacher preparation institutions should be able to offer specific knowledge and skills to their student-teachers so that they will be able to help all types of learners including students with special needs, ELL learners and students with different learning styles and needs (Samson & Collins, 2012).

To produce high performing public school teachers, teacher preparation institutions/ universities need to have highly qualified faculty members who should be able to "model best professional practices in scholarship, service, and teaching, including the assessment of their own effectiveness as related to candidate performance" (NCATE, 2013, p.1). However, some studies have found that these teacher preparation institutions hire professors, doctoral students and retired k-12 teachers who may not be the most effective instructors and may not represent the diverse backgrounds found in our schools (Perry & Straiton, 2011). This is an ongoing challenge to teacher preparations efforts.

2.4 Research on Teacher Preparation and Implementation of "Best Practices"

NCATE (2008) defines "Best Practices" as those "techniques or methodologies that, through experience and research, have proven to lead reliably to a desired result" (p.85). The phrase "Best Practices" originally came from the professions of medicine, law and architecture. Those good practices applied in field that are solid, reputable and based on current research, latest knowledge, modern technology and innovative procedures are known as "Best Practices (Zemelman, Daniels, & Hyde, 2005). In teacher education we use "Best Practices" are those research based teacher education procedures that result in greater teacher effectiveness and increases the quality of schools resulting in the overall improvement in the academic performance of all students (US Dep. of

Education, 2011). These approaches align research on teaching with student learning and generating a list of effective instructional methods. These approaches can clearly provide evidence of what works and what does not work for students (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009 ; Schnackenberg & Still, 2014).

Levine (2006) and his research team conducted a most extensive study about educating school teachers and their impacts on children's learning. The focus of the four-year study was to investigate whether the teacher preparation institutions (TPIs) were able to prepare high quality teachers who could increase the academic achievement of their students at their highest level.

It was a mixed methods study where both quantitative and qualitative data were collected managing surveys, face to face interviews, document reviews and field visits. The quantitative data were collected from conducting nation-wide surveys with school teachers (referred to as alumni), school principals, faculty members and deans (including chairs and directors of TPIs). Similarly qualitative data were collected by reviewing documents and conducting face to face interviews with selected TPI principals, faculty members, school teachers and students.

It was a national level study where 6,000 school teachers (2,380 responded), 1800 school principals (738 responded), 1500 school districts (566 responded) from 43 states (35 responded) participated in the study. Similarly, 5,469 faculty members (2,187 responded), their deans, chairs and directors took part in this study. Further, to assess the teacher effectiveness on students' achievement, more than 2,000 teachers' evaluations and academic records of their students were reviewed by NWEA (Northwest Evaluation Association) as a part of this study (Levine, 2006a).

The researchers found that only one third of the America's TPIs were doing an adequate job in preparing teachers, while the majority of the TPIs were producing poor quality teachers. Most of the curriculums were out of date and majority of the faculty were disconnected with the changing classroom demographics, global competition, technology, and student achievements. Levine (2006) reported that "Neither the states nor the accreditation process has been able to assure minimum quality standards in teacher education programs." (p. 22).

According to the national survey, overall 62 per cent of the teachers (alumni) responded that the teacher preparation programs they attended did not prepare them enough to cope with the classroom realities. Only 40 per cent of the school principals agreed that the TPIs were doing "very well" or "moderately well" job in preparing quality teachers. The school principals also indicated that small number of TPIs had prepared teachers in addressing needs of students with disabilities (30 per cent), diversity (28 per cent) and limited English proficiency (16 per cent). Less than 50 per cent of the principals responded their teachers were prepared "very well" or "moderately well" in applying technology (46 per cent), student assessment techniques (42 per cent) and implementing curriculum standards (41 per cent) in the classroom (Levine, 2006a).

According to the additional study prepared by NWEA, there was no significant difference in students' performance in math or reading whether the teachers were prepared by nationally accredited TPIs or other institutions (Levine, 2006a). The major reasons identified for the low performance of the TPIs were that the institutions had low admission standards, less qualified faculty, high student faculty ratio, more focus on theory than practical skills and knowledge, and low graduation standards. The researchers

recommend the focus of TPIs should be on teaching skills and knowledge, classroom practice, teacher quality, professional development and student achievement (Levine, 2006a).

Levine (2006) recommends the "Best Practice" of teacher education is to put the emphasis on practice teaching. His suggestion for a successful teacher preparation program is to transform TPPs into professional schools which would allow candidates to practice their teaching skills so that they would be successful in improving the academic performance of all children. Therefore, according to Levine (2006) student achievement should be considered as the primary indicator of success of a teacher preparation program. At the same time, TPPs should equally concentrate on teacher quality so that the candidates have mastery on content knowledge, curriculum design, teaching pedagogies, child development, learning process, classroom-management, and student assessment. For this purpose Levine (2006) calls for a rigorous program of longitudinal data analysis and accreditation so that the effectiveness of TPPs is ensured.

Other research also suggests that there is a strong relationship between teacher preparation programs and student achievement. In a study conducted in Kentucky (Kukla-Acevedo & Toma, 2009), researchers found that only a few teacher preparation programs were able to produce quality teachers, who improved the academic performance of their students. This quantitative study, based on a sample of 2,582 fifth grade math students and their math teachers in an urban school district in Kentucky, considered the effects of math teachers' preparation programs on students' performance. Most of the TPPs did not have significant effect on 5^{th} grade math scores. The researchers did find, however, that the longer the new teachers taught, the more effective they

become and the greater their impact on student achievement. They concluded that TPRs should give more emphasis how student-teachers can gain experiences from their practice teaching (Kukla-Acevedo & Toma, 2009).

Among the student participants, about 50 per cent were female, 64 per cent were white, 33 per cent were African American and 4.5 per cent students were Latino/Asian Americans. Almost 55 per cent of students had received free or reduced lunch. Among the math teachers, 88 per cent were female and 87 per cent were white and, the rest were from other ethnic backgrounds. The math teachers were trained in various teacher preparations programs in the state as well as from other states; however the researchers found that math teachers prepared in Kentucky were more effective than math teachers prepared in other states (Kukla-Acevedo & Toma, 2009).

Education Secretary Arne Duncan (US Dep. of Education, 2009) emphasizes the importance of "Best Practices" of TPPs and asserts that best teacher preparation programs are research based, up to date and provide expertise on subject matters so that the teachers are able to effectively teach diverse students with different abilities. He stresses the significance of strong and substantial field-based programs where student-teachers have opportunity to learn classroom management techniques, understand how students learn and become effective working in local public schools in high needs settings. The overall focus of such teacher preparation process is to improve student learning and the use of research data to upgrade teaching.

Highlighting the "Best Practices" of teacher preparation programs in the United States, Secretary Duncan explained that some successful TPPs had partnerships with local public schools and offered at least two semesters of rigorous field experience to

their student-teachers. The student-teachers were supervised by well-qualified mentor teachers and full time faculty instead of adjuncts. As a result all the education professors were in the public school every day. The student teachers did everything in the class: teaching, managing classroom behavior, conducting student assessment, and participating parent-teacher conferences. They video-taped their teaching and learned from their own experience. The student-teachers were trained how to use their teaching data to improve their own instruction and the academic performance of their students. Thus the focus of the "Best Practices" of teacher preparation, as per Secretary Duncan, was on student achievement (US Dep. of Education, 2009).

Effective teacher preparation programs not only prepare qualified teachers but also improve their students' performance. MacCallum and Ross (2010) have conducted a study about the effectiveness of teacher preparation programs (TPP) in Minnesota. The goal of the study was to identify the characteristics of student-teachers entering into the program, to discover if Minnesota TPP curriculum was aligned with state learning standards and licensure requirements, and to investigate whether TPPs in Minnesota were aligned with "Best Practices".

MacCallum and Ross (2010) have identified the "Best practices" that TPPs can use so that their teachers could improve academic performance of students (of low achievers). The researchers concluded that "Best Practices" (of teacher preparation) can improve students' achievement. However, "Best Practices" are normally difficult to put in action when the goals of TPPs are not clearly defined. They argued that the goal of the TTPs should be to improve student achievement, not just to prepare teachers who could "teach well". This should be clearly stated by the TPPs as their goal.

Another very important aspect of "Best Practices" of TPP is to provide best training to the student-teachers "through a strongly enhanced focus on clinical practice" (p.4) where they obtain professional skills and knowledge especially on how to teach effectively and how students learn in real classroom environment. The student-teachers receive constant guidance and feedback from teaching experts such as cooperative teachers and university supervisors. Thus, based on the their literature review MacCallum and Ross (2010) suggested that the "Best Practices" of TPPs are to improve k-12 students' achievement. Therefore, TPP should provide best training to their student-teachers offering strong clinical practice opportunities, providing in-depth subject matter and pedagogical knowledge, and helping them to understand how their students learn (MacCallum & Ross, 2010).

After analyzing the available data, the researchers concluded that Minnesota's TPPs were admitting well-qualified student-teachers in their program. The candidate's actual average GPA were 3.31 for undergraduate and 3.53 for graduate program compared to the minimum required GPA of 2.57 and 2.80 for admission. Similarly, the researchers found that Minnesota TPP curriculum was not aligned with state learning standards for k-12 students rather their curriculum was linked with teaching standards associated with the licensure requirement established by Minnesota Board of Teaching. Lastly, there was not sufficient evidence to conclude whether the Minnesota TPP curriculum was aligned with "Best Practices" of teacher preparation due to lack of financing or other resources. However, the educators who run the TPPs in Minnesota

were aware about the "Best Practices" of teacher preparation program, and were eager to implement such learning in their program (MacCallum & Ross, 2010).

Darlington-Hammond (2010) conducted an extensive literature review on teacher education and identified characteristics of highly effective teacher preparation programs. According to author, clinical component is the key to success of TPPs based on the evidence of her own study in New York City and other teacher education research conducted in the United States. Therefore, she recommended that teacher education should be treated as professional clinical training.

Darlington-Hammond (2010) stressed that the essential components of "Best Practices" in teacher preparation should have careful supervision on the quality of student-teaching. There should be a match between context of student teaching and student-teachers' teaching assignment in terms of subjects taught and types of students. The TPPs should have adequate amount of coursework in reading, mathematics content and methods of teaching. The focus of the course works must help student-teachers to learn how they can use specific practices and what tools they can apply in their student teaching. The TPPs should also offer opportunity to study local district curriculum and prepare a capstone project in classrooms with their students.

According to Darlington-Hammond (2010), previous research on teacher preparation had also similar characteristics of "Best Practices". She finds that "powerful teacher education program should have a clinical curriculum and as well as a didactic curriculum" (p. 41). TPPs should teach student-teachers to apply the knowledge and skills they learn from their curriculum into action. In other words, there should be an environment where student-teachers can systematically apply different tools such as

curriculum materials, differentiation techniques, assessment strategies and techniques of organizing groups in classroom situations. After the implementation of their lesson, the student-teachers should receive detailed feedback from experts so that they can further improve their teaching, and this should be followed by systematic reflections of their learning from the student teaching.

Teacher preparation program should be able to produce teachers who have the skill and knowledge to address the current and future challenges of our schools. They should empower teachers to respond to diversity and be accountable for promoting learning environments for various types of learners (Chiero & Beare, 2010). These researchers from Fresno, California, conducted a study comparing the effectiveness between online-supported teacher preparation programs with the traditional campus-based teacher preparation programs of a large state university in California.

Based on their literature review, Chiero & Beare (2010) identified some characteristics of "Best Practices" of teacher preparation. One of the very important features is that TPPs should emphasize continuous research on how to educate future teachers effectively. Secondly, there should be closer contact between TPPs faculty and school districts personnel. This may include superintendents, school teachers, administrators and other staff. Third, there should be increases in field experiences for the student-teachers, who should also be offered a series of courses aligning the programs with the state content standards. Fourth, teacher education programs should have strong links between course work and clinical field experience that should follows good teaching practices. Fifth, the teacher preparation curriculum should have "an integrated program design" that supports student-teachers' ability to learn the complexities of

teaching and translate them into practice (p. 781). Sixth, field experience should be considered the most influential component of teacher preparation program. Therefore, an early field exposure should be provided to the teacher-candidates so that they can get the idea of a big picture of teaching profession. Lastly, teacher education institutions should conduct rigorous research to find evidence whether their program is effective in producing qualified teachers capable of improving student achievement.

Chiero & Beare (2010) invited the graduates of the state university who had completed one year of their teaching to take part in this research effort. The supervisors of the new teachers engaged in the annual evaluations of the new teachers from 2003 through 2009 also participated in this study. The new teachers and their supervisors were asked about the extent to which the graduates were prepared on the important teacher skills, such as lesson planning, student motivation, classroom management, use of technology, promoting equity, teaching English language learners, meeting the needs of special learners, and instructing lessons on language arts, math and other subjects. The new teachers were also asked about their ratings on overall course work and their field work. The responses were collected in four 4 point likert scales; well prepared, adequately prepared, somewhat prepared and not at all prepared (Chiero & Beare, 2010).

In a North Carolina study (Henry et al., 2011), the researchers concluded that teacher preparation program implemented by Teach for America (TFA) was the most innovative and was considered the "Best Practices" and that other TPPs should transform the preparation efforts based on this experience. The researchers found that teachers prepared by TFA were most effective than others in improving students' performance in

math, science and English especially in the high poverty schools, both in high schools and middle schools settings (Henry et al., 2011).

The main reason of such success was that TFA applied extensive teacher selection, preparation and follow up processes. Teachers were selected based on the soft skills such as leadership, commitment, academic performance and their abilities to engage with students. They were prepared to meet the objectives of state curriculum and were supervised and supported by experienced teachers. The new teachers were provided immediate constructive feedback to enhance their teaching.

In addition to that, the teachers received professional development and other supports to improve their teaching skills for the first two years of their teaching services. The study also found that teachers prepared in the public institutions within North Carolina were more effective than the teachers prepared in other states. The findings suggest that North Carolina's teacher preparation practices are linked with student achievement. Therefore, it can be concluded that the learnings from the North Carolina study should be embedded in preparing student-teachers in "Best Practices" of classroom of teaching for our public school system so that the academic performance of all students can be improved. Similarly, the productivity of teacher preparation institutions should be improved and innovative teacher preparation programs should be designed based on the learnings from TFA experiences. It was a quantitative study which included over 900,000 students and 20,000 public school teachers over the four years period, during 2004/05 to 2007/08 academic years (Henry et al., 2011).

High quality clinical practice opportunity is another important component of teacher preparation program that can have positive impact on improving teaching

excellence of student-teachers. This experience can have highest possible effects on the outcomes of teacher candidates (NCATE, 2010). Research shows that new teachers prepared in an intensive clinical environment supported and supervised by qualified staff were better prepared in their profession, had greater teacher efficacy and higher retention rates in their teaching job. A team of researchers (Greenberg, Pomerance, & Walsh, 2011) conducted a comprehensive evaluation on field experience of teacher candidates who were enrolled in different TPIs in the United States. The researchers concluded that 74 per cent of the institutions had student teaching programs of low quality (25 % "poor" and 49 % "weak") student teaching. Only 7 per cent of the sample TPIs had "model" and 18 per cent had "good" student teaching programs. The evaluation was based on five critical standards relating to the length of placement, the teaching experience of cooperative teachers, the cooperative teachers' mentoring skills, the positive impact on student learning, and the selection process of mentor teachers. A sample size of 134 higher education institutions were selected using stratified random sampling method for this review which was designed to include at least three teacher preparation programs in every state including the District of Columbia.

This study was based on mixed method research design in which researchers collected and evaluated large number of documents from TPIs, school districts and surveyed school principals where the student teachers were placed for their practice teaching. In addition to that, the researchers visited five sites and interviewed the student-teachers, mentor teachers, program supervisors and field placement coordinators to triangulate the data and have a better understanding what was going on in the field (Greenberg et al., 2011).

Another study, concluded by Papay et al. (2011), examined a variety of inter-related factors when assessing the effectiveness of a teacher preparation program in Boston. These actors included recruitment of student-teachers, course orientation, field work with mentor teachers and supervisors, and follow-up support offered to the beginning teachers. This study shows that TPIs who follow a rigorous student-teacher recruitment process, and prepare and support them in their professional career, can minimize new teacher turnover and improve their students' overall academic performance in the long run (Papay, West, Fullerton, & Kane, 2011). A team of researchers (Papay et al., 2011) conducted a study about the effectiveness of Boston Teacher Residency (BTR), an alternative teacher preparation program which was designed and implemented as a partnership project by Boston Public Schools and Boston Plan for Excellence. The Boston Public Schools (BPS) had 56,000 students in 135 schools. The practice based teacher preparation model was grounded in clinical experience and interlinked with academic course works which leads to license program from the University of Massachusetts, Boston (Papay et al., 2011).

After analyzing student and teacher records from 2001/02 to 2010/11 school years, the study concluded that BTR had five years retention rate of 75 per cent compared to 51 per cent of other Boston public school teachers. Furthermore the BTR graduates were, when compared to the other teachers, more effective in teaching 4^{th} to 8^{th} grade math in their fourth and fifth years of teaching though their performance was comparatively lower in the earlier years based on Harvard Value Added Analysis. However, BTR graduates were better performing in teaching 4^{th} to 8^{th} grade English language arts in their second and third years of teaching than other Boston school

teachers. Researchers also found that the new teachers teaching math, science and English language arts were more racially and ethnically diverse than the other teachers in Boston public schools (Papay et al., 2011).

The major reason of success of the teacher preparation program was that BTR followed rigorous teacher candidate selection process that considered both Boston public school needs and candidate qualities. The candidates must make a commitment to teach BPS at least three years after residency. The new teachers work under the supervision of a mentor teacher for one year, at least four days in a week. At the same time, they need to attend courses with BTR program staff. BTR provides ongoing support to the new teachers at least for the next two years (Papay et al., 2011).

This was a quantitative study with a sample size of 50 BTR graduates (20 % of the total program graduates) whose performance was analyzed and compared with other Boston school teachers. In another survey, 94 per cent Boston school principals expressed that they were willing to hire other BTR prepared teachers. The survey concluded that 93 per cent of the BTR graduates were graded as equally or more effective than their peers with the same years of experience. Similarly 71 per cent of the BTR graduates were rated as excellent or above average teachers (BTR, 2013).

The SAS Institute, Inc. conducted a study about the effectiveness of teacher preparation programs (TPPs) in Tennessee based on the analysis of data about the performance of each program graduates and their placements (Tennessee Higher Education Commission, 2012). The goal of the research was to assess whether the TPPs were able to produce highly effective new teachers and to determine their program quality among the traditional license and alternative license programs. It was a

quantitative study analyzing the data related to area of placement, retention, Praxis II results, and teacher effect based on the Tennessee Value Added Assessment System (TVAAS) scores. All the program completers from cohort year 2007-08 to 2010-11 (3664, 4277, 5082 and 5,109) graduated from 44 different TPPs participated in this study. Among the 2010-11 cohort 86 per cent were white, 78 per cent were female and 86 per cent were from Tennessee. The average GPA of the 2010-11 completers was 3.57 (alternative licensed 3.62 and traditional licensed 3.56).

The researcher found that about 53 per cent of the cohort 2010-11 program completers were teaching in the public school in Tennessee in their 1st year and almost 48 per cent of the previous graduates were teaching in the state for three consecutive years. Both the traditional and alternative licensed program completers from cohort 2010-11 were teaching equally well as the experienced (veteran) teachers in 4th to 8th grade math, science, social studies and high school biology I, English I, English II and U.S. history. However, the same group were performing less compared to other experienced teachers in 4th to 8th grades reading/language arts , TCAP (Tennessee Comprehensive Assessment System) composite scores, other high school courses (algebra I, algebra II) and end of course composite scores (Tennessee Higher Education Commission, 2012).

2.5 Summary

This review of major research on teacher preparation programs (TPPs) published from 2006 to 2013 reports on the huge demand of high quality and competent teachers in our public schools who are capable of improving the academic performance of all students and thereby addressing the challenges of closing the academic gap. However,

much of the research suggests that TPPs were not performing adequately in this respect. Many researchers report that new teachers were not being prepared well enough to cope with classroom realities and that there is little evidence to show that they have been having a desired effect on student achievement (Levine, 2006; Kukla-Acevedo & Toma, 2009; Greenberg et al., 2011; Tennessee Higher Education Commission, 2012).

However, there are other studies that offer more favorable conclusions, noting that some of the TPPs, especially in the recent years, have been increasingly successful in preparing competent and diverse teachers who were able to produce satisfactory performance in their classrooms. The TPPs are also preparing greater number of teachers from different race, ethnic background in the shortage areas such as in math, science, social sciences, English and foreign languages (Henry et al., 2011; Tennessee Higher Education Commission, 2012; BTR, 2013). The success of these TPPs is tied to the fact that they followed rigorous and culturally/ racially diverse student-teacher selection processes, offered extensive course works, linked the program with quality field experience and provided follow up supports to their beginning teachers. The course and field experiences focus was on how the student-teachers learn important teacher skills such as lesson planning, student motivation, classroom management, use of technology, manage equity and diversity related to English language and other special- needs learners (MacCallum & Ross, 2010; Greenberg et al., 2011; Henry et al., 2011; Papay et al., 2011).

The student-teachers discussed above were prepared, supported and supervised by experienced, qualified and competent staff, faculty members and mentor teachers. They were offered immediate and constructive feedback to improve their teaching. They

were prepared to meet the objectives of state curriculum and teaching standards. After the completion of the teacher preparation program, the graduates were provided ongoing professional and other supports at least for some years (Chiero & Beare, 2010; Greenberg et al., 2011; Henry et al., 2011; Papay et al., 2011).

According to the above literature review, "Best practices" of teacher preparation are based on current research, latest knowledge, modern technology and innovative procedures of teaching. These practices are reliable, solid, reputable and aligned with teaching standards that may lead to a greater teacher effectiveness, and will have significant impact on the academic performance of all children (Zemelman, Daniels, & Hyde, 2005, Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009, US Dep. of Education, 2011). "Best Practices" concentrate on teacher quality through rigorous clinical practice where the strong focus is on content knowledge, curriculum design, teaching pedagogy, child development, learning process, classroom management, assessment strategies, differentiation techniques, with the targeted goal of teaching all students effectively, responding to their diverse needs and different learning styles (Levine, 2006; US Dep. of Education, 2009; Darlington-Hammond, 2010). Student-teachers are supervised by well-qualified mentors and experienced faculty members, and receive constant guidance and immediate feedback so that the teacher candidates can improve their own instructions and the academic performance of their students. The teacher educators apply an extensive candidates selection process, conduct rigorous research on "Best Practices" of teacher preparation, and prepare the candidates in such a way so that they can teach effectively and increase student achievement (US Dep. of Education, 2009; MacCallum & Ross, 2010; Chiero & Beare, 2010).

In conclusion, the major contributing variables of "Best Practices" of teacher preparation program are rigorous student-teacher selection process, quality of course works, intensive field experience, competent faculty/staff, experienced mentors, and ongoing professional support to the beginning teachers. The new teachers only become successful at improving the overall academic performance of all students and minimize the achievement gaps when they gain in-depth subject matter and pedagogical knowledge. At the same time, they learn important teacher skills such as lesson planning, student motivation, classroom management, use of technology, and manage and organize groups. They are, therefore, able to respond diverse and various types of learners, and meet state curriculum and teaching standards.

However, there is very little research about "Best Practices" that specifically addresses the social justice and equity purposes undergirding the preparation of teachers aimed at effectively teaching low achieving students, particularly those who come from lower income families and/ or from black or minority groups. This study may fill the research gap by investigating how NEU faculty view their performance preparing future secondary school teachers with the "Best Practices" in classroom teaching that are aimed at teaching these justice-related goals.

Based on the above literature review I have summarized the list of "Best Practices" of teaching which are specially focused on educating low achieving students who come from low income families and / or students from black or ethnic minority groups. They are presented in the following Table no. 3.

Table No 3: "Best Practices" of Teaching to Low Achieving Students

A teacher who is prepared in "Best Practices" of teaching specially to low achieving students should be able to:

- Differentiate instructional techniques and strategies to effectively teach students with diverse learning needs
- Select and adapt curriculum materials to be responsive to different learning styles
- Acquire skills, understanding, and attitudes to deal with issues of prejudice, discrimination and stereotyping that emerge in classroom settings
- Examine how their biases and privileges related to race, class, and gender affect their interaction with students
- Understand of how factors related to social class, race, gender and ethnicity might affect to students' performance in school
- Provide learning opportunities that address the needs of students with disabilities
- Offer learning opportunities that address the needs of students with limited English proficiency
- Integrate technology to address the needs of students with different learning styles
- Have cultural understanding of students, families and communities, and develop a classroom climate that values diversity and different cultures
- Have knowledge of variety of assessment techniques and employ the techniques to meet the needs of diverse learners for appropriate outcomes.

These "Best Practices" of teaching will be the major reference points for the interviews of faculty in this study. In addition, I will discuss these practices as the framework when discussing my findings and offering recommendations in the final chapters of this study.

CHAPTER 3: METHODOLOGY

The secondary education program at NEU is dedicated to preparing outstanding teachers who can make a difference in the lives of children, youth, families and communities. The program promises to educate highly competent and caring teachers through innovative professional practices and scholarship so that the teachers are able to work with students with diverse needs, adapting "Best Practices" of teaching especially in curriculum design, lesson planning, instruction, classroom management, and assessment to ensure the success of all students. The secondary education program at NEU seeks to employ reflective learning and clinical practices that are based on the principles of inclusion, multiculturalism, equity, constructivism, collaboration, human development and empowerment (NEU, 2013b).

NEU is one of the leading institutions in New England which prepares a substantial percentage of the public school teachers through its traditional four year graduate licensure program. The overall purpose of this qualitative study is to develop a better understanding of the faculty's perception of what they and the NEU teacher education program are doing to prepare future teachers in "Best Practices" of classroom teaching, with a particular focus on reaching low achievers and closed the achievement gap. Further, this research investigates what the faculty think they and their program are doing well, what they need to improve, and what needs to be added to their teacher preparation process.

In this chapter, I will discuss the research design, my justification for choosing this research method, the selection of participants involved in this study, the sampling

process, the instruments used to collect the data, and my mode of the data analysis and interpretation.

3.1 Research Questions

This study is guided by the following three major research questions:

1. What do the NEU faculty members think they bring to their work: their goals for education, their sense of professional efficacy, their view of what a good teacher should look like?
2. How do the NEU faculty members describe their success in introducing "Best Practices" in classroom teaching? What do they feel that they do well as professionals and where do they feel they need to improve or change?
3. What do these NEU faculty members believe they and their secondary teacher education program must do to improve the preparation of their student-teachers in "Best Practices" of teaching, with specific reference to effectively teaching low achieving students?

3.2 Research Design and its Rationale

The overall purpose of this study is to gain a better understanding of how the NEU faculty members in the secondary education program assess, through their own words, their effectiveness and identify area for improvement as they prepare teachers in "Best Practices" of teaching who can effectively teach low achieving students. I am interested in teacher educators' perceptions, rather than trying to measure their student

outcomes or competencies. I explored the actions, perceptions and motives of the teacher educators and the ways they interpret their experiences. I am employing a qualitative research design so that I can develop a rich, in-depth and detailed understanding of their assessment, their own and their program's efforts to prepare competent teachers (Patton, 2002; Borrego et al., 2009).

In the qualitative method design, a researcher or a group of researchers try to understand social phenomena from the perspective of those populations who are going to be studied. There is an effort to explore rich, depth and complex information of the social phenomena so that answers of why and how can be discovered. Qualitative method helps researchers to understand how people do things, how they interpret, and how they interact with and experience their world (Creswell, 2012). Qualitative research method is an interpretive, naturalistic approach to understanding human behavior, their context, their thinking, their feelings, their emotions, their perceptions, their experiences and their reflections on a situation (Biggerstaff, 2012). Maxwell (2013) argues that qualitative research method is especially useful when researchers are trying to understand the meaning of participants' actions, how it makes sense to them and how their understanding influences their behavior. This method is generally used to study small number of individuals or situations to learn about a particular context in which participants act, and how they view and interpret that context.

This research study draws on several different qualitative research methods. It is closely related to case study design that focuses on an individual person or an institution or an event or a group and involves the in-depth examination to find answers to specific research questions. It explores a real situation and tries to find the meaning of an

experience. It helps to formalize experiential knowledge and promote quality of learning of a specific event or case or institution (Hennink, Hutter, & Bailey, 2010). It also includes characteristics of the phenomenological approach which focuses on human lived experiences based on the stories/ interviews of the people who have involved and experienced (Marshall, 2011). There are also descriptive evaluative dimensions to this study. The overarching goal of this study is to understand the teacher preparation process at NEU through the words of those responsible for much of the formal instruction and to identify strengths and areas needing improvement, as they see them.

Since I have a deep and abiding interest in this topic for a long time, an intrinsic case study method of qualitative research design is probably the most suitable research design for the purpose of this study (Baxter & Jack, 2008). An intrinsic case study is this type of case study, where researchers have a genuine interest in a case and the study is undertaken for better understanding of the situation. Intrinsic case study is conducted to learn about a unique phenomenon in a specific context with the purpose of understanding the actions and motives of participants rather than to learn an abstract construct or build a theory from the study (Baxter & Jack, 2008; Crowe et al., 2011)

3.3 Target Population and Sample

As discussed in the previous section, I have adapted intrinsic case study design of qualitative method to investigate how the NEU faculty members perceive themselves in preparing secondary school teachers with respect of implementing “Best Practices” of teaching with the goal of meeting the needs of low achievers. The target population for this study are faculty and staff members (N=8) who are engaged in one or more of the

following teacher preparation, program monitoring and administration of secondary education program at NEU. For the purpose of this study I have interviewed all faculty members engaged in teaching methods courses and others who are engaged in preparatory courses for secondary teaching or program monitoring.

3.4 Instrument Descriptions

I collected the qualitative data conducting interviews with the faculty members who teach methods courses and other courses to the student-teachers at the NEU secondary teacher preparation program. Through interviews, a researcher can gain insight into the meaning assigned to particular actions and events by the participants. In the interview process, the interviewee is considered as an expert on the subject whereas the researcher participates as a learner or a student (Patton, 2001). However, it is very important that the researcher asks open ended questions to the interviewees in as neutral manner as possible, listen very carefully and offer follow up questions based on the responses (Qu & Dumay, 2011).

There are various categories of interview design practiced in collecting qualitative information. These include: e-mail interview, informal/ face to face conversational interview, general interview guide approach, standardized/ open ended interview, closed/ fixed-response interview, structured interview, unstructured interview and semi-structured interviews (Turner, 2010; Qu & Dumay, 2011). For the purpose of collecting qualitative information in this study, I applied a face to face semi structured in-depth interview method. Semi-structure interviews which are particularly suitable where already prepared open ended questions are being asked to participants that will enable the

researcher to discover the way interviewees understand or perceive their world (Hesse-Biber & Leavy, 2011).

In this semi-structured interview, I asked open ended questions to the NEU faculty members, to explore their deep experiences, and to collect rich information about their feelings, perceptions and perspectives on the research subject (Guion, Diehl, & McDonald, 2011a). Open ended questions provided freedom to the faculty members to answer the questions in their own words. To ensure that the questions were appropriately focused and that my interview style did not reflect my bias, I conducted pilot testing, which will be discussed below (Qu & Dumay, 2011).

3.5 Interviews

I collected qualitative data by interviewing the faculty members who teach methods and other courses in the secondary teacher preparation program at NEU. The faculty members were asked six major open ended questions: what motivates them in their preparation of teachers, how they prepare teachers so that they can effectively teach low achieving students, what obstacles they face in the teacher preparation process and what are the areas do the faculty members think they need to improve. Further, they were asked what their program does beyond what they do, what aspects of the teacher preparation program need to be changed or improved and what teaching skills or competences they think need to added or removed from the list shared with them by me during the interview process. The questions for these face to face interviews with the faculty member and the list of teaching skills or competencies that I shared with the faculty are listed on Appendix A. The questions for the face to face interview were

developed based on the literature review, particularly discussed on the theoretical framework in chapter two.

Scholars such as Linda Darling-Hammond and Arthur Levine have advocated the importance of "Best Practices" in classroom teaching to ensure professional standards and increase the competences of teachers. If this result is achieved, then, the teachers will be able to teach all students effectively, including the low achieving students and improve the overall academic performance of all.

3.6 Pilot Testing of the Interview Questions

Before conducting the real face to face interview with the faculty members, the questionnaire developed for interview was tested by a pilot study. One faculty member of the NEU participated in the pilot face to face interview. The purpose of the pilot test was to evaluate the clarity, validity and reliability of the questions, and to minimize the errors in the interview process. At the pilot testing, I checked whether the participant found the questions clear and see if they generated the sorts of answers that provided me with the data I was seeking (Creswell, 2011).

Other important aspect of pilot testing was to identify possible non-sampling errors (such as misunderstanding of questions, sequencing of questions), minimize time and cost, and to improve the quality of data. To improve the clarity, validity and reliability of interview questions, I also requested one of the research experts at NEU to review the interview schedule so that potential problems could be identified before conducting the actual face to face interviews (Blair, Czaja, & Blair, 2013). After the pilot testing of the questions, I modified all the questions to some degree to ensure the

questions would be understandable to the interviewee and useful to my research. I also re-arranged the order of questions so that it would be easy for the interviewees to express their experiences step by step.

3.7 Sampling Design and Sample Size

Sampling is a process of selecting a small number of portion or cases or units from a group or population so that unknown information, predictions or conclusions can be drawn about the total population (Peck, Olsen, & Devore, 2010). The primary goal of qualitative sampling is to collect cases, events or actions that can explain and provide in-depth understanding of the subject matter (Neuman, 2012).

I employed purposeful sampling method, selecting all the NEU's secondary education faculty members who have been directly involved in the secondary teacher preparation program. They are engaged in teaching, student supervision, program management, and partnering with schools and community organizations linked to the secondary teacher preparation program. In addition, two other participants from NEU were interviewed. One of them is engaged in gathering data related to accreditation aimed program monitoring and ensuring the quality of the program, and other is affiliated faculty member who is involved in indirectly contributing to the secondary education program. In addition to teaching, the 2nd faculty helps teacher educators and student-teachers develop pedagogical skills aimed at achieving equity goals. Even though eight persons were interviewed, only information acquired from the interviews of the six directly engaged in secondary teacher preparation program are reported here. The other two interviewees provided me with useful contextual information.

3.8 Research Administration and Data Collection

Immediately after my research proposal endorsed by the dissertation committee, I sought approval from Institutional Review Board (IRB) to conduct this study. I carefully followed the IRB guidelines while operating this study, and ensured that research participants' opinions and identity are protected.

First, I received permission to interview the faculty members from the Chair of the teacher preparation program. I then, e-mailed or met the faculty members, explained the purpose and objectives of this research, and asked for their voluntary participation. After the faculty members agreed to participate in the interview, I scheduled a convenient time for interviews in their offices. I, then, e-mailed the face to face interview questions to the participants so that they would know what I was expecting to learn from them. At the time of the interview, I handed a printed copy of the questionnaire again to make sure that they can read the questions if they had hard time to hearing me or difficulty understanding the interview questions. Before I started the interview process, I again explained the purpose and objectives of the research and ensured that their identity would be protected. At that time, I asked the faculty for their consent to acknowledge that they were aware about the purpose of the research and that their participation was voluntary. I let them know that they could decide to withdraw from the interview any time if they were not feeling comfortable.

I conducted the interview with the faculty members individually in their offices in closed door environment where there was no outside distraction. I asked pre-designed six open ended questions and presented the list of competencies of "Best Practices" in classroom teaching (as listed on Appendix: A) to the faculty members. I occasionally

paraphrased or re-phased the questions and or asked for clarification questions. However, I did not impose my ideas that I wanted to hear from the interviewees, instead I believe I created environments where the participants were able to express their opinion without any hesitation. I wrote notes while I was interviewing the participants. At the same time, the discussions were recorded in a voice recorder and transcribed into word document after completing the interview.

I ensured that the participants' real name did not appear anywhere in the document, and all the data, audio tapes, transcription notes were kept in a locked cabinet. All the software processed or unprocessed data were kept in my security coded laptop computer and in a backup devise in my locked cabinet. There was no access to the data for anyone other than myself, and I intend to destroy all the original data after the completion this research report.

3.9 Data Analysis

As discussed earlier, this study was based on the primary source of data collected from faculty interview. I started processing the qualitative data after I had transcribed the interview into a word document. I then, followed an inductive analysis process of qualitative research analysis where a researcher repeatedly reads the transcribed document, compares the data, gives codes for the ideas, identifies the common themes or categories and excerpts from the data (Patton, 2002, Hesse-Biber & Leavy, 2011). As Thomas (2006) states "the primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes

inherent in raw data, without the restraints imposed by structured methodologies" (p. 238).

Because I was using this the inductive approach, I did not apply any predetermined codes derived from a theoretical model or based on any existing literature on the subject (Kodish & Gittelsohn, 2011). First, I read the entire transcribed documents thoroughly and developed a general understanding of the interview outcomes. While reading the document, I looked for similarities and differences of the ideas on "Best Practices" of teaching, identified key words or phrases, feelings or perceptions of the faculty members on the subject, and tried to understand the patterns. I determined what is important and what is to be learned from the interviews by breaking the data into manageable units and writing short memos. I continued this process until there was a saturation point where I did not have any more new ideas (Simon & Goes, 2011).

Once I had a detailed understanding of the transcribed information, I developed a qualitative codebook that emerged while I was reading the interviews. A code book is a statement of codes for the database that helps to organize the data and enables researchers to draw conclusions (Creswell, 2011). The codes were developed from the exact words or phrases used by the faculty during the interview process or from the words relating to the subject matter. I then divided the text into different phrases, sentences and paragraphs and offered codes for each different idea and leveled the codes accordingly. Once the coding and leveling process was completed, I grouped the codes, understood the concept in a broader form, and developed themes from the ideas. I then, grouped the themes into even larger dimensions or perspectives so that I was able to find the answers to the research questions (Hesse-Biber & Leavy, 2011).

It was a very complicated process for me to do the coding, leveling, and developing themes manually. So I used Hyper Research tool to develop codes from the data and labeled the codes. Hype Research is a computer software program for qualitative data analysis which offers coding for interviews, arranges the interview into different themes, and retrieves the information as needed and helps to analyze the data to answer the research questions (Creswell, 2011).

3.10 Reliability and Validity

Reliability and validity are two of the most essential components of research. Research becomes worthless, valueless or trustless if no attention is given on these aspects. Therefore, strategies must be developed to establish trustworthiness of a study so that credibility, transferability, dependability and conformability of the research outcomes are possible (Simon & Goes, 2011). Reliability refers the ability to replicate results of a study in different locations by different persons under different conditions. As Oluwatayo (2012) states "for a research to be reliable, it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context, similar results would be obtained" (p. 395). This definition may not be truly applicable in my study because the opinion of other faculty in another TPP may have different opinion even if the study is conducted in a similar context. Validity is related with the meaningfulness of a research. It indicates to what extent an instrument actually investigates what it was planned to investigate and how much the result allows the researcher to make inferences about the subject (Lindell & Ding, 2013). It is a sign of accuracy to what extent the research conclusion is close to the reality.

I gave clear instructions to the face to face interview participants. I ensured that the questions were simple and easy to understand for them. Before conducting the actual face to face interview, I conducted a pilot test of the face to face interview with one faculty member, and asked him to identify any problem he encountered understanding the intent of the questions or the research in general (Burton & Mazerolle, 2011).

After receiving feedback from the faculty on the interview questionnaires, the instructions and the questions were improved accordingly. I arranged the questions in such an order so that it would be easy for participants to answer. I ensured that the interviewees had adequate time to answer the questions (Lindell & Ding, 2013).

I put my best efforts to ensure fairness, quality, consistency or trustworthiness of research outcome. For this purpose I encouraged the faculty members to express their opinion without any restriction. I only asked follow up questions for clarifications or encouraged them to express their opinion, if they were failed to address a concept or idea that emerged as particularly important from my review of literature (Creswell, 2011). Once the face to face interview was conducted with the faculty members, the recorded words were transcribed into a word document. I listened to the voice recording carefully again and again, and make sure that no part of the interview was missing in the transcription process (Marshall, 2011). I organized follow up interviews with some research participants when I found that transcribed information was not clear to me. I sent a brief, follow up e-mails with four faculty members when I noticed I did not have adequate or clear data in response to my interview questions.

Then the transcribed documents were coded, grouped and developed themes from the transcription. I applied another strategy to address the validity and reliability

which is known as “peer review”. I asked one of my faculty members to read the transcribed document and see if he comes up with the similar themes as I did. I used similar words, languages and concepts as much as possible from the transcribed document while interpreting the interview outcomes (Simon & Goes, 2011).

I then sent the transcribed interview to some interviewees when I was not very clear about their response so that I could verify the information and make sure that their opinion was well represented. This process is known as “member checking” which allows the stakeholders the opportunity to correct errors of facts or errors of interpretation (Simon & Goes, 2011).

Throughout this effort, I engaged in “expert review”, where I requested my dissertation advisor, committee members and one more external research expert to review, critique, guide, and provide me feedback in all my research process and products. Since this group of expert consists of people from different disciplines, they brought different prospective and theoretical understandings on the research subject (Guion, Diehl, & McDonald, 2011b). I asked feedback from designing the questions to interview process, coding, theme development, formal data analysis and answering the research questions. I requested the external expert to examine whether or not the research interpretations, findings and conclusions were supported by the data (Cress et al., 2010).

3.11 Limitations of this study

This study has various limitations and delimitations relating to nature of the conclusions that I can draw, the selection of my research population and participants, and my research methodology and outcomes. First, since my research has focused on the

perceptions of the secondary teacher preparation faculty of their performance, I am not in a position directly to assess the teacher preparation program myself. My comments are derived from the words of those interviewed. Second, this study is limited to a single case of study of NEU, and there was no comparative data provided from other teacher preparation programs in New England that could have served a comparative purpose. Third, this study is concentrates only on the secondary teachers, excluding faculty in the middle and elementary teachers' preparation programs. Therefore, no data were gathered about the perceptions of these other groups of teacher educators at NEU.

Fourth, there is a methodological issue, especially on sampling and selection of research instruments. I applied purposeful sampling, interviewing only faculty members who were fully engaged in teaching methods courses and other teacher preparation courses. Other faculty members who are partially involved in the teacher preparation program were excluded. As a result, the perceptions of the principal faculty stakeholders are included, but those who are marginal contributor to the preparation of these student-teachers are not. No doubt, some insights have been lost, but constraints of time made additional interviews not possible.

Fifth, this study depended exclusively on interviews with the faculty and did not consider data from field observations, course content analyses, and other document analyses. A more multi-faceted research effort would have enabled me to gather data from more sources. A future research effort might compare what the faculty say they do and what actually happens, for example, in the classrooms. Time constraints made doing this sort of research impossible.

Finally, since this study is limited to a single case of study of the perceptions of faculty in NEU's secondary teacher preparation program, its findings may not be generalized even in New England to other teacher preparation programs. That does not mean that some of the findings might not be useful to those at other teacher education institutions. No doubt, there are some similarities in the perceptions of their work held by teacher education professionals at different institutions.

CHAPTER FOUR: FINDINGS

The purpose of this qualitative research is to understand how the faculty of the NEU find themselves in preparing secondary school teachers with respect of implementing "Best Practices" in teaching with the goal of meeting the needs of low achievers. To achieve the goal of this study, I conducted semi-structured individual interviews with those faculty members who are directly engaged in preparing teachers at the secondary education program to learn how these faculty members prepare teachers implementing "Best Practices" of teaching. Once the interview was conducted from each faculty, I then transcribed the voice recorded interviews into a word document and stored it in my pass-word protected computer. I used the qualitative software Hyper-Research application computerized package to code the transcriptions. The coded data then were compared and summarized in a Microsoft Excel document to determine similarities, pattern and themes of the information.

I critically analyzed the data and explored what the faculty members thought they bring to their work, what was their goal for education, how they felt about their professional efficacy, what they and their program were doing well, and what they felt they need to improve or change. This chapter provides the profiles of the participants, offers a brief elaboration on the purpose of each research question, and then presents a detailed discussion of the answers to each research question, identifying similarities, patterns and themes that emerge from the interviews. In the next and final chapter, I will analyze some of these findings, offer a conclusion, and make recommendations for the improvement of the teacher preparation program at NEU.

This study was guided by the following three major research questions:

Research Question 1: What do the NEU faculty members think they bring to their work: their goals for education, their sense of professional efficacy, their view of what a good teacher should look like? This research question focuses on the motivation factor of the faculty members, their background, knowledge, skills, strengths, work experiences, expertise, confidence, vision, commitment and their belief or orientations in preparing secondary school teachers. It also explores the competencies that the faculty members think a good teacher needs to have to effectively teach low achieving students, particularly those who come from low income families and/ or students from black or ethnic minority groups.

Research Question 2: How do the NEU faculty members describe their success in introducing "Best Practices" in classroom teaching? What do they feel that they do well as professionals and where do they feel they need to improve or change? This research question investigates how successful the NEU faculty members believe they are in introducing "Best Practices" of teaching and transforming the competencies to their students who are prospective teachers so that they can teach effectively. It also looks how they report the competencies are embedded in the curriculum and how they incorporated in the teaching and clinical practice process so that the future teachers can adapt those skills in their own teaching. Lastly, this research question investigates how the faculty members describe their own success in implementing "Best Practices" of teaching and the areas they feel they need to improve or change.

Research Question 3: What do these NEU faculty members believe they and their secondary teacher education program must do to improve the preparation of their student-teachers in "Best Practices" of teaching, with specific reference to effectively teaching low achieving students? This research question is concentrating on the areas that the faculty members need to do better job in implementing "Best Practices" of teaching as a team or as a department especially in curriculum management, collaboration, integration, communication, net-working, sharing, information dissemination and the creation of a supportive and stimulative teaching/ learning environment. Further, this research question explores obstacles/ difficulties that the faculty members may face within themselves and both inside and outside their department, especially relating to resources, teaching practices, service learning, clinical practice and critical issues such as prejudice, discrimination, stereotyping, race, poverty, and gender.

Eight participants were interviewed for this study, among them six participants were fully engaged in the secondary teacher preparation process. They were engaged in teaching, student supervision, program management, and partnering with schools and community organizations with work related to the secondary teacher preparation program. The remaining two participants were indirectly contributing to the secondary program, monitoring and providing accreditation-related support to the program or offering professional development in teaching related to achieving equity goals. One of them is mostly engaged in quality assurance of the teacher education program.

All the participants were from white, non-Hispanic backgrounds, among them two were male and six were female. All the participants have doctorates in their field of profession, with teaching or administration experience ranging from 8 to 48 years. Seven out of eight (87.5%) participants are employed in tenured or tenure-track positions. Since all the interviewees were directly or indirectly involved, partly or fully teaching in the secondary education program I will call them faculty or participants in the following findings for the reporting purpose.

4.1 Findings:

Research Question One: The first research question was designed to learn what the NEU faculty members bring to their work; their goal of education, their sense of professional efficacy and their views of what a good teacher look like. Based on the analysis of the coded data, the major themes that emerged from the faculty interview were strong commitment, advancement of knowledge, professional effectiveness and effectively teach to all students. The detailed discussions of the major themes follow.

4.1.1 What the NEU Faculty Members Bring to their Work?

All the faculty members expressed a strong commitment to preparing outstanding teachers that is rooted in their belief in social justice and equality. In this regard, the faculty offered following perspectives:

> "I have very strong commitment to social justice in terms of preparing secondary school teachers. That is one of the reasons why I am committed to the teacher preparation program."

"I always think about social justice in my teaching. How do I make sure that every student in my class achieve at high levels, whether students of color or English language learners or students who have special needs? "

These faculty members are fully engaged in partnerships with schools that are focused on effectively teaching vulnerable populations. They apply differentiation strategies in her curriculum, instruction and student assessment so that every student in her class has an opportunity to learn.

A major source of these faculty commitments is their vision for the preparation of competent teachers. They strongly believe preparing teachers is not just their work but it is their profession, their commitment on social service, and their deep interest in research that drives them to prepare effective teachers who could address the needs of all students. As one of the faculty stated, she always thinks about how she can "prepare the teachers as individual learners, what that mean for them in terms of curriculum choice and instructions, and how to bring student voice into the curriculum and provide access and opportunity in the learning process."

Figure No: 6

The source of commitment in teacher preparation also comes from the faculty's understanding of diversity. They are aware that there is huge diversity in schools and in communities: racial, ethnical, cultural, economic, language, gender, ability, and access to opportunity. According to some of the faculty members:

> "Those are some of the things I think about in term of equity and equality in teaching in an educational environment."

> "We have to think about diversity of students that are sitting in front of us. And we also have our starting point with them and who they are and where they come from, their needs and their interest."

Concern about diversity plays significant role in terms of designing curriculum, lesson plans, instructions, differentiation, classroom management and applying student assessment strategies. The faculty advocate for a student-centered approach of teaching where their commitment to prepare teachers comes from their concerns about meeting the challenges of diversity. Their dedication is to prepare outstanding teachers who could teach students based on their abilities, backgrounds and interests.

The faculty members believe that they are responsible for preparing teachers who could provide learning opportunities for all students, regardless of their background or needs. The faculty members want to make sure that every student in the class has opportunity to learn and achieve at high levels of success. The faculty had the opinions that:

> "It is the moral responsibility to prepare outstanding teachers so that they can go out to schools and do the best work."

"Our responsibility is to make certain that students we are training are well trained and well committed to all range of learners."

The roots of the commitment to preparing teachers are also found in their expertise in the teacher education field. All the faculty members were trained and have been working in the profession for years. They have studied general education and have acquired sound content knowledge on math, science, social studies, language and arts, and the pedagogical skills to teach different types of learners. In addition to that, they have additional expertise and professional training in field such as special education, gender, diversity and English as a second language teacher. The faculty members claim that they have "a very good understanding of what the best practices are" and employ these practices in their teacher preparation work.

The teacher educators have very strong backgrounds in teaching and community service. Before joining to NEU as teacher educators, they have worked years as secondary school teachers, and they are still serving to school boards, community organizations, clubs and other partnership activities as volunteers. In the interviews, some of the faculty said:

"I have the experience from my life and I brought that in my job."

"In terms of my work, I think this is not just my work of preparing secondary school teachers but also my research and also my service, all three aspects of the work that I pursue here at NEU."

In addition to teaching, the faculty members are constantly engaged in research and service learning opportunities so that they could find innovative way of preparing teachers.

4.1.2 What are their Goals for Education?

Another theme emerged from the interview was that they have dreams about their teaching, about their student teachers and about their program. They are continuously working to create equitable learning environments for their own students (teachers) and want to prepare them to do the same for kids in the school. The faculty members strongly advocate that all the learners in the class have opportunity to learn. A faculty member said:

> "We have a good framework now than we did before; we are philosophically oriented towards supporting all students."

The faculty members visualize their classroom with diverse group of learners, with a goal of empowering their students, hearing their voices so that every student in the class is valued, respected and included in the learning process. They report that they work to make sure that all students' voices, including the minorities, are being heard and their cultures, beliefs, traditions are valued in the curriculum. One of the faculty members stressed that she would like to see more "culturally relevant pedagogy in the curriculum and instruction." Her goal is to advocate for meaningful conversations around race and gender and to address issues of bullying and student aggression.

Figure No: 7

The faculty members have dreams of preparing highly competent future teachers who have strong professional skills and knowledge to create effective learning environment so that all of their students are engaged in the learning process and become successful. Some of the faculty members offered following perspectives:

> "I really want our student [teachers] to be the best, competent and professional in their teaching subject."
>
> "The goal is to make sure that all of the students are engaged in the leaning process, not most of the students, not some students, but all of the students, so that nobody is left behind."
>
> "I want to see every child has experience of becoming excited about the world that we live in and has the opportunity to develop the skills needed to deal with the environment."

The faculty want to make sure that the future teachers are be able to deal with inequality, injustice and are vigilant about certain student populations who are often

disenfranchised because of their race, background, ability, language, culture or sexual orientation. Most of the faculty shared the goal of finding student-teaching placements where the student-teachers can engage diverse populations and "practice" what the faculty members have sought to teach them.

The faculty have also vision of preparing competent team of professionals who could continuously work with diverse group of learners, reinforce inclusion and promote "Best Practices" of teaching in their classrooms.

In addition to the goal for education in relation to preparing teachers, the faculty have professional goals for education of their own. The faculty want to grow continuously in their professional career, especially in incorporating technology in teaching, differentiating instructions, applying verities of assessment tools to promote student learning, following constructivist approach of teaching, and conducting action research which could contribute in student learning and teacher preparation profession. The faculty have vision of working together with schools, communities and parents, integrating their efforts with other faculties, departments, teacher preparation institutions and government organizations. They want to expand and strengthen their program with additional endorsement of special education and ELL program in their department.

4.1.3 What is their Sense of Professional Efficacy?

Another theme emerged from the faculty interview was their feelings of professional effectiveness. Based on the discussions with the faculty, I found that the faculty had a very high level of confidence in their ability to educate secondary school teachers needed for the twenty first century. The faculty felt they are experienced to

work with diverse population of students and capable of providing meaningful instructions and guidance to their student-teachers based on State and NCATE standards. Several faculty members offered their opinion as follows:

> "We have expanded our ability to provide more meaningful instructions for all students."
>
> "Our team deals the above issues together as a team and work together beyond what I do personally."
>
> "I would argue that we are doing pretty well."
>
> "I am very aware of all those pieces as I prepare teachers and I want them [student-teachers] to have that awareness as well."
>
> "I work with bunch of whole smart people and they know what they are doing."

The faculty felt they are a very strong team of professional educators who have been working in all aspects at the institution for a long period of time. They believe that they have a high degree of collaboration and cooperation among the team members. They expressed they handle the issues of biases and privileges, social injustice, discrimination, poverty, inclusion and issues of race collectively in their teaching. And they transfer the same skills to their student teachers. Some faculty pointed to the fact that the secondary education program has been honored recently by two awards for their contributions in preparing quality teachers. The faculty members asserted competence in the realm of multicultural curriculum and inclusion education. They had confident that the student-teachers are well prepared to implement the "Best Practices" of teaching.

Figure: 8

Perceptions on Sense of Efficacy

The faculty members see themselves are highly capable of doing their job. They believe that their work of preparing teachers will make a difference in the academic performance of those children whom their graduates will serve in the schools. They expressed they had received a lot of positive feedback from their students. Several faculty participants proudly claimed:

"I love my job. I think I am very good at it."

"I feel very positive about my own efficacy and it keeps me going every day."

4.1.4 What do their Views of a Good Teacher Look Like?

Another theme emerged from the faculty interview was their views of what a good teacher looks like who could effectively teach to all students, including the low achieving students, who may come from low income families and /or students from black or ethnic minority groups. During the interview, I had presented a list of "Best Practices"

of teaching to the faculty and asked them for their reactions. The list of "Best Practices" on teaching was collected from the literature review. All the faculty members strongly agree on the list of "Best Practices" of teaching presented to them and offered additional competences that a good teacher should have so that s/he able to address the needs of all students, including the low achievers and improve their academic performances. The outcome of the faculty's perception of a good teacher is presented on the following Table:

Table 4: Views about a Good Teacher

A Good Teacher should be able to:

- Differentiate instructional techniques and strategies to effectively teach students with diverse learning needs
- Select and adapt curriculum materials to be responsive to different learning styles
- Acquire skills, understanding, and attitudes to deal with issues of prejudice, discrimination and stereotyping that emerge in classroom settings
- Examine how their biases and privileges related to race, class, and gender affect their interaction with students
- Understand of how factors related to social class, race, gender and ethnicity might affect to students' performance in school
- Provide learning opportunities that address the needs of students with disabilities
- Offer learning opportunities that address the needs of students with limited English proficiency
- Integrate technology to address the needs of students with different learning styles
- Have cultural understanding of students, families and communities, and develop a classroom climate that values diversity and different cultures
- Have knowledge of variety of assessment techniques and employ the techniques to meet the needs of diverse learners for appropriate outcomes.
- Communicate and collaborate with parents/ families and extract the resources available and utilize in the teaching and learning process
- Have knowledge of bi-lingual education and be able to teach social justice
- Have understanding of adulthood and physical / sexual development
- Have knowledge of problem base and project based approach of teaching
- Apply student centered learning approach of teaching
- Understand what students are constructing as a learner and build further
- Adapt universal design of teaching/learning approaches
- Aware of national policies relating to education

In addition to the list of competencies presented to them, the faculty stressed that a good teacher must be able to understand the community where school is operating. Several faculty members offered the following perspectives:

"Schools don't exist in a vacuum, there's that surrounding community and understanding of that community is an important piece of being an effective teacher."

"We are the part of a global community, and we are looking for international collaboration and coordination. So it is natural that we need to have a global perspective in our education system."

"When I talk about problem-based and project-based teaching I am really thinking about how that applies to the bigger problem or dilemma that we are dealing with right now in this world or how we can deal with that in the future."

"Teaching is not implementing a curriculum but it is to understand what their students are constructing."

"Kids should be exposed really good information about sexual maturation and sexual practices so they can be armed and informed, and make good decisions but that is not happening."

A good teacher must be able to collaborate, communicate, and be able to work with students, families, community members, staff and colleagues. This may help to build great networks among different stakeholders and explore the resources needed for effective teaching. At the same time, teachers should be able to understand the cultures, traditions, values of their students and their families. Similarly, faculty have suggested that a teacher should also have bi-lingual education and cultural competency skills.

The faculty stated that a good teacher should have knowledge about problem-based and project-based teaching and learning techniques. The teacher should be able to connect the subject matter with the society, and should be able to see what would be the

implication of that issue in the society. The faculty advocated that a teacher should adapt student-centered approach of teaching where learners are able to connect the subject to conditions outside their classroom, are fully engaged in the learning process, are excited about what they are learning because the learning should be meaningful to them.

A good teacher should understand how learning happens. S/he should be able to understand what the student is processing and how to connect the materials to the learners. So it is very important for a teacher to learn how students understand the materials, what level of knowledge they have and how can the teacher build the knowledge from there. The faculty stressed that a good teacher should be able to adapt UDL (Universal Design of Leaning) approach of teaching and learning method where a teacher presents materials in multiple ways to the class so that different types of learners are able to understand the information. The teacher asks students what happened and what they understood about the information and explains further if needed. Students are fully engaged in the learning process, and it becomes difficult to stop them. The teacher encourages the students to express their learning multiple ways to ensure everyone has learned. Thus the UDL focus is on "student understanding" as one of the faculty said.

The faculty have the opinion that teachers should have knowledge of variety of assessment techniques and are able to effectively utilize these techniques that focuses on students collaboration, self-reflection and their own learning. At the same time, a teacher should have a good understanding of social justice so that s/he will recognize people learn in different ways and that it is important for the teacher to adapt different teaching and assessment techniques so that all students have high academic performance. Similarly, a teacher should be aware about gender, physical and sexual development of

human being. It is the important information especially for the high school-age students. Lastly, the faculty viewed that a good teacher should be aware about national policies about education and other critical issues such as discrimination, gender, etc. so that s/he becomes responsible to work within those policies.

Research Question 2: The second research question was designed to learn how the NEU faculty members describe their success in introducing the specific "Best Practices" for classroom teaching into their professional teacher preparation work. Further, I was interested to find out what they feel that they do well as professionals and where they feel need to improve or change in implementing "Best Practices" of teaching. Based on the analysis of the coded data the major themes that emerged from the faculty interviews are presented below.

4.2.1 How they Assess their Success Teaching about "Best Practices"?

During the interview, I had presented a list of "Best Practices" of teaching to the faculty and asked them how they describe their success in introducing "Best Practices" of teaching. The list of "Best Practices" on teaching was created from my literature review. All the faculty members asserted that the "Best Practices" of teaching are embedded in their curriculum, pedagogy, and clinical practice, and they strive to ensure that these competencies are acquired by their student-teachers. One of the faculty said,

> "We have a very good understanding of what the 'Best Practices' are and how we are rolling on. We share our learning and learn from others' experiences."

Here are some of the specific competency areas in which the faculty members feel they are successful in introducing "Best Practices" in to their work.

Differentiation: All faculty members responded that they guide their student-teachers to differentiate instructional techniques and strategies so that they can teach students with diverse needs. They note that they have designed the secondary preparation sequence in such a way that student-teachers are aware about different learning styles from first year of their program, and in succeeding years, are taught to differentiate instructions based on individual needs to ensure all students have opportunities to learn. One of the faculty responded:

> "Students come with different needs, interest and abilities then we need to have curriculum that responds to that. So the notion of differentiation by readiness, by abilities and by interest comes to play here."

The faculty members at NEU not only teach theories about differentiation techniques but also ask their student-teachers to observe the different teaching methods their mentor teachers use and see how effective they are in the class. Most faculty members noted that the student-teachers are also encouraged to apply these differentiation skills in their practice teaching and seek constructive feedback from their mentors and supervisor on a regular basis.

Understanding critical issues: Faculty members noted that they prepare their student-teachers to address critical issues in education. In particular, the faculty believe they devote substantial time to effectively engaging their students in examining issues related to prejudice, discrimination, stereotyping, race, poverty, gender, social class, ethnicity and examining their own biases and privileges relating to the subjects. During

the interviews several faculty noted that an important part of the preparation program is the requirement that all the student-teachers take foundation courses Race and Racism (EDFS 1) and School and Society (EDFS 2) in their first year to understand these critical concepts. The faculty then build on the concepts presented in those courses during the remaining of the preparation program. Some of the faculty members asserted that:

> "A lot of our students in teacher preparation program tend to come from privileged backgrounds. So in the earlier program in our race and racism class, our students think about their own privileges and actions."
>
> "It really getting them to think about to make that connection between the earlier awareness that they develop and then, how do they then actualize that into classroom setting."

According to several of the faculty members interviewed, their teacher preparation program has service learning component that is woven into the partnership program at local community centers. When the student-teachers work with local children and their parents at the community centers, the faculty encourage the student-teachers to be mindful about their own privileges associated with their upbringing and think about the race, ethnicity, poverty, social class, gender differences and inequalities that exists in the society and how these factors affect student achievement.

When the student-teachers are placed in their clinical practice, they observe how their mentor teachers address the issues relating to the dominant culture and white privilege, as well as race and poverty in the classroom settings. Once the student-teaches return to the university, the faculty reported that they ask them to reflect on their

experiences. The faculty said that they have been successful in helping these future teachers to understand better the biases that they bring into the class setting.

Furthermore, the faculty members reported that they have been successful encouraging the student-teachers to look at stereotyping situations in their own classes or their own town or community, talk about the differences from different perspectives, and to explore ways in which situations might be improved. The faculty member reported assigning students to walk through the part of the community to help student-teachers to understand better the socio-economic, racial, and ethnic characteristics of the town.

Teaching Students with disabilities: All of the faculty members agree that it is very important to prepare teachers so that they can provide learning opportunities to the students with disabilities. Because of this reason NEU has successfully offered specific courses on disabilities and faculty integrate the relevant concepts in their teaching and clinical practice. The courses on disability (EDSP 005, EDSC 209 and EDSC 230) particularly focus on state and federal laws and provide relevant knowledge through literature review. Several faculty members stated:

> "Our students take courses that prime them to be sensitive to the issue of teaching students with disabilities."
>
> "I work with teachers to make their curriculum suitable to different types of learners so that they can participate in their every aspects of learning."

In their teaching, the faculty members constantly look for ways, that they can accommodate their students with disabilities. One of the faculty member is part of a grant funded project on disabilities which helps other faculty and student-teachers to become effective teaching students with disabilities. This faculty member expressed satisfaction

with the outcome of this effort. He further reported teaching strategies are designed based on how brain works and how learning happens with students with disabilities.

Teaching English language learners: The faculty report that preparing teachers who can support students with limited English proficiency (ELL) is a top priority at NEU. They give special attention "to integrate competencies about work around working with English language learners" in all their classes. Some of the faculty members expressed the following:

> "I help my students how to be effective teachers for those English is second Language."
>
> "They [ELL parents] have knowledge of their children that a teacher is not going to have. So valuing that knowledge that parents bring to that relationship is important."

The faculty members teach student-teachers how to assess different levels of language acquisition when students come to a new country and how to support them in regular classes applying specific instructional strategies that can relate to each content area. The faculty members report that they go into considerable detail of "what is different working with English language learners that teachers need to be aware in order to modify their instructions effectively."

The ELL competency is linked with NEU's partnership projects where the student-teachers go to the community centers and local schools and teach to the English language learners, particularly those children from the refugee communities. Some of the faculty interviewed report that their students are able to understand the children better and gain real experiences how to work and support the ELL students. When the student-

teachers come back to their classes at NEU, faculty members debrief them in class, so to speak, regarding their interactions and learnings from their cross-cultural field experiences.

The secondary education faculty report that they are constantly engaged in research to learn how to work with ELL students, their parents and communities, and transfer that knowledge to the student-teachers, other faculties and schools with which NEU is partnering. The faculty really stressed the importance of communication with ELL parents. Therefore, the faculty emphasized "teachers must give efforts to engage with parents and see parents as partners rather than adversaries."

Diversity, culture and traditions: Faculty at NEU who participated in this study have responded that they feel good about their efforts to help their student-teachers in understanding diversity, culture, traditions and how these factors can be included into their curriculum and instructions. Some of faculty stated:

> "I am very aware of all those pieces as I prepare teachers and I want them to have that awareness as well."
>
> "So that everyone is valued and everyone sees their culture as being valued within that classroom community."
>
> "The current work with community through the partnership for change project is an incredible opportunity to see that action instead of reading a book."
>
> "I help them [student-teachers] to see from other cultural lenses."

The faculty noted the importance of understanding these concepts and explained that student-teachers should have knowledge that their students "come from variety of different backgrounds, race, ethnicity, culture, class and sexual orientation, and they are

the mirror of their society." Some NEU faculty members specially responded that they teach these prospective teachers how to explore the backgrounds, interests, and needs, of their students, and, prepare inclusive curriculum that considers the diversity of their students and their communities.

In summary, most of the participants interviewed agree that student-teachers at NEU are not only prepared on the theoretical understanding of diversity, inclusion and culture, but they are trained to design culturally relevant pedagogy and test their skills in the real life situation. First, they examine how their mentor teachers apply culturally relevant pedagogy in the class. The student-teachers then, discuss with their faculty how the mentors could have worked differently that would make the instructions more culturally relevant for their students. They gain deeper level understanding relating to these ideas from different case studies and literature review on the subject, and explore the real life situation that they might need to deal with on a daily basis at schools.

The service learning opportunity and clinical experiences at the secondary education program enriches student-teachers on pragmatic knowledge about diversity, culture, traditions, and how such concepts can be implemented in their teaching. They have direct opportunity to interact and work with diverse communities, including the refugee and immigrant population in New England, which has contributed NEU's ability to provide better training to the future teachers. This is how the student-teachers learn how to create inclusive environments where all of their students have learning opportunity in the class.

In general, the faculty interviewed seemed pleased that these future teachers are frequently challenged to show how they can value diversity and promote cultural awareness, even when they are at schools which are predominantly white.

Employing technology: How to utilize technology effectively in teaching process is a big push for all the faculty members in their teacher preparation program. Faculty who participated in the interview believe that technology can support the instruction of all learners, whether they are students with special needs or ELL learners. Some of the faculty members shared the following opinions:

> "Technology opens a range of opportunities. It can support the student-centered learning approach so that our students can enhance their knowledge in a meaningful ways."
>
> "I utilize variety of technology in my teaching and let my students to explore how they can apply in their teaching."
>
> "We are looking how technology can be a way of equalizer and then how if it is done correctly then it may minimize the achievement gaps."

The faculty recognize that a teacher must be good in communication, collaboration and creativeness. These skills can be greatly enhanced through effective use of technology. That is why the faculty members want their student-teachers to graduate with high tech teaching skills so that they can be innovative, creative and be able to develop projects to foster problem solving, critical thinking and at the end academic success of all students. The faculty said they are strong advocates for integrating technology in practice-teaching to promote student learning.

The faculty mentioned that they encourage their student-teachers to employ technology that facilitates student voice in their learning. The faculty and student-teachers experiment using different technologies such, as I-Pad, blogs, discussion boards, smart-boards, search engines or other applications including games, interactive quiz, digital recordings etc. that enables students to think, reflect, write and express their opinions in their own time and space. They explore how it is different for some learners specially those who may not be able to participate in the whole class discussions. The faculty and student-teachers investigate how technology can support special need or ELL students who are struggling in reading and writing.

When student-teachers go for field placements, their NEU professors reports that they encourage them to look what is happening with technology in their mentors' class: how it supports different types of learners and how it is effectively utilized. The faculty encourage the student-teachers to work on technology projects that can support learners of different needs that they can incorporate the skills in their student-teaching, thereby improve the academic performance of all students.

Assessment techniques: Faculty members have strongly advocated that the teachers should be able to employ variety of assessment techniques to meet the needs of diverse learners. Such assessments criteria can hold students to higher performance standards. Some of the faculty expressed the following views:

> "Teachers should be able to adapt student centered assessment techniques to enhance learning."
>
> "Assessments should not be biased and should be able to provide true picture what students are able to do and what they are not able to do."

The faculty members report that they have integrated the awareness about assessment techniques in their courses at all levels so that their student-teachers know it is mandatory to have certain accommodations for students in their learning process. The faculty indicate that they have introduced different kinds of assessment techniques to the student-teachers, taught how they can apply in the class, and helped them to explore how the assessment selected can affect students' performance. Several faculty members noted they were promoting more meaningful and balanced assessment techniques that can be compatible with common core standards and be able to educate student-teachers to use the test results effectively.

In addition to providing theoretical understanding through reading, class discussions and field experience, the faculty noted that they also invite mentors, teachers or previous students into their classes and hear their experiences. The student-teachers learn what is happening in real life, how veteran teachers apply innovative assessment methods, and what works and what does not. The faculty seemed pleased that the student-teachers, when in their clinical practice phase, experiment with ways they can structure instructional assessment for different groups of students in order to fairly assess their students based on their abilities and needs.

4.2.2 What do the Faculty think they and the Program do Well?

The faculty members think they and their program are doing very well in many aspects of their teacher preparing work. They responded that they feel highly confident in many of the competency areas of educating "Best practices" of teaching to their student-teachers. The faculty believed they are individuals with specific knowledge and skills in

various fields. They have expertise in methods teaching, differentiate instructions, teaching limited English learners, and dealing with issues of poverty, race, prejudice and discriminations. They are aware about gender & sexual orientation, cultural understanding, diversity, adapting technology in teaching and designing curriculum that gives all individuals equal opportunity to learn. They have knowledge of variety of assessment techniques and able to apply the techniques for appropriate outcomes. In addition to that, the teacher educators noted that they have expertise on problem based, project-based approach of teaching, and are aware about common core standards, bi-lingual education and national policies about education in general. As discussed below, some of the areas that the faculty strongly felt they are doing well are in clinical practice, service learning, partnership, integration/collaboration, research and dissemination, and creating learning environments for their student-teachers.

Clinical Practice: Faculty members responded that they have a strong clinical practice component in their teacher preparation program. Several faculty members offered the following perspectives:

> "Our program starts with a junior level practicum and then followed by senor practicum or clinical experience. Freshmen have very limited clinical experience but juniors and seniors have broader level of experience."
>
> "We teach a great deal of how to be an effective teacher, how to design curriculum, how to teach and support students who come from diverse backgrounds. We give them practical experience and system knowledge. We put them in the real world and we prepare them for that."

"We have expanded our ability to provide more meaningful instructions for all students [teachers]."

The clinical practice is not only linked with classroom teaching at the local public schools but it is also connected with other partnership arrangements with community organizations and school districts. Recently, some faculty members mentioned that they have even expanded their clinical experience in urban settings outside New England as a pilot project so that students-teachers gain teaching experience in different geographical locations.

Through their clinical practice, the faculty believe that the student-teachers gain deep content knowledge, and theoretical and practical skills on teaching pedagogy, lesson planning, differentiation, and classroom management. They feel that the student-teachers learn to work with diverse groups of students coming from different race, culture, language upbringing, ethnicity, ability and socio-economic backgrounds, and are able to understand classroom realities.

Service learning: The faculty members responded that service learning component is one of their program strength. Some of the faculty members offered following opinions:

"We do provide that opportunity for our students [teachers] to interact with diverse populations of learners at the community centers."

"The community centers that we work with, they serve all kinds of individuals within the community. They tend to be low socio-economic status, who may be refugees, but there are also families that are living in poverty that are always lived there as American citizens".

"I take off my professor hat and put my community hat there while supporting the children."

Each of the student-teachers has a service learning component in almost every course associated with different organizations such as schools, child clubs, community centers etc. So they need go out and work with students at the community centers or local clubs. These could be ELL students or students from diverse economically disadvantaged groups or students from different cultural, ethnic or racial backgrounds. At the community centers, the NEU faculty note, the student-teachers understand better about the children, learn how to work with them and able to design curriculum in meaningful ways to support and improve academic performance of all children. The student-teachers not only see what is happening in the real world, but they can also compare these experiences with their theoretical, book-based understandings and be better prepared.

The faculty expressed that the service learning component helps the student-teachers to understand how complex their work is and help to prepares them to serve the whole range of learners. Service learning assists to understand about children, their needs and their community where school exists. The students-teachers "move beyond the walls of the classroom settings" and examine the local resources, economy and social structure of the community together with the local people.

In addition to the student-teachers, the faculty members also participate in the service learning activities at NEU's teacher preparation program. Some of the faculty noted that they offer volunteer services to the local clubs and help children in various ways, along with their teaching, student-supervision and research work at the university.

Other faculty members offer their community service either at the local school as board members or advisors in various community activities. During the interview the faculty responded that their goal of participation in service learning is to understand the youth, explore opportunities, boundaries and barriers of the community, and be able to bring that knowledge into their teacher preparation work so that they can teach the future teacher more effectively. It is not only the faculty who think that the service learning component at NEU is very successful, but the program has received an award for "Best Practices" by The International Center for Service Learning in Teacher Education, Duke University, NC.

Partnership: The faculty members expressed that the secondary education program and its faculty are directly involved in various partnership projects with local schools, school districts and with community organizations which makes the program even stronger. Most of the projects are grant funded, initiated by the faculty or initiated by local school or school districts. For example, the partnership for change project, funded by Nellie Mae Foundation and the Tarrant Fund for Innovation, was initiated by the two school districts. The faculty are involved in advising and managing the projects together with other stakeholders, whereas student-teachers participate as active learners, engaging in team meetings and experiencing first hand how school reform takes place. Some of the faculty members have following opinions about the subject:

> "The current work with the partnership for change project is an incredible opportunity for our students to see how school works."
>
> "This [effort] is aligned with the idea of human opportunity and capability."

> "The community service enables student-teachers develop understanding of what's happening in the community, what's happening in the family, what's happening in the minds and what's happening in their bodies."

They work with other students, their teachers, administrators, parents, community-members and faculty from other universities. They work together in various school reform committees and get chance to broaden their understanding about teaching, classroom-environment, school, community, parents, students and their needs. The faculty noted they also get opportunity to engage in conversation with other community partners, teacher educators from other colleges, share experiences, and explore opportunities to strengthen the teacher preparation program.

The faculty report that partnership works in such a way that the faculty and student-teachers who are involved at the NEU are focused engaged in conversations about schools, effective teaching and creating student-centered learning environments to all students, especially students from vulnerable population. This allows student-teachers to see what happens in the real world beyond what they read in the book. They learn not only how to work with students but also learn how to incorporate parents/families into the learning process. These sorts of experiences, according to the faculty, help student-teachers to understand more deeply that "not all students have same learning opportunities" and recognize the importance of offering "fair and equitable learning opportunities" to all students. The partnership work of NEU's secondary teacher preparation is also awarded as "Best Practices". The award recognizes the engagement and collaboration works between NEU's secondary education program and the community partners.

Collaboration: The faculty responded that they work together as a team and collaborate well with each other. During the interview some of the faculty expressed the following perspectives:

> "We have a high degree of programmatic collaboration and cooperation. That's able us to take pause and have programmatically more cohesion and coherence specially dealing with issues of diversity, issues of inclusion and issues of race."
>
> "Our program deals with the above issues together as a team and, works together beyond what I do personally."

The faculty stressed that they review their courses on a regular basis within their content areas. Most of the time, a faculty member teaches a specific course in his/her expertise areas. Faculty believe they have been fairly successful at integrating their subject across cross-content areas such as science, social studies, statistics and teach the subject matter from critical thinking perspective. In this way, they believe, when their student-teachers are being prepared to teach, they can examine situations from a number of different perspectives. In few cases, the interviewees noted they also work with faculty beyond their specific program and incorporate the concepts of race and racism, issues of poverty, prejudice and discrimination into their program.

Research and dissemination: The faculty responded that they are constantly involved in research activities relating to "Best Practices" of teaching in addition to their regular work of educating, supervising and advising their student-teachers. Some of the faculty said:

"This is not just my work in preparing secondary school teachers, but this is also my research and also my service, all three aspects of the work that I pursue here [at NEU]."

"We have faculty in the teacher preparation program who have routinely presenting and being involved with national conferences. We are not isolated only in New England but also looking what is happening in other places."

Some of their research projects are linked with their partnership works with local schools and community organizations where they investigate what works and what does not. The faculty claim that they bring insights from their research to help their student-teachers learn to teach all students effectively. The faculty also participated in various national and international research conferences, professional associations and networks to disseminate their research findings and gain new insights from others.

The faculty felt confident they can prepare their student-teachers effectively because they are aware of what is happening in teacher education, nationally and internationally, specially with respect to dealing with discriminations, prejudice, biases, poverty, race, language, disabilities, diversity, culture, and adapting technology in teaching.

Creating learning environment: The research participants responded that they are highly confident about their work in creating effective learning environment. This was possible through their partnership, service learning, exchange visits, classroom discussions and student-teaching. The faculty offer opportunities for their student-teachers to learn, and work with diverse group populations from different race, ethnicity,

culture, traditions and socio-economic backgrounds. During the interview some of the faculty responded:

> "This is because of the student-teachers directly participating with community and schools,"
>
> "We have created a non-threatening environment. It may be due to NEU as a liberal learning place."
>
> "We are really focusing on theory into practice and helping students [student-teachers] to understand why they are doing and what they are doing."

According to the faculty the student-teachers have not only been educated on how to teach but they have also learned how to work with students, their parents and community members. The faculty responded that they have created environments where every student-teacher feels comfortable to share his/ her thoughts and ideas.

The faculty reported that the student-teachers work together as a team, and gain both theoretical and practical understanding so that they become effective teachers. The faculty consider this as a "cohort model so that everybody in the team work together and learn together." The faculty explained they do cover all aspects of teaching at the same time there is significant effort on gaining practical experience. Despite heavy course requirements and highly clinical focused program, the overwhelming majority of the student-teachers complete their program in four years. The faculty members believe that this is result of the team work both by the teacher educators and the student-teachers.

4.2.3 What areas do the Faculty think need to Improve?

Although the faculty members believe they are doing very well in many of the competency areas of teaching "Best Practices" to their student-teachers, they would still like to improve further in some of the areas. As one of the faculty noted:

> "I think we are making good efforts but we could always do more. We could do more probably in everything."

Some of the competency areas where the faculty seek to improve are student assessment techniques, special education, issues of disabilities, inclusion, incorporation of technology, differentiation strategies, community engagement, integration and accommodating ELL students in the learning process.

Student assessment: The faculty participants responded they would like to work more on assessment strategies so that they are more effective helping their student-teachers in terms of assessing where the learners are in their skills and how the assessment could create a self-awareness of their progress. Some of the faculty responded as follows:

> "I think we made some good progress on student assessment especially how to integrate awareness about assessment, how to use it, and how assessment impacts students but there is definitely areas where we could do more work on it."

> "They are still not getting on it [student assessment]. They are still reverting to sort of stable of quizzes and exams, so somewhere along the line we are not having the kind of conversations about the assessment that may be we need to."

"I try and I am pretty good in small classes, but I am not very good for large classes."

"I believe that teachers should be able to adapt student-centered assessment techniques"

The faculty felt that they definitely need to work on this subject. They discuss this matter with their student-teachers, but in the end, they think they are not successful. Faculty members have also expressed interest to learn more about assessment techniques, especially for large classes. Some of the faculty interviewed think they are making a good progress but they still would like to do more work. The faculty think that the assessment should provide feedback to the learners. At the same time, the assessed should be able to feel ownership over the assessment.

Special education: The faculty responded that they would like to do more work on special education. They have expressed that NEU may have been forefront on this regard originally, but they are not sure any more. As some of the faculty stated:

"I think this is the result of the community becoming more diverse and teachers having challenges to manage that."

"We have not done as good job with looking at how to support students with disabilities."

"I think for me personally, I don't know much about supporting students with disabilities. I think that if I knew more, I could do more."

The faculty have stressed that it is important for them to prepare student-teachers as per the new challenges. They need to have skills and knowledge to

accommodate students with special needs in the regular classroom environment and create an IEP (individual educational plan) designed for each student.

Several faculty expressed an interest in doing more work on how to deal the issues of individual with disabilities. The faculty responded they have done some of the work in this field, but they are not happy with the progress they have made so far. The faculty have stressed that students with disabilities have very specific needs, so how to meet the needs of such students and the needs of all other students in a class at the same time is a challenge.

The faculty interviewed have explained that they would like to do more work on inclusion. They felt they are not doing adequate work as needed. These NEU faculty members believe that a classroom setting should be inclusive regardless of the students' sexual orientation, race, culture and ethnicity, status, abilities, and their economic backgrounds. When a teacher is not able to create a welcoming environment, then the students may feel stressed and may not be able to focus in the class.

Technology: The faculty participants have expressed that they would like to work more on adapting technology in the teaching process. Some of the faculty said:

> "I need to improve my use of technology. I need to figure out how to get the materials in videos and use that effectively."
>
> "When I think about what my strengths are, what I really need to work on, technology would be one of those pieces. Right now, I am actually thinking myself that I want to take some courses and really get my professional development."

The faculty members feel they are "getting better" but there are still areas to be advanced. Although they are giving high importance to adapting technology in teaching and learning process, several acknowledged that they are just "trying to keep up with that." The faculty would also like to integrate technology more effectively in their teacher preparation process so that it would be meaningful and supportive to the students with different learning styles. The faculty members are eager to expand to use technology more effectively in their teaching and, at the same time, transfer that skill to their student-teachers.

Differentiation strategies: The faculty participants felt that they apply various differentiation strategies in their teaching process. However, when it comes to very specific needs of particular group of students in a classroom setting, then it sometimes becomes a challenge. One of the faculty said:

> "We talk a lot about differentiation in instructions but we may need to work more."

The faculty members are looking at differentiation from a boarder perspective, not only for instruction, but also differentiation for curriculum and differentiation for student assessment. So they feel that they would like to develop more differentiation strategies for themselves and so that they can educate their student-teachers. The faculty members believe this way their student-teachers learn to differentiate curriculum, teaching and assessment strategies, and offer appropriate supports for each student so that every student has equal opportunities for success.

Accommodating ELL students: The faculty believe they need to become more competent at preparing their teachers to accommodate ELL students in their teaching. Some of the faculty revealed their opinion as follows:

> "I have limited skills in terms of fulfilling the needs of students with limited English, so I definitely need to work on that."
>
> "There is lots of curriculum to fit into one pie and you have limited amount of space to fit to do that."

During the interview the faculty complained about too much to do within the program. They felt they did not have adequate resources available to them to improve their teaching in this area.

Overall, these faculty members are proud of their accomplishments and capabilities in preparing secondary teachers to work with low achieving students. Nevertheless, they are aware of their professional shortcomings.

Research Question 3: The third research question was designed to learn what do the NEU teacher-educators believe they and their secondary education program must do to improve the preparation of their student-teachers in "Best Practices" of teaching, with specific reference to effectively teaching low achieving students.

4.3.1 What must be done to Improve in "Best Practices" of Teaching?

The faculty responded that they were already doing a good job preparing their student-teachers in implementing "Best Practices" of teaching so that they could teach effectively to the low achieving students. One of the faculty asserted:

"We have been doing a great job in our teacher preparation process compared to other institutions around but there is still scope to do more work in this field."

The following themes identifying areas for improvement emerged from the faculty interviews that I concluded.

Professional development and growth: The research participants responded that they need to do more work on professional development and growth for themselves as well as promote the same culture to their student-teachers so that they could continue to improve "Best Practices" of teaching. During the interview some of the faculty responded their perspective as follows:

"All of us are working on our own professional development, but I need to continue to learn to do the best I can do. It's hard to figure out how to do that."

"Japan schools offer ten per cent of their time for professional development and there is a similar practice in Finland."

"We need an ongoing professional development commitment in a meaningful way and find collaborative learning opportunities."

The faculty members have realized how important it is for them to work in their professional development though they have been continuously educating teachers for several years. They still think that it is important for them to focus on their professional development in some of the areas such as technology, differentiation, assessment techniques, where they felt they would like to do more work and support their student-teacher better. Some of the faculty expressed they were not able to give much priority to their professional development as a team as compared to other countries.

Research and innovation: The research participants responded that they need to do more research work on "Best Practices" of teaching and help their student-teachers to learn new skills so that they can teach low achieving students effectively. These faculty described that it is very important to understand what works and what does not and how teaching can be effective for low achieving students. In particular, they are interested in research related to service learning, diversity, student achievement, social justice, and technology. In addition to that, as one of the faculty said:

> "We need to help our students [teachers] to understand research better. I think we are making some progress but we need to work more as a department, as a team."

In some cases it is hard for student-teachers to understand the materials so the faculty felt they need to help them how to comprehend and interpret the research findings for their teaching and learning environment.

Enhance clinical practice opportunities: The faculty responded that they need to do more work to further improve their students' clinical practice experiences so that they have the opportunities to learn the essential competences to teach low achieving students effectively. Some of the faculty said:

> "We need to give them more opportunities how they can work, how they can think, and how they can implement the ideas they have learned."
>
> "We talk about it but we always find ourselves being too busy or scheduling is too difficult. We are mostly dealing with crises so we need to find ways of helping our students [teachers] in their field work."

The faculty also felt that they need to provide better support to their students in their field experiences. They need to have qualified mentors to support their teaching process and experienced faculty to supervise and advise them.

Program review and monitoring: Three of the faculty participants have expressed that they need to continuously review their teacher preparation work to make sure that they are accurately preparing competent teachers. The faculty need to review their courses regularly to ensure that the student-teachers are acquiring the knowledge, professional skills, attitudes, and values at NEU to address the needs of low achieving students. One of the faculty noted:

> "We talk about the students [teachers] and sometimes we talk about the curriculum but we do not talk about our own process of teaching."

The faculty felt that they need to talk with their colleagues more often and with their chair about their teacher preparation work, share their information what they are doing and where they need to improve.

Curriculum and instructions: The faculty have responded that they need to do more work on integrating the needs of different types of learners into their curriculum and instructions so that their student-teachers are prepared with all the competencies to address the needs of low achieving students. The faculty felt they definitely have made good progress on preparing inclusive curriculum and address the needs of students from different backgrounds. However, they are envisioning more work on the "thinking of a transformative model of curriculum reform." Similarly they realized that they need to do better job in improving the curriculum, especially incorporating technology focusing to the vulnerable population of students. As one of the faculty summed things up:

"The curriculum needs to be updated as per the need and changed teaching environment."

Collaboration: The participants felt they need to do more work to improve collaboration and information sharing and also help to transfer this skill to their student-teachers. The faculty stressed that in addition to teaching effectively, student-teachers should know how to collaborate with their students, other teachers, administration, families, communities and local organizations, and share the information respecting each other. Some of the teacher collaboration skills identified include coaching, mentoring, consultation and teaming. The faculty presented their perspectives on the need of collaboration with community as follows:

"We [teacher-educators] probably are not able to do adequate collaborations with local organizations so that we could develop link for our students [teachers] with the community and prepare them as competent teachers."

"They [student-teachers] need to know how to make great relationships with the resources that are available to the school and how to use them."

"They [student-teachers] need to talk to the parents, the community about what is effective learnings and what does not consider as effective learnings."

Developing collaboration skills may help student-teachers to learn to motivate their students and generate supports and resources to improve the academic work of low performing students. At the same time, student-teachers should have skills to disseminate information with the concerned stakeholders about schools, developing approaches so that the concerned stakeholders know what is happening, and how they can support the

teaching and learning process. Learning how to speak with these adults needs to be given more attention in the program.

Social justice focus: The faculty participants have expressed that they need to "continue to emphasize and rethink issues of social justice" and discuss how to ensure social justice component in their teacher preparation program. One of the faculty said:

> "We have conversations about that a lot, however, we could be more explicit about that idea of what it means to have a social justice focus."

The faculty felt they need to work more on issues of discrimination, bias, prejudice and stereotyping in their teaching and transfer the knowledge to their student-teachers. They want to make sure that their student-teachers are able to understand the issues at a deeper level and able to create supportive learning opportunities especially for the low achieving students. Furthermore, the faculty expressed concern that they needed to do more to ensure their student-teachers understand how social class, race, gender affect student achievement. In particular, they need to do a better job preparing student-teachers to examine their own biases and privileges related to race, class and gender, and prepare them to deal with issues of prejudice and discrimination that may emerge in the classroom.

Co-teaching: The research participants responded that they need to focus more on teaching courses together based on their expertise on the specific content of courses rather than teaching only by themselves. The faculty acknowledged, they are already begun to practice this approach. One of the faculty elaborated:

> "Some of the content we work is particularly related to ELL and students with disabilities. I have more expertise in special education and another faculty has more expertise in ELL."

In this approach one faculty teach some parts of content areas of a course and other faculty teach other parts. The faculty argue that co-teaching has already become a practice in the department but she would like to promote this even more.

Dissemination and integration: The faculty participants have stressed that they need to put more efforts on disseminating information within faculty and within their department. They expressed their opinion that it was important for them to know what is happening, who does what, how the program sequence flows, what is working well, and what are the "Best Practices" of teaching. There should be a networking forum to share such information on a regular basis. The same culture should be promoted among their student-teachers so that the future teachers should be inspired to share their learning with their colleagues, school administration, parents and community members. One of the faculty said:

> "Teachers [student-teachers] need to talk to the parents, the community about [what they consider] effective learning and what [they] do not consider as effective learning."

Long term Partnership: The faculty participants expressed they think their teacher preparation program needs to build more long term partnership with schools and incorporate their teacher preparation activities more fully into those schools. One faculty asserted:

"It would be ideal if our preparation of future teachers was integrated into schools."

The faculty's partnership vision was not for short period, 3 or 5 years of time but for a long time. She had dreams of a "lab-school" concept, so that teacher preparation work, both "pre-service and in-service", can be sustained. According to the faculty, this would not only help to create supportive school administration for teacher preparation but also help to train and develop competent mentors and create effective clinical practice opportunities for student-teachers. This would also give an opportunity to the faculty, mentors and student-teachers to work together and learn "Best Practices" of teaching so that they can improve the academic performance of low achieving students. The faculty members were also looking to work with many more schools so that they won't have difficulties in matching their content, process and technological needs for appropriate student-teacher placement.

4.3.2 What are the Obstacles in Implementing "Best Practices" of Teaching?

As I described previously, the NEU faculty at the secondary teacher preparation program believe that overall they are doing a good job, but they can nevertheless identify program areas needing improvement. These include more research on "Best Practices" of teaching, improved clinical practice opportunities, regular review and monitoring of the program, strengthened curriculum, increased collaboration with stakeholders, more effective team teaching, better dissemination of information, more long term partnership with schools, and increased opportunities for their own professional development. Given that they have identified many areas in need of improvement, it comes as no surprise that

they can also identify some obstacles to their efforts to better prepare their student-teachers in implementing "Best Practices" of teaching so that they can effectively teach low achieving students. Based on the analysis of the data gathered, the major themes that emerged from the faculty interviews are as follows.

Time management: Seventy five per cent of the faculty participants responded they have far too many things to do so time management is always a challenge for them. They need to teach regular courses, supervise and advise their student-teachers, perform research activities, participate in different committees, attend meetings and prepare for their own upcoming tenure decision or for promotion. On the top of that, they offer volunteer service to the community organizations such as school boards, local clubs etc. they are always busy. Some of the faculty expressed their perspectives as follows:

> "I think time is a big issue. It's the same thing in any public teacher would say."
>
> "We need to cover so many courses within the given time and with the limited human resources."
>
> "I have too many things to do within the given time so there is always time pressure even though I would like to work more with my team, share resources, contribute ideas, and teach together as a team."
>
> "Time is always a factor and that's sort of what I was driving at. There is a finite amount of time that we have to do and it's always struggle to trying to get so much of it,"

The faculty really wanted to work meaningfully so that they can contribute in implementing "Best Practices" of teacher preparation. However, they have to postpone so many things such as conferences, networking meetings, research activities because of

limited time availability. Therefore it is hard for the faculty to incorporate new ideas though they feel that the new ideas, or new courses or content are needed to improve their instruction in the "Best Practices" of teaching. Most faculty teach five courses during the year and maintain an active research agenda. They also offer their weekends, holidays and break times, but they feel frustrated when this extra time is not sufficient sometimes for them in their teacher preparation work. The faculty highlighted two factors: managing their time better and having more time available.

Placement issues: The faculty members responded that there are student placement problems in implementing "Best Practices" of teaching. The NEU's teacher education program is improving the program as per state and accreditation requirements. However, it is not always possible to find schools with diverse populations for their students-teachers, based on the content and grade level they need for their field placement. So it becomes a challenge for the faculty to find placements where student-teachers can learn how to teach all students effectively, especially to the low achievers. As one of the faculty said:

> "Sometimes we have hard time to allocate our students [teachers] in terms of content and grade level we are planning to teach."

Mentor issue: The faculty participants have responded that it was not always possible to find well qualified and experienced mentor teachers to support and guide their student-teachers in their field experiment. Some of the faculty expressed their perspectives as follows:

"We do not have access to necessarily the high quality mentors that we would ideally want. We are not in a city where there are 15 high schools to choose from."

"There may not be the mentor who exhibits all the factors we want."

"We do not have control over mentors, we do not have control over schools that we partners with, and this is a big challenge."

Many times the faculty have to accept mentors whoever are available due to the limited options for selection which is a hindering factor in implementing "Best Practices" of teaching. So there is not always possible to find right mentors for student-teachers. This is also because of the geographical location of NEU situated and its large teacher preparation program. There are not many secondary schools available for student-placement in terms of number, size and diversity of student population. In addition, other teacher preparation institutions are operating in the same town as well with whom NEU is competing for placements for their student-teachers. Finally, the faculty members encounter the additional difficulty finding the necessary time to train and coordinate with the mentors. These mentors already have heavy workload in their schools, and they may not always have the strongest motivation to be mentors.

Credit limitation: Two out of six faculty participants responded that there are many competencies they would like to incorporate in their teacher preparation program so that they could successfully implement the "Best Practices" of teaching, but this was not always possible. During an interview, some of the faculty members expressed the following frustration:

"So within our program the discussion we have is how we can continue to grasp all of range of needs of students [teachers], when, they have limits of 120 total credit hours to graduate in four years of time."

"There is not enough space to fit all the contents required in the given four year course."

The faculty find many subject areas that may help their student-teaches to gain better knowledge, but they cannot add those in their program because of four years graduation time and credit hours limitation. The faculty felt that understanding about differentiation techniques, special education, social justice, diversity, assessment techniques, technology and teaching ELL students are essential competencies in teacher preparation but there is not enough space to provide deeper level of understanding of all the contents in the given four year period of time.

In summary, the purpose of this study was to learn how NEU faculty find themselves in preparing secondary school teachers with respect of implementing "Best Practices" of teaching with the goal of meeting the needs of low achieving students. The interview data revealed that the faculty members have strong commitment to preparing outstanding teachers that was rooted in their belief in social justice and equality. They have dreams about their teaching, about their student-teachers and about their program. The faculty felt highly confident in their ability to educate secondary school teachers and believe that they will make a difference in the academic performance of those children their graduates will serve in the schools.

This study also revealed that the NEU faculty members believe they are successful in introducing "Best Practices" of teaching, especially helping their student-

teachers in (1) differentiating instructions, (2) dealing with disabilities, (3) teaching ELL students, (4) understanding diversity, culture and traditions, (5) employing technology in teaching, (6) adapting different assessment techniques, and (7) preparing their student-teachers in examining issues relating to prejudice, discrimination, stereotyping, race, poverty, gender, social class and ethnicity.

Finally, this qualitative study revealed that the faculty believe that the secondary education program must do more work to improve the preparation of student-teachers in "Best Practices" of teaching, particularly in (1) enhancing professional development, (2) supporting research and innovations, (3) advancing clinical practice opportunity, (4) reviewing and monitoring the teacher preparation program, (5) improving curriculum and instructions, (6) enhancing collaboration (7) focusing on social justice, (8) promoting co-teaching, (9) disseminating information and integrating with other departments, and (10) establishing long-term partnership with schools and other community organizations.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The mission of NEU's teacher preparation program is to prepare caring teachers who are dedicated to making "a difference in the lives of children, youth, families and communities" (NEU, 2013b). These caring teachers can honor and respond to differences, use "Best Practices" for instruction and assessment, create supporting learning environments, and encourage successful learning for all students, even low achievers (NCATE, 2013). NEU strives to prepare outstanding teachers so that the teachers are competent to work with students with diverse needs. NEU affirms that the teachers are trained through reflective learning and clinical practices grounded with the principles of inclusion, multiculturalism, equity, constructivism, collaboration, human development and empowerment (NEU, 2013b).

However, the NEU faculty and other teacher educators across the country have been conducting their work in a climate of increasing criticism of our public schools and teachers' lack of success at addressing the needs of learners, especially low achievers. Teacher preparation institutions (TPIs) like NEU are criticized by those who claim new teachers have not been prepared adequately to manage the classroom realities, and there has been inadequate emphasis on raising the achievement level of all learners, particularly those from low socio economic conditions and minority ethnic and racial backgrounds (Levine, 2006; Kukla-Acevedo & Toma, 2009)

Though teachers are not the only influential factor affecting academic achievement gap, they are probably the most important one (State of Vermont, 2013). So much depends on the quality of teachers, how they are prepared, trained, and supported

so that they are able to produce high student achievement in our public schools. Therefore, teacher preparation programs can have a major impact on the student achievement (MacCallum & Ross, 2010).

There have been some reforms in teacher preparation programs (TPPs) in the recent years, partly in response to the criticisms raised. The reform of TPPs has been driven partly by identifying and promoting a body of educational practices, often described as "Best Practices" of classroom teaching, that can raise the achievement level of all students. Achieving this goal is seen as evidence of a successful teacher preparation program (Darling-Hammond, 2010).

The purpose of this qualitative research is to understand how the faculty of the NEU find themselves in preparing secondary school teachers with respect of implementing "Best Practices" of classroom teaching, with a particular focus on reaching low achievers and, closing the achievement gap. Further, this research investigates what the faculty think they and their program are doing well, what they need to improve on, and what needs to be added to their teacher preparation process. To achieve the goal of this study I reviewed the literature on the subject, designed a questionnaire, and collected primary source of data conducing semi-structured interviews with the faculty and staff who are directly associated with the teacher preparation program. I, then, transcribed, critically analyzed the rich and detail transcribed data, coded, developed themes, and presented the description of the findings in Chapter 4. In this chapter, I am presenting a brief summary of the findings, discussion of the findings in light of the relevant literature, and a conclusion that offers recommendations for program improvement and future research.

5.1 Summary of the findings

The major themes that emerge from this study are that the faculty members at the NEU's secondary teacher preparation program have a strong belief in social justice and equality, have strong commitments to preparing outstanding teachers, and believe that they have been effective. They think they have adapted the "Best Practices" of classroom teaching in their curriculum, pedagogy, and clinical practice, and they strive to ensure that these competencies are acquired by their student-teachers. The teacher educators think they are doing well in many aspects of their teacher preparation work

The faculty members bring strong commitments to preparing outstanding teachers. They have great dedications to their work because of this belief in social justice and equality, their vision of preparing competent teachers, a deep understanding of diversity, a profound feeling of responsibility, strong background and expertise in teaching and research work relating to teacher preparation.

NEU's secondary program educators have dreams about their teacher preparation work, about their student-teachers, and about their program. They have dreams of preparing highly competent future teachers who have strong professional skills and knowledge to create effective learning environment, so that all of their students are engaged in the learning process and become successful. They envision strengthening their partnership work with schools, communities and parents, and further joining their efforts with other faculties, departments, teacher preparation institutions and government organizations.

The faculty see themselves as professionally competent, with a high level of confidence in their ability to educate secondary school teachers: serious, effective, experienced and highly capable of doing their job. They feel capable of providing meaningful instructions and advice to their student-teachers based given State and NCATE standards. They have a high level of commitment to collaboration and cooperation among the team members.

The teacher educators asserted that a good teacher should be able to effectively teach to all students, including the low achieving students who may come from low income families and /or students from black or ethnic minority groups. A good teacher must be able to understand the community where school is operating and be able to collaborate, communicate and work with students, families, community members, staff and colleagues. Further, a good teacher should have a deep understanding of how learning happens and be able to present teaching materials in multiple ways so that all types of learners will understand. All these beliefs are consistent with "Best Practices" in classroom teaching.

NEU faculty have, in fact, asserted that these "Best Practices" of teaching are embedded in their curriculum, pedagogy, and clinical practice, and that they strive to ensure that these competencies are acquired by their student-teachers. The faculty said they are successful helping their student-teachers in some of the specific competency areas of "Best Practices."

The faculty members report that they guide their student-teachers to use differentiated instructional techniques and strategies so that the future teachers can teach

children with diverse needs. This involves ensuring that the student-teachers are aware of different learning styles so that all students have opportunities to learn.

The faculty state that they effectively engage their student-teachers in examining issues related to prejudice, discrimination, stereotyping, race, poverty, gender, social class, ethnicity, and how to examine their own biases and privileges relating to the subjects. They encourage the student-teachers to be mindful about their own privileges associated with their upbringing and think about how inequalities that exist in the society affect student achievement.

The teacher educators noted that they offer specific instruction on disabilities to their student-teachers so that they able to teach students with different abilities. They integrate the relevant conceptual knowledge into their teaching and clinical practice. The faculty report that they are constantly look for ways to ensure that student-teachers become sensitive to the issue of accommodating students with disabilities. The faculty help their student-teachers to make sure the curriculum suitable to different types of learners so that all types of learners can participate in their every aspects of learning.

The faculty claim that they give top priority to preparing teachers that can support students with limited English proficiency. They teach how to assess different levels of language acquisition when students come to this country and how to support them in regular classes, applying specific instructional strategies that relate to each content area. The student-teachers go to the community centers and local schools and teach the English language learners, particularly those children from refugee community, to understand the children better and gain real experiences how to work and support the ELL students.

The secondary education faculty members stated that they help their student-teachers in understanding diversity, culture, traditions and how these factors can be included into their curriculum and instructions. The student-teachers are trained to design culturally relevant pedagogy and test their skills in the real life situation. In their service learning and clinical experience, they interact and work with diverse communities including the refugee and immigrant populations and learn how to value diversity and promote cultural awareness in their teaching.

The faculty members claim that they effectively utilize variety of technologies in their teaching and encourage their students to explore how they can apply them in their classroom teaching. They state that the student-teachers experiment with different technologies such as I-Pad, discussion boards, blogs, smart-boards or other applications including games, interactive quizzes, digital recordings etc. that enable children to think, reflect, write, and express their opinions in their own time and space. They work on technology projects that can support learners of different needs that they can incorporate the skills in their student-teaching.

The faculty note that they have introduced different kinds of assessment techniques to the student-teachers, taught how they can apply in the classroom, and helped them to explore how the assessment selected can affect students' performance. The faculty members say that the student-teachers learn what is happening in real life in their clinical practice, and how veteran teachers apply innovative assessment methods.

The NEU faculty point out that they have a strong clinical practice component in their program. The clinical practice is linked with classroom teaching at the local public schools and also connected with other partnership arrangements with community

organizations and school districts. Through clinical practice, the student-teachers learn to work with diverse groups of students coming from different race, culture, language upbringing, ethnicity, ability and socio-economic backgrounds, and are able to understand classroom realities.

The faculty indicated that each of their student-teachers have service learning associated with different schools, child clubs and community centers associated with almost every course. This allows the student-teachers to understand about the children, learn how to work with them, and be able to design curriculum in meaningful ways to support and improve academic performance of all children. They see what is happening in the real world, compare these experiences with their theoretical, book-based understandings, and are better prepared as future teachers.

The faculty report that they are directly involved in various partnership projects with local schools, school districts and with community organizations. They advise or manage the projects together with other stakeholders, and student-teachers participate as active learners, engaging in team meetings and experiencing first-hand how school reform takes place. They interact with students, teachers, administrators, parents, community-members and faculty from other universities, and get opportunities to broaden their understanding about teaching, classroom-environment, school, community, parents, and students and their needs.

The faculty report that they work together as a team and collaborate well with each other. This enables them to have programmatic cohesion and coherence especially when dealing with issues of diversity, issues of inclusion, and issues of race. They expressed they are successful at integrating their subject across cross-content areas, such

as science, social studies, statistics, and teach the subject matter from critical thinking perspective. Sometimes, they work with faculty beyond their program and incorporate the concepts of race and racism, issues of poverty, prejudice and discrimination into their program.

The faculty report that they are constantly involved in research activities relating to "Best Practices" of teaching in addition to their regular work of educating, supervising and advising their student-teachers. Some of their research projects are linked with their partnership works with local schools and community organizations where they investigate what works and what does not.

5.2 Discussions, Interpretations and Conclusions

My goal for this qualitative study was to understand where the NEU's secondary teacher educators find themselves in preparing teachers with respect to implementing "Best Practices" of teaching with the aim of meeting the needs of low achievers. Based on the data collected from the semi-structured interview with the faculty I found the faculty members who appear to be effective, competent, and confident in their work of adapting the major competencies of the "Best Practices" of teaching, as discussed in the literature review, to the preparation of the secondary school teachers. The detailed discussion of the findings and interpretations of the outcomes is presented in the following paragraphs.

First, I noticed that NEU has a very clear mission of preparing outstanding teachers "through innovative professional practices and scholarship in a changing world" so that they can work with students with diverse needs (NEU, 2013b). This gives a clear

mandate for NEU faculty to prepare competent teachers. When I hear the faculty's reflections of implementing "Best Practices" of teaching, I noticed that they are following their mission statement and trying to bring the change in the lives of children, whatever the student background. It seems to me that the faculty honor and respond to differences, adapt "Best Practices" of teaching, and encourage their student-teachers for high academic achievement of all students. MacCallum and Ross (2010) argue that "Best Practices" are normally difficult to put in action when the goals of TPPs are not clearly defined. However, as I noticed, this is not the case of NEU's teacher preparation program.

Second, I found that the faculty at the NEU's secondary program believe in social justice and equality, and are highly dedicated to these goals in their teacher preparation work. They talk about their background, their commitment, vision and goal for education. It seems to me that that the faculty are highly committed to preparing outstanding teachers who can work with different types of learners, and improve the academic performance of their students, including the low achievers. Based on the face-to face interview response of the faculty, I am confident that these teacher educators will have significant contribution in transferring their sense of social justice responsibility to the future teachers. As Finn & Finn (2007) state, teachers are to be prepared with social justice responsibility, so that they are aware about social, political and cultural context of teaching and learning, so that they can create a classroom environment where all children are successful. They should be prepared "with the attitude that all children are capable of achieving high academic success" (p. 8)

Third, the faculty members appear to be very successful in introducing many aspects of "Best Practices" of teaching in their teacher preparation work. They expressed they are doing very well in most of the areas, and have even won national and international awards for their good works. I did not have other evidence to evaluate, but hearing their opinions and comparing their ideas with the literature, I am convinced that they are the strong and effective advocates for "Best Practices" of classroom teaching and that they transfer these approaches to their student-teachers.

Fourth, when I compare the "Best Practices" of classroom teaching that NEU faculty members follow in their teacher preparation work with my list presented in chapter two, I found that the NEU faculty appear to be at a high level of performance. The faculty noted that they have strong clinical practice component in their teacher preparation program where their student-teachers have opportunity to work with diverse groups of students, differentiate instructional techniques, and adapt different kinds of assessment methods in their student-teaching process. This is in line with the "Best Practices" that Levine (2006) recommended in his study. He suggests that the "Best Practice" of teacher education must place heavy emphasis on practice teaching. He reported, successful teacher preparation programs can transform TPPs into professional schools which enable candidates to practice their teaching skills so that they are successful in improving the academic performance of all children. In this regard, Darlington-Hammond (2010) found in her study that clinical component is the key success of many teacher preparation programs where student-teachers apply different tools such as curriculum material selection, differentiation techniques, assessment strategies, and techniques of organizing groups in classroom teaching systematically.

The faculty at NEU asserted that they effectively engage their student-teachers in examining issues related to prejudice, discrimination, stereotyping, race, poverty, gender, social class, ethnicity, and how to examine their own biases and privileges relating to the subjects. Achieving these outcomes is consistent with the Lander and Ukpokodu and Johnson goals for the preparation of teachers. Lander (2011) suggests student-teachers are to be prepared to tackle racism and promote equality in the classroom. Similarly, Ukpokodu (2010) and Johnson (2007) advocate understanding critical issues such as poverty, race, gender, social class, ethnicity and diversity are essential elements of "Best practices" of classroom teaching. Based on my findings, I believe that the NEU faculty members interviewed do not fall into that group of teacher education faculty whom Schwabsky (2012) and Willinsky (2012) assert fail to prepare student-teachers adequately to teach students who come from diverse backgrounds in multicultural school settings.

The findings of my study indicated that the NEU faculty seem to give top priority to preparing teachers that can support students with limited English proficiency. The faculty teach how to assess different levels of language acquisition when students come to a new country and how to support them in regular classes, applying specific instructional strategies that can relate to each content area. Samson & Collins (2012) suggest all student-teachers need to be prepared for specific knowledge and skills to help ELL students in addition to teach grade level standards. The authors emphasized that classroom teachers should know not only the content but also have the expertise to support all students including the ELL students in their classrooms.

Another strong theme taken from the interviews with NEU teacher educators is that they are constantly involved in field-based research activities relating to "Best Practices" of teaching. They work closely with school districts, schools, teachers, and community organizations, and learn how they can prepare their student-teacher effectively in classroom teaching. At the same time, they engage their student-teachers in such activities so that the future teachers see what is happening in the real world and learn how they become effective teachers. This finding closely matches the characteristics of "Best Practices" Chiero & Beare (2010) have presented in their study. The authors have stressed that there should be increased field experiences, maintain closer contact between faculty and school districts, strong links between course works and clinical experiences, and continuous research how to educate student-teachers, so that they are able have knowledge and skills to address the current and future challenges of schools.

Similarly, I found that NEU educators give significant efforts to educate their student-teachers how to teach effectively with students with different abilities. The faculty offer specific courses on disabilities and integrate the relevant conceptual knowledge in their teaching and clinical practice. They constantly explore teaching strategies so that student-teachers become sensitive to the challenges of accommodating students with different abilities. This approach closely parallels the ideas of Education Secretary Arne Duncan's (US Dep. of Education, 2009) description of "Best Practices" of teaching. He noted that teacher preparation programs need to prepare teachers who should be able to teach diverse students with different abilities to improve student learning.

The NEU faculty's reports on their alliances with other stakeholders are consistent with Arne Duncan claims for "Best Practices" in teacher preparation (US Dep. of Education, 2009). The faculty interviewed reported on their partnerships with local schools, school districts and with community organizations. They noted the wonderful opportunities for student-teachers to interact with concerned stakeholders, participate in teaching, engage in team meetings, interact with children, and learn how school reform takes place. Furthermore, the faculty reported that almost every course at NEU's secondary program is associated with service learning either at schools, or child clubs or community centers. This high level of field-based experiences reported by the interviewees is consistent with Bates et al. (2009) research who concludes that service learning helps student-teachers to "see the capabilities and possibilities in their students." (p. 21).

The faculty members at NEU note that they apply a variety of technologies in their teaching and encourage their students to explore how they can apply such tools in their classroom teaching. The faculty reported their student-teachers work on various technology projects that can support learners of different needs and incorporate the skills in their student-teaching. Similar to my findings, Zemelman et al. (2005) consider use of modern technology in teaching and learning process as "Best Practices" of teaching. Likewise, NCATE (2010) stresses that teacher candidates should be able to integrate technology in their classroom teaching effectively so that it could support and improve student learning. Furthermore, Schnackenberg & Still (2014) suggest technology integration is a "Best Practice" for classroom teaching in a teacher preparation program.

The authors underline the importance of effective use of technology and its impact on student learning, something affirmed by the faculty interviewed.

In conclusion, it appears to me, based on the extensive interviews conducted, that all the above discussions on the competences of "Best practices" of teaching indicate that NEU's secondary education teacher preparation faculty do not fall into the category of faculty who fall to prepare teachers that are not able to cope with classroom realities and have very little effect on student achievement (Levine, 2006; Kukla-Acevedo & Toma, 2009; Greenberg et al., 2011).

Although I did not conduct a formal evaluation on these faculty, I feel confident that they are faculty who adapt many aspects of "Best Practices" of teaching into its teacher preparation process, and are increasingly successful in preparing competent and diverse teachers who are able to produce satisfactory performance of all students including the low achievers (Zemelman, Daniels, & Hyde, 2005, Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009, US Dep. of Education, 2011). From the face to face interview with the faculty, I learned that NEU offers courses and field experiences that support student-teachers learning "Best Practices" of teaching, based on current research, latest knowledge, modern technology and innovative procedures of teaching. I am convinced that these student-teachers are taught, supported and supervised by experienced, qualified and competent full time faculty and mentor teachers. I believe that they are deeply committed to ensuring high academic performance for all students, particularly those who come from lower income families and/ or from black or minority groups.

5.3 Areas of Improvement or Change

Although the faculty members claim they are doing very well in many of the competency areas of teaching "Best Practices" to their student-teachers, they would still like to improve further in some of the areas. Following are the possible intervention areas where the faculty feel they need improvements.

Some of the faculty members would like to work more on assessment strategies, so that they are more effective to help their student-teachers in terms of assessing where the learners are in their skills and how the assessment can create a self-awareness of their progress. They would like to work more on student-centered assessment techniques so that the assessment could provide feedback to the learners and, at the same time, the assessed would be able to feel ownership over the assessment. A small number of faculty members want to gain more skills and knowledge regarding how to deal with the issues of individuals with disabilities so that they are more effective to help their student-teachers. They are especially interested to learn more about accommodating students with special needs in the regular classroom environment and creating an IEP (individual educational plan) designed for each student.

A few faculty indicated that they would like to work more on integrating technology more effectively in their teacher preparation process, so that it would be meaningful and supportive to the students with different learning styles. In addition, some teacher educators at NEU's secondary program would like to improve their knowledge of various differentiation strategies for themselves and so that they can educate their student-teachers. The faculty members are envisioning the differentiation strategies from a boarder perspective, not only for instruction but also for curriculum and for student

assessment, so that each student is served as per his/her learning need and every student has equal opportunities for success.

A few faculty members believe they need to become more competent at preparing their student-teachers to accommodate ELL students in their teaching. They would like to improve their skills and knowledge on the subject and learn how to explore resources in terms of fulfilling the needs of students with limited English. A small number of faculty responded that they need to conduct more research on "Best Practices" of teaching and help their student-teachers to learn new skills so that they can teach low achieving students effectively. They are interested in research related to service learning, diversity, student achievement, social justice, technology and learning.

Some faculty responded that they need to do more work to further improve their students' clinical practice experiences, so that they have the opportunities to learn the essential competences to teach low achieving students effectively. The faculty felt they need to provide more qualified mentors to support student teaching processes and experienced faculty to supervise and advise them. A small number of faculty participants expressed they need to continuously review their teacher preparation work to make sure that they are effectively preparing competent teachers. They want to review their courses regularly to ensure that the student-teachers are acquiring the needed knowledge and skills to address the needs of low achieving students.

Some of the respondents felt they need to do more work to improve collaboration and information sharing with other faculty and department, and also help to transfer this skill to their student-teachers. The faculty stressed that in addition to teaching effectively, student-teachers need to know how to collaborate with their

students, other teachers, administration, families, communities and local organizations, and share the information respecting each other.

A small number of faculty have expressed that they need to continue to ensure that social justice component remains a central feature in their teacher preparation program. They need to work more on issues of discrimination, bias, prejudice and stereotyping in their teaching and transfer the knowledge to their student-teachers. They want to make sure that their student-teachers are able to understand the issues at a deeper level and able to create supportive learning opportunities especially for the low achieving students.

Some faculty stressed that they need to put more efforts on disseminating information within faculty and within their department. They want to make sure that everybody knows what is happening, who does what, how the program sequence flows, what is working well, and what are the "Best Practices" of teaching. This relates to another aspect of sharing and collaborating. The faculty expressed their teacher preparation program needs to build long term partnerships with schools and incorporate their teacher preparation activities more fully into those schools. The faculty members want to set up long-term relation with many more schools, create more opportunity to the faculty, mentors and student-teachers to work together, and learn "Best Practices" of teaching so that they can improve the academic performance of low achieving students.

The findings strongly suggest to me that these NEU faculty are reflective educators. Even though they feel very competent and proud of their good works, they nevertheless critically reflect on their work and identify areas in which they need to grow.

I encountered no defensiveness on their part. Instead, they indicate a strong desire to improve.

5.4 Recommendations for Effective Implementation of "Best Practices"

The teacher educators at NEU's secondary program expressed they encountered certain obstacles to their efforts to better prepare their student-teachers in implementing "Best Practices" of teaching. Here are some of their concerns, accompanied by my recommendations to improve their efforts of implementing "Best Practices" of teaching.

First, the faculty responded they have so many things to do and time management is always a challenge for them. They expressed they need to teach regular courses, supervise and advise their student-teachers, perform research activities, participate in different committees, attend meetings, and offer volunteer service to the community organizations such as school boards, local clubs, so they are always busy. In order to release the faculty from too many obligations, the NEU might engage more teaching assistants in the teacher preparation works, so that they can support the faculty in teaching, student-supervision, research and other activities. At the same time, the faculty's current work load might be revisited, with adjustments made in the distribution of their efforts among teaching, service, and research, so that they can be more quality focused.

Second, the faculty members responded that they experience student placement problems in implementing "Best Practices" of teaching. It is not always possible to find schools with diverse populations for their students-teachers. So it becomes a challenge to find placements where student-teachers can learn how to teach students effectively,

especially to the low achievers who come from diverse backgrounds. To solve this problem, I strongly recommend NEU to expand the partnership programs to other settings where the opportunity to work with diverse populations can be increased. NEU might even consider establishing satellite centers where UVM faculty are available to support the student-teachers in a diverse clinical experience.

Third, some faculty participants expressed that it was not always possible to find well qualified and experienced mentor teachers to support and guide student-teachers in their field experiment. Many times the NEU has to accept mentors whoever are available due to the limited options for selection. In order to address this issue, NEU might train and develop a pool of experienced classroom teachers to assist student-teachers in their field experience. These mentor teachers should be rewarded for their contribution and offered career development opportunity at NEU so that they are motivated to help the future teachers.

Fourth, a few faculty participants noted that is not enough space in the curriculum to incorporate all the competencies needed to address the needs of low achieving students. To address this issue, I would like to recommend that NEU might review their program looking for places where the offerings might be streamlined. In particular, they should look to enrich what do in the areas of differentiation techniques, special education, social justice, diversity, assessment techniques, technology and teaching ELL students, where the faculty identified needs to improve.

Firth, some of the teacher educators reported that they personally would like to gain more knowledge and skills in some of the competency areas of "Best Practices" of teaching. Some of the competency areas they want to learn more are on student

assessment techniques, special education, issues of disabilities, inclusion, incorporation of technology, differentiation strategies, community engagement, integration and accommodating ELL students in the learning process. A procedure should be established to gather systematically about faculty desires and needs. The department should design a professional development plan for the secondary preparation faculty that will be responsive to their concerns and ensure the continued upgrading of their knowledge and skills on "Best Practices" of classroom teaching.

5.5 Implications for Future Study

This study is based on face to face interviews with NEU faculty members who are directly involved in methods teaching classes at the secondary education program. So the findings represent only one side of the story in implementing "Best Practices" of teaching at the teacher preparation program. I would recommend a follow up study that includes participating all the stakeholder groups to evaluate the effectiveness of the NEU program from a variety of perspectives. This might include: school teachers who were trained at NEU, their administrators, other teachers, special educators, parents, and students who may also have direct knowledge about teacher preparation program. In this study, I would recommend considering data from course content analysis, review of students' academic progress and observation of classroom teaching of the NEU graduates. I would recommend to compare what they faculty say with what they actually do, compare their views of themselves and the student-teachers views of them, and the overall impressions of the other stakeholders about the outcomes NEU's secondary teacher preparation program.

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APPENDIX: A

Questions for Faculty Face to Face Interview

Q. No.1: Could you please talk briefly about your commitment to equity and how it influences your work preparing secondary teachers?

(Over the past few years, there have been interrelated discussions about "Best Practices" in teaching and ways to effectively teach low achieving students, many of whom are from low income families and/or are students from black or ethnic minority groups.
Here (next page) is a list of best practices, with particular focus on meeting the needs of low achievers. I want you to reflect on your work preparing teachers in light of these and respond to several questions of mine.)

Q. No. 2: What do you do in your teaching to help your students achieve these competencies?

Q. No. 3: Regarding these competencies, what do you see as the areas where you could do more? What factors stand in the way of you doing this?

Q. No. 4: What does your program do, beyond what you do, to help these future teachers achieve these competencies?

Q. No. 5: What do you think the program needs to do more of? What factors stand in the way now of you doing this?

Q. No. 6: Are there items on this list of competencies that you would not include and are there items that you consider important that have been omitted?

APPENDIX: A
Continued…

Teacher Graduates Prepared with "Best Practices"
(With particular reference to meeting the needs of low achievers)

- Are able to differentiate instructional techniques and strategies to effectively teach students with diverse learning needs. done
- Can select and adapt curriculum materials to be responsive to different learning styles. (No faculty talks about it in the in the interview. So there may not be much success in this aspect)
- Have skills, understanding, and attitudes to deal with issues of prejudice, discrimination and stereotyping that emerge in classroom settings. done
- Have examined how their biases and privileges related to race, class, and gender affect their interaction with students. done
- Have an understanding of how factors related to social class, race, gender and ethnicity might relate to students' performance in school. done
- Are able to provide learning opportunities that address the needs of students with disabilities. done
- Are able to provide learning opportunities that address the needs of students with limited English proficiency (ELL). done
- Are able to integrate technology to address the needs of students with different learning styles.
- Able to develop a classroom climate that values diversity and different cultures done
- Can employ a variety of assessment techniques to meet the needs of diverse learners.

APPENDIX: B

IRB Approval

The UNIVERSITY of VERMONT
Committees on Human Subjects
Serving the University of Vermont
and Fletcher Allen Health Care

RESEARCH PROTECTIONS OFFICE
213 Waterman Building
85 South Prospect Street
Burlington, Vermont 05405
(802)656-5040 ph
www.uvm.edu/irb/

Protocol Exemption Certification

TO:	Prem Timsina
FROM:	Gale Weld, Research Review Administrator
DATE OF CERTIFICATION:	18-Oct-2013
SUBJECT:	CHRBS: 14-172 Employing "Best Practies" in Teacher Education: Faculty Perceptions of Their Success and Their Needs in Preparing Teachers To Increase Student Achievement

According to federal regulations, certain types of research activities are "exempt" from formal Committee review and approval, however, University policy requires that all projects which involve human subjects be submitted to the Committee office for exemption determination.

Following such a review of your project, it has been determined that it qualifies for exemption, as indicated below, under Section 45 CFR 46.101(b) of the Federal Policy for the Protection of Human Subjects.

Exemption Category: 2
"Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

It is University policy to require all research to be conducted in accordance with the Belmont Report, which sets forth ethical principles for research involving humans as subjects. A copy of this report is available on our website under Rules, Regulations, and Guidance.

Modifications may affect the original determination of exemption, therefore, you must submit any proposed project modifications which affect human subjects for review prior to implementation (i.e. surveys, questionnaires, changes to on-line interventions, etc.).

This exemption is effective for the duration of the project UNLESS modifications are made that affect the original determination of exemption.