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Using an E-Mentoring Program for Enhancing Pre Service Teachers' Self Efficacy and Professional Development

by

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Abstract

The present study was conducted to identify the effect of using an e-mentoring program for enhancing 3rd year EFL students' teaching self efficacy and professional development. A quasi-experimental pre-post test control group design was employed. An e-mentoring program was developed by the researcher and used with the experimental group, whereas, the regular teaching method was used with the control group. Sixty males and females were randomly chosen and equally divided into an experimental group and a control one (thirty students each). The instruments included a needs assessment questionnaire to identify the teaching skills, and a teaching self efficacy scale and a teaching skills test. Analysis of data obtained showed that the experimental group achieved higher than the control group on both the self efficacy scale and the teaching skills test. Recommendations and suggestions for further research are presented.

Key Words: e-mentoring – Teacher self efficacy – Teaching skills

ملخص

هدفت الدراسة الحالية الى التعرف على اثر استخدام برنامج التوجيه الإلكتروني في تنمية الكفاءة التدريسية الذاتية والتنمية المهنية لدى عينة من طلاب وطالبات الفرقة الثالثة المتخصصين في اللغة الانجليزية. تم استخدام التصميم شبه التجريبي والاختبار القبلي - بعدي. تم اعداد برنامج توجيه الكتروني قائم على بعض الموضوعات التي يتم تدريسها في مادة طرق تدريس اللغة الانجليزية بالفرقة الثالثة لاستخدامه مع المجموعة التجريبية. اما المجموعة الضابطة فقد اتبعت الطريقة المعتادة. تم اختيار ستون طالبا وطالبة عشوائيا وتم تقسيمهم الى مجموعتين (٣٠) طالبا في كل



مجموعة. اشتملت ادوات الدراسة على استبانة لتحديد احتياجات الطلاب، مقياس الكفاءة التدريسية الذاتية وكذلك اختبار فى مهارات التدريس. أظهر تحليل النتائج ان المجموعة التجريبية تفوقت على المجموعة الضابطة فى التطبيق البعدى للمقياس والاختبار . وقدمت الباحثة بعض التوصيات والاقتراحات لبحوث مستقبلية.

الكلمات المفتاحية : التوجيه الالكترونى – الكفاءة التدريسية الذاتية – مهارات التدريس

Introduction

Online mentoring has grown in popularity as advances in social media and online communication over the last 20 years have given young people increasing ability to move the work of mentors into the virtual world. Online mentoring is frequently offered to isolated groups of youth as a way of offsetting their distance from potential mentors. It is also increasingly used in traditional mentoring programs to supplement face-to-face interactions.

Generally, mentoring refers to a relationship where one individual receives advice, coaching and guidance from another individual (Hamilton, 1993). Guest (2000) argued that mentoring involves sharing experiences, offering encouragement, developing insight, and experiencing growth through a two-way relationship.

Theorists explained the different functions of mentoring to help in the development of others. Gentry, Weber & Sadri (2008) have studied mentoring across a variety of contexts and disciplines, including faculty-student and faculty-faculty mentoring in educational contexts, and career development. The focus of this concept of



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mentoring is on the professional growth and development of the junior party (Clutterbuck, 2001). Homitz & Berge, 2008) emphasized that mentoring is becoming increasingly important in career development in the workplace as organizations become more dependent upon individual skills and the application of training in distanced locations. Perren (2003) identified several constructs within the concept of mentoring applicable to both teaching and training. These constructs include: a one-to-one relationship with the mentor being more experienced; an extended relationship focused on individual growth. The one-to-one relationship has been described by Shrestha et al. (2009) as an arrangement where one individual receives advice and counseling from another senior individual. This relationship has also been described as the face-to-face aspect of mentoring (Hamilton & Scandura, 2003).

Most e-mentoring is delivered asynchronously, that is with some delay between the exchange of messages between mentor and mentee, as would be found in most email, messages, chat, or text functions using computers or mobile devices. More recently, programs have emerged as a way of connecting individuals via video chat or synchronous interaction at certain times. Some e-mentoring involves the use of virtual environments and three-dimensional "spaces". (National Mentoring Resource Center, 2018).

There is some debate over the usefulness of e-mentoring as an approach to establish mentoring relationships,



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especially those who may benefit from the immediacy and intimacy of a relationship with an experienced person. However, many in the mentoring field see e-mentoring to be a form of mentoring that allows further explanation in the increasingly-online world. It may offer particular benefits for students who are isolated geographically or physically disable, as well as for groups of students in classroom settings as a way to virtually bring external expertise and professionals into the classroom.

The Concept of E- Mentoring:

The National Mentoring Resource Center (2017) mentioned that "Electronic, online, or digital mentoring, often referred to as e-mentoring, has grown in popularity over the last years. This is true as social media, text messaging, and online interaction such as chat functions or emails have become popular forms of communication, especially among young people. E-mentoring requires some form of information and communication technology (ICT), such as an Internet-connected computer, smartphone, or tablet".

E-mentoring is the linking of a more experienced person with a lesser skilled one. The main means of interaction between them is electronic (Hamilton & Scandura, 2003). E-mentoring is similar to traditional mentoring although there is limited research directly comparing the two concepts (Risquez, 2008). Thus, while e-mentoring is growing in use (Yaw, 2007), a fully developed concept of it has not been fully explored (Headlam -Wells, Gosland & Craig, 2005). O'Neil and Harris (2005) note that although



e-mentoring stem from traditional mentoring schemes, they are different. E-mentoring has been found to be an efficient method to enforce distance training and education. It also presents lower cost and increased flexibility (Shrestha et al., 2009), as the medium is free from time and place constraints (Akin & Hilbun, 2007). Thus, e-mentoring can suit busy time schedules and accommodate distanced locations

Reviewed outcomes of e-mentoring have included informational, psychosocial, and instrumental benefits for the mentee. Informational benefits refer to obtaining knowledge helpful to the mentee. The information represents subject matter transfer and is useful for real world application (Single & Single, 2005). Mentee can initiate the communication and activate discussion to obtain information (Yaw, 2007). Psychosocial benefits refer to self-esteem and confidence building in the mentee and improvement in his professional identity (Barton, 2001). The instrumental benefits refer to the growth of the relationship which promotes mentees and provides them with opportunities for increased advancement (Single & Single, 2005).

The Importance of E-Mentoring

In the past few decades, ICTs have transcended the geographical and psychological distance between people (Risque,2008). This type of communication allows individuals who live at a far distance, and who perhaps will never meet, to communicate and establish a relationship. In the context of mentoring, this means



mentor pairs or groups are not bounded by geographical location. It also allows communicators to overcome constraints associated with in personal meetings, such as scheduling or travel (Kasprisin, Single, Single, & Muller, 2003).

E-mentoring allows for a mentoring pair (or group) to build cohesiveness at a distance, and thereby build a social contact for youth who do not have it in close physical contact (O'Neill, 2011). Mentoring programs are increasingly designed to take advantage of these e-mentoring concepts for a variety of purposes, such as mentoring for youth in rural areas, those with illness or disabilities, those interested in pursuing certain professions or higher education.

Theory Behind E-Mentoring

The rapid growth of technology has had a significant effect on educational activities. As a result of this growth, a shift has taken place from a behaviorist teaching style to constructivist perspective which enables adult learners to build up knowledge collaboratively. E-mentoring, a valuable tool within the constructivism approach, can offer two ways of knowledge sharing environment in which learners can adopt what they learn into their profession.

The idea for the theoretical framework in this study was proposed through the theory of social learning. The Social Cognitive Theory was applicable to the concept of self efficacy. It deals with cognitive, emotional and behavioral aspects. Social Cognitive Theory throughout this study provided ways for new behavioral research in education.



Mentoring has now embraced technological advances so that participants can contact each other with synchronous and asynchronous communication tools such as face book, emails, etc. It helps in the self efficacy and the professional development of teachers.

Teacher Self Efficacy

Teachers' actions and behaviors are often related to their beliefs, perceptions, assumptions and motivational levels. That is why research on teachers' beliefs is of great importance in organizing teaching. One of the important beliefs that affect students' and teachers' outcomes is teachers' feelings of efficacy. Teachers' beliefs in their abilities to instruct students and influence their performance are very strong indicators of instructional effectiveness (Bandura, 1997). Witcher et. al. (2002) suggested that efficacious individuals hold the control of the events affecting their lives and display such behaviors allowing them to realize the desired outcomes.

Teachers' beliefs affect the way they teach, and their perceptions, judgments, decision-making and actions in the classroom (Johnston, 1992). In this sense, teacher training effectiveness is considered a significant part which is based on a personal sense of teaching efficacy (Yeung and Watkins, 2000). Determining the level of pre-service teachers' self efficacy belief may reveal how they will behave during in service training.



Theory Behind Teacher Self Efficacy

Self-efficacy beliefs are an important aspect of human motivation and behavior. They influence the actions that can affect one's life. Bandura (1995:2) explained that "self efficacy" refers to beliefs in one's ability to organize and execute the courses of action required to manage prospective situations". More simply, self-efficacy is what an individual believes he/she can accomplish under certain circumstances. The basic principle behind Self-Efficacy Theory is that individuals are more likely to engage in activities for which they have high self-efficacy and less likely to engage in those they do not (Van der Bijl & Shortridge-Baggett, 2002). According to Lunenburg (2011), people behave in the way that executes their initial beliefs; thus, self-efficacy functions as a self-fulfilling prophecy. Self-efficacy has influence over people's ability to learn, their motivation and their performance, as people will often attempt to learn and perform only those tasks for which they believe they will be successful.

E-Mentoring and Teacher Self Efficacy

E-Mentoring has been found to develop self-efficacy. Bandura (1997) stated that one's self-efficacy is an indicator of academic achievement. Following Bandura's theory of self-efficacy, showed that students who are involved in mentoring programs have been found to have a sense of self-efficacy.

Branch (2018) mentioned that "leadership is a key component of all school environments, as it is necessary for continuous learning, organizational growth, and



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individual development. School leaders are the cornerstones of good schools and aim to establish a setting that works toward improving the self-efficacy of all teachers. In the past decade, one of the most persistent problems facing the field of education is attracting and retaining exceedingly qualified teachers. The presence of teacher self-efficacy amid educators, significantly contributes to the degree of whether their dedication to the field is long-standing or not.

Bandura (1997) explained that one's self-efficacy is one of the best predictors of academic achievement. In schools, for example, following Bandura's theory of self-efficacy, students who are involved in mentoring programs have been found to have a sense of self-efficacy.

E-Mentoring and Professional Development

Professional development includes the processes that support the development of professional knowledge, skills, values and attitudes. Teaching professional development is a process that starts with the pre-service period and continues with the start of teaching and with the in-service teaching period. Successful teachers are individuals who learn life-long and refine their skills throughout their development and who learn and apply new methods (Kuzu, 2014). Rhodes, Grossman and Resche (2000) pointed out that the message mentors send out to mentees regarding the value of school stimulates adolescents such that their attitudes towards school improve their academic performance.



Background of the Problem

To verify the problem of EFL pre service teachers' lack of self efficacy and teaching skills, TEFL experienced staff members were informally interviewed to shed light on this issue. They asserted that self efficacy and teaching skills, though greatly needed for teachers, were rarely thought of. Lectures in Methods of Teaching course mostly deal with the theoretical background of the different teaching skills. Practicing is often neglected. Students are asked to collect some information about a certain prescribed topic from the prescribed course to be discussed the next lecture. Again, when they were asked to practice what they learned in front of their colleagues, they became embarrassed and worried and sometimes refused to share. This state of affairs was more emphasized by reviewing the literature related to these issues. Many authors and research workers emphasized that there has been little research done to investigate teacher self efficacy and the professional development of pre-service teachers. To shed more light on the problem, the researcher administered a teaching skills questionnaire to detect the points of weakness and strength in the participants' teaching performance. Skills that they showed weakness in are: formulating the behavioral objectives, planning lessons, managing the classroom, managing time, teaching and explaining, assessment, motivation, etc, Therefore, this research was hopefully expected to be a promising one to develop both pre-service teachers' self efficacy and teaching skills



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through an e-mentoring program designed by the researcher and used for this purpose.

Review of Literature

E-Mentoring

Studies on the influence of e-mentoring in students' lives have been conducted and have yielded different results. Examples include researches done on effects of e-mentoring on academic performance, on positive attitudes towards school, on relationships with peers, and on parental relationship (Karcher, 2009; Rhodes, 2002).

O'Neill & Gomez's (1998) study of "tele-mentoring" looked at a program for students in 7th to 12th grades who had lengthy e-mail relationships with volunteer mentors who advised them on some projects. Classroom observations and interviews were used to collect data at three different time points. The telementoring served as a practical way to provide support for ambitious learning, as indicated by students being able to think through their project approaches more productively and with continuing motivation. The researchers recommended that students' work should be made more visible to the mentors than what e-mail alone provides. Teachers were also found to require organizational tools to help them manage the program.

Campbell - Whatley (2001) pointed out that e-mentoring enhanced better attitudes towards school, increased feelings of competency and positive relationships with friends and family. Single and Single (2005) found that the benefits of e-mentoring were psycho-social and



instrumental to the mentee. Briefly speaking, studies on e-mentoring have explored the impact of e-mentoring on both the academic and attitudinal benefits of students on aspects such as self-esteem, self –efficacy and other domains.

Rhodes, Spencer, Salto & Sipe, (2006) looked at interaction between mentors and mentees via e-mail only in a program called the Digital Heroes Campaign. In this program, mentees were matched with online mentors over a two-year period. Using surveys, interviews, focus group discussions, and e-mail transcripts, researchers assessed the nature, types, and quality of relationships that developed in the program. They found that mentees and mentors both had a positive impact towards the program.

Culpepper (2008) examined whether or not e-mentoring had an academic and psychological impact on 32 high school students who were at risk of dropping out. Each student was matched randomly with a volunteer adult mentor. The pairs never met face-to-face—all communication was through e-mails. In a comparison of participants to nonparticipants, there were no significant differences between the two groups on self-esteem, attendance, or academic achievement. However, rich dialogue occurred between the students and mentors, which suggested the program needed further exploration.

Shpigelman, Weiss, & Reiter (2009) used e-mentoring to provide social and emotional support for youth who had



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socio emotional disabilities. Each mentor was matched with two mentees, and they were expected to communicate by sending at least two e-mail messages per week for about four months. Findings supported the potential of e-mentoring for personal development and empowerment of the selected population of youth. The majority of mentors and mentees were interested in the program.

Thompson, Joffries & Topping (2010) studied the effectiveness of e-mentoring for an e-learning module development. Participants followed face-to-face training meetings, linked with a Web based chat room facility. Mentors had eight hours per year per mentee, for e-mail, telephone and/or Face to face contact. Evaluation was based upon e-questionnaire feedback and Face to face interviews with mentors and mentees. It was concluded that e-mentoring offers a promising solution for developing new distance e-learning modules. .

Kumar, Johnson and Hardemon (2013) identified e-mentoring strategies used to mentor doctoral students in an online doctoral program. During semi-structured interviews, students reflected on the challenges faced when communicating with their mentors using online technologies, the usefulness of e-mentoring strategies, and their own approaches that were instrumental in the successful completion of their dissertations. Based on the findings, they concluded that a supervisor-student mentoring relationship can be successfully created whereby doctoral students are successfully supported in



an online environment.

Ndeke (2015) searched the influence of e-mentoring on self-esteem, self-efficacy, and academic achievement of secondary school students. The participants were 92. Data were collected using self-esteem questionnaire, self-efficacy questionnaire, and document analysis and focus group discussion guide. Significant differences were found between students in e-mentoring and non e-mentoring groups. The findings suggested that the e-mentoring program had positive influence on the mentees' self-esteem, self-efficacy and academic achievement.

Merrill, Kang, Siman, & Soltani, (2016) used a "blended" approach to mentoring. Ninth grade mentees communicated via e-mail and met face-to-face with college-educated mentors, and participated in weekly college preparatory classes. In a recent evaluation of 10th grade students in the program, data showed that those students who were in the iMentor program scored higher than comparison students after one academic year on measures of interpersonal support, future planning, college aspirations, and career planning.

Alemdag & Erdem (2017) designed an e-mentoring program for novice teachers and explored online interactions between mentors and mentees, participant satisfaction, and benefits of the program for mentees and mentors. The study included 14 mentees, 14 mentors, and 6 teacher educators. Data were gathered through online messages and semi-structured interviews. They



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found that the interaction frequency changed based on the participant group, the e-mentoring environment was mostly problem-based, and participants provided cognitive, affective, and instrumental support. Moreover, participant-related factors, as well as factors related to the design of the e-mentoring program were found to have influenced teacher satisfaction with the program. They also determined that the e-mentoring program provided different types of benefits for the professional development of mentees and mentors.

Moreover, there is scanty information or records of studies that may have been carried out in the schools to ascertain the influence of these face to face mentoring or e-mentoring programs on the lives of students. Given the attention that mentoring and information technology in communication are receiving throughout the world, research is needed to establish its influence.

Teacher Self Efficacy

Klassen (2001) maintained that several studies found gender differences, with boys rating their confidence higher than girls although their actual performance did not differ. Besides, Collins and Bissell (2004) found a correlation between self-efficacy and grammar ability.

The findings of the study by Hidi, Berndorff, and Aniley (2002) showed that children's genre-specific liking and self-efficacy of writing are closely associated and that both of these factors are also associated with their general interest in writing.

Pajares and Valiante (2005) demonstrated that student's



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self-efficacy perceptions predict their writing performance and play the meditational role that social cognitive theory hypothesizes.

Andrad, Wang, Du, and Akawi (2009) found gender differences. Grade-level differences in perceived efficacy for writing were found in some studies. Difficulties with specificity of self-efficacy measures, and with correspondence between measure and criteria task were also found in several studies.

E-mentoring and Teacher Self Efficacy

Allison (2010) explored the connection between participation in an out-of-school time creative writing for adolescent girls and development of self-efficacy in creative writing. The participants were 18 girls. The study utilized electronic method tools such as online interviewing. The findings indicated a strong connection between confidence and creative writing skills.

DiRenzo, Linnehan, Shao, & Rosenberg. (2010) conducted a study on lower-income middle and high school students. Contact between the students and mentors was completely online. Results showed that interaction frequency fully mediated the relationship between the mentee's previous Internet experience and initial participation motivation and general self-efficacy. Interaction frequency also was positively related to motivation, which was related to self-efficacy as well as Internet use and program satisfaction.

Flood (2012) investigated mentoring and self-efficacy among female undergraduate students. The study



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adopted a survey design. Students completed an online survey that collected basic information and then, if the student had a mentor, the College Student Mentoring Scale, finishing with the Task-Specific Occupational Self-Efficacy Scale. The study found that mentored students reported higher self-efficacy scores than those students without mentors.

Larose (2013) studied self-efficacy among college mentees. The mentors matched with college mentees evaluated their self-efficacy nine times, during their participation in an academic mentoring program. Three distinct groups emerged as follows: (a) mentors who perceived themselves as moderately efficient throughout the mentoring relationship (the moderate stable (MS) group), (b) mentors who considered themselves moderately efficient at the beginning of the match, and increasingly so as the relationship progressed (the increasing (IN) group), and (c) mentors who perceived themselves as very efficient at the beginning of the match, but who subsequently experienced slight fluctuations of their self-efficacy (the high unstable (HU) group). Several personal and experiential factors such as the mentors' sensitivity to distress and the mentees' parental autonomy support predicted the likelihood of belonging to the IN or HU groups (as opposed to the MS group). These findings are interpreted according to the premises of the self-efficacy theory.

Lyne (2013) studied the effects of teacher mentoring program on improving teachers' self-efficacy. A one-



group pre and post-test design was used to measure their self-efficacy (Lyne Mentor Scale) and achievement (Observation form). The sample used consisted of 21 teachers. This study used a one-group, pre/post-test design to gather information regarding both a change in teacher self-efficacy and a change in achievement level of their classes. The results of a mentee's overall self-efficacy were measured by having them fill out the Lyne Mentor Scale which included three different sets of self-efficacy criteria. The results indicated that both the teachers' self-efficacy and achievement improved.

E-Mentoring & Teacher Professional Development:

Lynn & Kelly-Vance (2001) conducted a study on the impact of online mentoring on academic achievement of at risk youths. An academic achievement test was administered to 12 boys who had mentors and 13 boys in control group. The results indicated that the group that had mentors had performed better than the control group. Similarly, Karcher (2009) carried out a study with 46 teen mentors and 45 comparison classmates. The results reported an improvement on academic achievement, self-esteem and connectedness.

Tutkun and Aksoyalp (2010) pointed out that teacher training in the 21st century should be given at a multicultural and international level. Thus, a teacher should be trained in a way to become sensitive to all the problems around, to put forward solutions to the problems and to be in a productive position. Face-to-face mentoring has been conducted for a long time as a



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solution regarding professional development (Boreen, Johnson, Niday & Potts, 2009).

Today, there are different applications related to the e-mentoring process, which starts with teachers' undergraduate years (Heirdsfield, Walker, Walsh & Wilss, 2008) and continues with their senior years at university and with their first years in teaching (Villani, 2009). Studies on e-mentoring are applications developed for overcoming an important difficulty both in helping teachers continue their profession and in maintaining their professional development (Klieger & Oster-Levinz, 2015).

Kahraman and Kuzu (2016) supported the professional development of information technologies pre-service teachers with e-mentoring approach. The e-mentoring program was conducted in four basic phases; preparation, matching, interaction and finalizing. The data were collected via journals, semi-structured interviews, focus-group interviews and reflection reports. The duration and frequency of interactions and the communication tools differed from one matching to another. The interactions revealed professional development. It was seen that the e-mentoring program had positive influence on their professional development and helped students and graduates share their knowledge and experience with each other.

Cetin & Sahinkarakas (2017) explored how a collaborative e-mentoring platform can be used as a supplemental tool for professional teacher development.



The platform consisted of a group of eight volunteer teachers. Five modules were prepared and implemented based on the needs of the teachers, and the data were collected constantly from various sources. Results revealed positive aspects and challenges of e-mentoring. Most teachers believed in the importance of having professional development support through e-mentoring. . Irby, Tong, & Lara - Alecio (2017) found that mentoring as professional development in schools can do the following: (a) retain teachers in the schools, (b) improve productivity and performance of the teachers, (c) increase commitment to and comfort with the teaching, and (d) effectively integrate new teachers into a program. In the case of the virtual mentoring as professional development, the research team has found that the mentors build the skills of the teachers who are better able to reflect on their own practice. The mentors also are not judgmental or critical; rather, they develop relationships that create a trusting environment for instructional improvement.

Self Efficacy and Teacher Professional Development

Fischman (2018) tried to determine principals' sense of self-efficacy for evaluating teachers, and to learn how or to what extent their professional development influenced their sense of self-efficacy. Eight elementary principals were interviewed using a semi-structured interview protocol based on the Principal Self-Efficacy Scale survey. Documents from professional development sessions, and an observation of training are also included in the data analysis. Principal participants showed a



moderate to high sense of self-efficacy for evaluating teachers, though the impact of that was not substantial.

Statement of the Problem

In the methods of teaching course used in teacher preparation programs, 3rd year English majors were not offered enough opportunities to develop their teaching self efficacy or their teaching skills. Therefore, they were in bad need of developing these skills if they were to be effective and proficient teachers. This was the main motive behind initiating such a study. Reviewing the literature on the significance of using e-mentorship in higher education and particularly with EFL pre-service teachers motivated the researcher to attempt an e-mentoring program for enhancing students' teaching self efficacy and their professional development.

Objectives of the Study

The objectives of this study were:

1. Enhancing teaching self-efficacy of participants following the e-mentoring program.
2. Enhancing participants' professional development through an e-mentoring program.

Questions of the Study

The major question of the study is:

"How can using an e-mentoring program enhance EFL post graduates' self efficacy and professional development?"

This main question can be branched into the following:

1. How can the e-mentoring program enhance the teachers' self efficacy in areas such as: classroom



context, school context, classroom management, and student engagement?

2. How can the e-mentoring program develop the teachers' profession?

Hypotheses of the Study

1. There would be a statistically significant difference (favoring the experimental group) between means of scores obtained by the experimental group and the control group in the post-performance on the teacher self efficacy scale.
2. There would be a statistically significant difference (favoring the experimental group) between means of scores obtained by the experimental group and the control group on the pre and post-performance on the teaching skills test.

Significance of the Study

The significance of the present study was represented in the following:

Helping students increase their teaching self efficacy by exposing them to an e-mentoring program.

Departing from the traditional over-dependence upon supervisors.

Providing students with an invaluable chance to override the limits of textbook-bound knowledge to thousands of other sources.

Course designers and instructors will find the program of e-mentoring useful and effective in the programs of teacher preparation as e-mentoring provides a good chance for both mentors and mentees.

Contributing to teacher preparation programs by providing a model of pre-service teacher professional development based on e-mentoring.

Delimitations

1. The study was delimited to (60) 3rd year English



majors at the Faculty of Education, Minia University in the 1st semester of the academic year 2018 - 2019. It was supposed that the enhancement of teaching self efficacy and professional development would support them in their future profession as teachers.

2. Teaching self efficacy skills were limited to the sub skills that were mostly needed by the participants and that were decided upon after conducting an informal interview on a sample of those students, TEFL staff members, and experts. These skills are:
 - a) Classroom context
 - b) School context
 - c) Classroom management
 - d) Student engagement
3. Teaching skills were limited to the sub skills that might cause some difficulties and were mostly needed by the participants. These were decided upon after administering a needs assessment questionnaire on a sample of those students, TEFL staff members, and experts. These skills are:
 - a) Setting Objectives
 - b) Teaching Vocabulary.
 - c) Teaching listening and speaking.
 - d) Teaching reading and writing.
 - e) Teaching grammar.
 - f) Managing the classroom.
 - g) Questioning Strategies
 - h) Types of drills (mechanical, meaningful, communicative, and repetition)



Definition of Terms

1-E- Mentoring

Akin and Hilbern (2007) defined e-mentoring as the merger of mentoring with electronic communications to develop and sustain mentoring relationships linking a senior individual (mentor) and a lesser experienced individual (mentee) independent of geography or scheduling conflicts.

Kimberly (2012) defined e-mentoring as a computer-mediated communication which uses synchronous and asynchronous means of communication to establish mentor-mentee relationship by collaborating virtual group of teams.

Operationally defined, e-mentoring is the relationship between an experienced individual (mentor) and a lesser skilled one (mentee), using electronic communications, such as e-mails- Facebook, chatting etc.

2-Mentee. A mentee is defined as an English teacher who receives individualized guidance and leadership from a more experienced English educator (Sheehan, Gonzalvo, Ramsey, & Sprunger, 2016).

The same meaning was used in the present study.

3-Mentor. A mentor is a knowledgeable person who guides the growth of another Individual (Conway, 2015).

4-Teacher Self Efficacy

Bandura (1997) defined self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments”.

Operationally defined, it is confidence in teacher's self ability to teach.



Methodology

A quasi-experimental pre-post control group design was employed. An e-mentoring program was designed by the researcher for enhancing self efficacy and professional development of the experimental group. Regular lecture teaching method was used with the randomly chosen control group (in the methods of teaching course). Thirty (30) male and female English majors enrolled in the 3rd year in 2018–2019 academic Year (1st semester) formed the experimental group and another (30) formed the control group. The data of the study were gathered by the means of a pre-post teaching self efficacy scale and a pre post teaching skills test. Participants were exposed to an e-mentoring program via the internet (Facebook group). At the end of the program, the same scale and test were re-administrated.

Variables of the Study

Independent Variable: An e- mentoring program. .

Dependent Variables

Enhancing 3rd year English majors' teaching self efficacy.

Enhancing 3rd year English majors' professional development.

Control Variables

All students were 3rd year English Majors at the Faculty of Education, Minia University. They had nearly the same age and language level.

The E-Mentoring Program

The e-mentoring program was designed by the researcher to enhance 3rd year English majors' teaching self efficacy and professional development. The content of the



program was based on the teaching skills that they learnt throughout the first semester in the methodology course giving more emphasis on the points of weakness that appeared when piloting the teaching self efficacy scale and the teaching skills test. A panel of jury members approved its suitability for the objectives and the participants. The program consists of eight sessions each of them represents a certain teaching skill. The material was uploaded to the students via the Facebook group.

Instruments of the Study

The following is a description of the different Instruments

1. Needs Assessment Questionnaire of Teaching Skills

Objective: To identify the teaching skills that were mostly needed by 3rd year students.

Construction: Construction of the questionnaire depends on the different topics normally taught to 3rd year students in the course of "methods of teaching". These topics include (forming behavioral objectives, teaching vocabulary, listening and speaking, reading and writing, teaching grammar, classroom management, etc.)

Validity

Seven jury members of TEFL specialists approved the validity of the questionnaire and its suitability to 3rd year English majors.

Data Analysis

Analyzing the data obtained showed that the jury members approved the major skills that are mostly needed and should be included in the program.



2. Teacher Self Efficacy Scale

Objective

The scale was designed to measure the teacher self efficacy of the participants.

Construction: The scale consists of four dimensions:

1. Classroom context self efficacy (10 items).
2. School context self efficacy (10 items).
3. Classroom management self efficacy (10 items).
4. Student engagement (10 items).

The total score of the scale is 200. The rating scale ranged from 5 to 1, respectively from (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree). Forty minutes were assigned for responding to all items. Participants were required to indicate their personal feelings about each statement by marking the number that best described their attitudes or feelings.

Validity of the Scale

a-Face Validity

The scale was constructed on the basis of the specific objectives included in the program. The scale was submitted to a jury of qualified and experienced EFL and TEFL specialists. They were requested to judge the linguistic stating, appropriateness, and fitness of the items for the participants. Their suggestions were taken into consideration. They confirmed the suitability and applicability of the scale.

b-Internal Consistency

The validity of the test was determined by internal consistency. The internal consistency of each dimension



was calculated by using (Pearson Correlation) formula. That was computed by calculating the correlation between the score of each dimension and the total score of the scale. Correlation coefficient ranged from (0.33) to (0.67), and Eta-Squared ranged from 0.97 to 0.98 as shown in Table (1) below. This indicates that the test has a high validity.

Table (1)

Internal consistency of Self efficacy scale Correlation, η^2 & Alpha Between Individual Domain and the Total Scale (Validity)

Domains	D1 Classroom context	D2 School context	D3 Classroom management	D4 Student engagement
R	0.60**	0.64**	0.67**	0.33*
η^2	0.98**	0.98**	0.97**	0.97
Alpha	0.87**	0.88**	0.91**	0.84

*Significant at 0.05 ** Significant at 0.01 total score = 200

Reliability

Reliability coefficient was done using test -retest method and showed that the reliability of the scale is (0.95) as shown in table (2) below. This shows that the self efficacy scale enjoys a high degree of reliability.

Table (2)

t-value and Correlation Between Mean Scores of the Test-re-Test of the Self Efficacy Scale

	No. of Ss	Mean	SD	DF	t-value	R
Test	30	70.63	7.24	58	0.07	0.95**
Re-test	30	70.50	7.32			

**Significant at 0.01 level



3. The Teaching Skills Test

Objective The teaching skills test was constructed to evaluate the teaching skills of the participants.

Construction The test was designed according to the objectives of the program. It consists of (60) multiple choice items in (8) dimensions. These are (behavioral objectives, vocabulary, listening and speaking, reading and writing, grammar, classroom management, questioning, and types of drills). The content of these dimensions was uploaded on a link on a Facebook group. The total score of the test is (60), one score for each correct answer. Sixty minutes were assigned for responding to the test items.

Validity of the Test

a. Face Validity

The face validity of the test was judged by TEFL experts. They confirmed the suitability and applicability of the test items..

b. The Internal Consistency

This was determined by Pearson correlation formula by calculating the correlation between the score of each dimension and the total score. The correlation coefficient was determined by test- retest method and was found to be between 0.56 and 0.82. Reading and writing dimension has the highest correlation (0.82), vocabulary and types of drills (0.76), objectives (0.75), class management (0.63), grammar(0.61),while listening, speaking, and questioning have the lowest correlation (0.56).See Table (3) below.



Table (3)

Internal consistency of the Teaching Skills test Correlation, η^2 & Alpha between individual dimensions and the total test

Dimension	Correlation	η^2	Alpha
1-objectives	0.75**	0.89**	0.53**
2-Vocabulary	0.76**	0.90**	0.62**
3-Listening and speaking	0.56**	0.84**	0.62**
4-Reading and writing	0.82**	0.91**	0.74**
5-grammar	0.61**	0.65**	0.49**
6-Class management	0.63**	0.84**	0.34*
7-questioning	0.56**	0.69**	0.28*
8-Types of drills	0.76**	0.91**	0.29*

*Significant at 0.05 ** Significant at 0.01 total score = 60

Reliability

Estimating the reliability of the test was done after the pilot study. The data obtained were computed and the reliability coefficient was found to be (0.90). Correlation coefficient was done using test-retest method. Table (4) shows that the teaching skills test enjoys a high degree of reliability.

Table (4)

t-Value Between Mean Scores of the test-re-test of the Pilot Study of the Teaching Skills Test

	No. of Ss.	Mean	SD	DF	t-value	R
Test	30	33.36	5.31	58	0.07	0.90**
Re-test	30	33.34	4.63			

**Correlation is significant at the 0.01 level

The Pilot Study

A pilot study was conducted about two weeks prior to the administration of the program to estimate the validity and reliability of the test. A group of 30 3rd year English



Majors were selected representing different levels of achievement. Piloting helped to correct unclear and ambiguous items. It helped to determine whether the items in the scale were functioning for use in the main study or not. The data collected during the pilot study were prepared, analyzed and interpreted. The instruments were reviewed according to the results obtained. Content validity was determined by consulting a panel of experts. The reliability coefficient of the test score was determined by the test–retest method.

Item Analysis

The effectiveness of each item was determined by analyzing students' responses to the items. Aikens (2000) reported that this analysis improves the test by discarding ineffective items, providing diagnostic information on what specific areas of the course content need greater emphasis, and identifying how far the test items are difficult and discriminating. The difficulty index of each item ranged from 0.40 to 0.80. The discrimination index ranged from 0.20 to 0.40.

Table (5)Indices of Difficulty, Facility & Discrimination of the Pilot Study of Teaching Skills Test

Dimention	Fac	Disc	Diff.
1-Objectives	0.30	0.30	0.70
2- Vocabulary	0.40	0.40	0.60
3- Listening &Speaking	0.50	0.30	0.50
4-Reading &Writing	0.40	0.25	0.60
5-Grammar	0.60	0.40	0.40
6-classroom Management	0.30	0.30	0.70
7- Questioning	0.60	0.40	0.40
8- Types of drills	0.20	0.20	0.80



Pre Testing

A. Pre testing of the Teaching Self Efficacy Scale

The experimental and control groups were pre tested so as to measure their teaching self efficacy before administering the e-mentoring program and to identify the degree of improvement in their teaching abilities

In order to test the teaching ability of the participants before administering the e-mentoring program, the teaching self efficacy scale was administered. Results showed that there was no significant difference as t-value (0.07) is not significant at 0.05 level. See Table (6) below.

Table (6)

t-value between mean scores of the Experimental and Control Group in the Pre- Self Efficacy Scale

group	No of Ss	Mean	SD	DF	t-value
Experimental-pre	30	73.27	8.33	58	0.07*
Control- pre	30	73.43	9.42		

*Not Significant

Maximum score= 200

Pre testing of the Teaching Skills Test

To find out the level of the participants in different teaching skills that they need to master and be mentored at before implementing the e mentoring program, the teaching skills test was applied before implementing the program. Results showed that there was no significant difference as t-value (0.071) is not significant at 0.05 level and η^2 is (0.002). See Table (7) below.



Table (7)

t-value between mean scores of the Experimental and Control Group in the Pre-Teaching Skills Test

group	No. of Ss.	Mean	SD	DF	t-value	η^2
Experimental pre	30	32.47	6.73	58	0.071*	0.002
Control pre	30	31.20	6.81			

*Not Significant

Maximum score = 60

Procedure and Treatment

A. The Experimental Group

1. Reviewing literature on e-mentoring and its relation to teaching self efficacy and professional development of teachers. The e-mentoring program was constructed with the aim of:
 - highlighting the importance of teacher self efficacy.
 - raising the participants' professional development.
 - allowing participants to practice different teaching skills.
 - encouraging students' autonomy through using various activities.
 - helping those students who could not attend the lectures because of illness, inability to attend in time of teaching, etc.
2. Administering the pre-post scale of teacher self efficacy to identify participants' teaching self efficacy level at the beginning of the first semester of the academic year 2018/2019 and before administering the e-mentoring program.
3. Administering the pre-post teaching skills test to



- identify students' level at the beginning of the experiment.
4. The e-mentoring program lasted for 8 sessions besides an introductory session about e-mentoring and a concluding session for the participants' reflections on the program, on the use of e-mentoring and on the mentor. The target mentees were met twice a week via the internet with their mentor so as to ask about any difficulty they might encounter. Many materials and media such as Facebook group, CDs, videos, and activities were used.
 5. The researcher established the relationship between her (as the mentor) and the mentees. She tried to attract the mentees to the e-mentoring program showing its benefits and advantages and the different teaching skills they were going to deal with.
 6. She explained the procedures to be followed in the e-mentoring program and how to access the internet to meet with the mentor and colleagues.
 7. The researcher, as a mentor, explained the practical arrangements such as how often the mentor and mentees would meet online, as well as whether cancelling meets was acceptable.
 8. She gave them notice that every one is responsible for his/her own learning.
 9. The online phase of the e-mentoring program was designed and uploaded on a Facebook page named "*Methods of Teaching English E-Mentoring 1st semester 2018-2019*"



10. The link of the Facebook group is <https://www.facebook.com/groups/475329456309183/>
11. Various kinds of activities and questions depending on the content of the session; e.g. formulating objectives, , preparing a lesson plan, presenting and explaining the lesson, directing questions, managing the classroom, , teaching skills, assessment, etc. were available on the link.
12. The role of the mentor was to monitor and facilitate the process throughout, guide students' thinking, check their answers on the target questions and clarify any misconceptions. As a 'critical friend', she also directed them towards areas of development that might be important.
13. Mentees were requested to deliver their comments (via e-mail) to participate in an electronic mentoring relationship, and correspond electronically (via the Facebook) on course-related concepts of greatest interest to the student over the entire semester. They provided their comments and reactions on the uploaded videos.
14. There was a non judgmental approach where mentees were treated with respect and honesty.
15. The Final session gave students opportunities to judge the use of the program from their own points of view. They were also asked to give their feedback and reflections on the benefits and shortcomings of the e-mentoring program and the mentor as well.
16. Most important was that the mentor had to work on



the communication skills such as listening and questioning skills to ensure the mentees understand the content of the sessions.

17. Administering the post self efficacy scale and the post teaching skills test in order to measure the level of improvement after using the e-mentoring program. .

2-The Control Group

The control group was trained using the regular face to face lecturing.

Findings

The "t-test" was utilized for the analysis of data obtained from the scale and the test. Scores were analyzed and compared.

Hypothesis (1)

Hypothesis (1) predicted that the e-mentoring program would enhance the teacher self efficacy of the experimental group. Analysis of data using t-test indicated that their mean scores on the post self efficacy scale was higher as compared to the pre- administration as t-value (36.03) and Eta- squared (0.99) are significant at 0.01 level. Consequently, the first hypothesis is confirmed and accepted. See table (8).

Table (8)

t-value & η^2 Between Mean Scores of the Experimental and Control Groups on the Post- Self Efficacy Scale

group	No of Ss.	Mean	SD	DF	t-value	η^2
Experimental	30	162.00	10.62	58	36.03*	0.99
Control	30	74.83	7.62			

*Significant at 0.01

Comparison of the results of the experimental group on



the pre and post teaching self efficacy scale shows that the experimental group achieved a significant degree of improvement on post testing of than on pre testing. The obtained t-value (35.45) is significant at (0.01) level and beyond as shown in table (9) below.

Table (9)

t-value & η^2 between Mean Scores of the Experimental Group in the Pre-post Self Efficacy Scale

Experimental	No of Ss	Mean	SD	DF	t-value	η^2
Pre	30	73.27	8.33	58	35.45**	0.99
Post	30	162.00	10.62			

**Significant at 0.01

Comparison of the pre and post achievement of the control group on the teaching self efficacy scale shows that the control group did not achieve any improvement as t-value (0.62) is not significant at (0.05) level. Table(10).

Table (10)

t-value & η^2 between mean scores of the Control Group in the Pre-Post Self Efficacy

Control	No. of Ss	Mean	SD	DF	t-value	η^2
Pre	30	73.43	9.42	58	0.62*	0.003
Post	30	74.83	7.66			

*Not Significant

Hypothesis (2)

Hypothesis (2) predicted that the e-mentoring program would enhance the professional development of the experimental group. Analysis of data using t- test indicated that their mean scores on the post test was higher compared to the control group as t-value (8.68) and Eta- squared (0.96) are significant. See table (11)



Table (11)

t-value & η^2 between mean scores of the Experimental and Control Group in the Post-Teaching Skills Test

group	No of Ss	Mean	SD	DF	t-value	η^2
Experimental	30	64.03	6.40	58	8.68**	0.96**
control	30	31.70	6.18			

* *Significant at 0.05 level

Comparison of the results of the experimental group on the pre and post teaching skills test shows that this group achieved better on post testing than on pre testing as the obtained t-value (7.86) is significant at 0.05 and η^2 is (0.98) as shown in table (12).

Table (12)t-value & η^2 between mean scores of the Experimental Group in the Pre-post Teaching Skills Test

Experimental	No. of Ss	Mean	SD	DF	t-value	η^2
Pre	30	32.47	6.73	85	7.86**	0.98
Post	30	46.03	6.40			

**Significant at 0.05 level

Comparison of the results of the control group on the pre and post teaching skills test shows that they did not achieve better on post testing than on pre testing. The obtained t-value (0.30) is not significant at 0.05 and η^2 is (0.002) as shown in table (13).

Table (13) t-value & η^2 between mean scores of the Control Group in the Pre-post Teaching Skills Test

control	No.	Mean	SD	DF	t-value	η^2
Pre	30	31.20	6.81	58	0.30*	0.002
Post	30	31.70	6.18			

*Not Significant



Discussion

The present study was conducted to investigate the effect of using an e-mentoring program on enhancing teacher self efficacy and teaching skills of 3rd year English majors at the Faculty of Education– Minia University.

Results of the present study are encouraging and promising as they show that there are statistically significant differences between the means of the participants' scores on the pre-post application of the teaching self efficacy scale in favor of the post one. This indicates that the participants' teaching self efficacy has been enhanced. These findings are consistent with those obtained by Crossman and Rhodes (2002) who reported that mentoring relationship that take hold and grow progressively over time are more likely to impact positively with time.

Before implementing the e-mentoring program, participants' performance showed that they were in bad need of being mentored. Consequently, training them through the e-mentoring program gave them enough opportunity to fill the gap in their preparation and to score higher on the post performance.

This study involved thirty 3rd year English majors students who were mentored online by the researcher as a faculty member in an online program. Participants represented a group chosen specifically to participate in the e-mentoring program for certain circumstances among which were their continuous absence from face to



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face lectures due to different reasons, or their physical illness, or their inability to come in time due to difficulties in shifting from far distant places, and sometimes because they were busy in some work to earn money for living, etc. The findings obtained are specific to the context of the online program. Thus, the e-mentoring was a viable approach for students with certain circumstances to access social and peer support within a format that reduces physical barriers to accessing mentors. Nevertheless, the discussion of challenges faced is useful to other online pre-service teachers and educators.

In relation to professional development, the researcher obtained further data from the participants who were engaged in the e-mentoring program. The participants reported that e-mentoring enabled them to improve their teaching performance. Moreover, there are positive results reflected on participants' reports They mentioned that they have received study materials via the established link on Facebook from their mentor which helped them to perform well on the post tests. The positive results could also be attributed to the fact that the e-mentor had attained quite a high level of education. The results might have also been affected by the continuous contact, and support the mentor provided in the training of the e-mentees. These findings agree with those obtained by Batch (2018) and Alemdag & Erderm (2017) who found that the e-mentoring program provided different types of benefits for the professional development of mentees and mentors and concluded that



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e-mentoring can be an influential method to help pre service teachers develop their teaching self efficacy.

In the present study also, e-mentoring could assist the professional development of mentees and mentors, thus building a constant collaboration among both parties. Literature review about teachers' mentoring and e-mentoring revealed the impact and the outcomes of e-mentoring to the profession for both mentors and mentees (Alemdag & Erdem,2017).

The findings agree with those of Quing Li, Loorman and Dyjur (2010) who found that e-mentoring had significantly enhanced students' achievement. Rhodes, Grossman and Resche (2000) also showed that the message mentors send out to mentees encouraged them and improved their performance. Several other researchers found that mentoring had positive impact on academic achievement among whom are (Thompson and Kelly, 2001; Rodger and Tremblay, 2003;Kaula, 2010). However, Karcher (2009) and Renee (2009) whose studies involved both males and females found that, males more than females seemed to benefit more significantly from the e-mentoring program.

An important aspect of preparing students to become successful teachers of English is teaching practice organized in local schools. To learn how to become effective practitioners, student teachers need to acquire specific knowledge and skills, some of which greatly depend on teaching practice experience and mentoring procedures.



The biggest challenge of EFL teacher mentoring is absence of trained mentors. In order to be able to demonstrate good practice, reflect and discuss observed lessons, mentor teachers should have specific training in mentoring skills. The present study argues that successful mentoring should result from mentoring courses made available to all enthusiastic teachers of English committed to their own professional development. Such courses can be strong holds of high professionalism securing effective English language teaching.

Finally, the study specifically reaffirms the importance of e-mentoring relationships in enhancing students' self-efficacy and, consequently, their professional development.

Conclusion:

The results of the study reflect the importance of the e-mentoring program. in developing students' teacher self efficacy and teaching skills. Students highlighted the benefits of using the e-mentoring program as an effective way for developing their efficacy and teaching skills. They indicated that they enjoyed the online training program which was very motivating and interesting. They were satisfied with learning through different activities and questions which encouraged them collaborate, cooperate and debate with each others and with the mentor. Those activities increased their efficacy and professional development. Providing students with clear and obvious instructions before and after providing them with the



material online helped fostering their understanding of the basic components of the course they were required to absorb and use in actual performance. There is evidence that providing supportive feedback throughout is highly effective and appreciated from the student as revealed in their reflections. Through this feedback, students' strengths in teaching were stressed and possible suggestions for improvement were offered. Some of students' reflections were: *"I enjoyed the online mentoring because it gave me insight into how to teach"; "I now recognized different teaching skills that I did not know before"; "I liked my mentor's comments and feedback; " I liked to collaborate with my friends as they helped me to be more involved in teaching." "I could search for videos related to the teaching topic and upload them on the Facebook page", " I think e-mentoring could solve my problem of not being punctual in attending the methodology classes", " I could easily interact with my mentor all the time", "The mentor used to solve any difficulty I encountered patiently, wisely and with much respect and honesty.", " I feel that my self confidence increased", "the e-mentoring program could compensate me the missing lectures"*.

It goes without saying that the results gained from analysis of data are indicators of the effectiveness of the e-mentoring program in enhancing the self efficacy and the professional development of the mentees.



Difficulties facing the researcher during the experiment

- Mentees needed to be trained on accessing the internet.
- Mentees must have necessary information technology skills.
- Establishing rapport with the mentor was sometimes difficult.
- Losing visual cues and verbal communication with the mentor and with peers.
- Sometimes mentees could not express their emotions and thoughts on paper or screen.
- E-mentoring could be more time consuming than face to face mentoring.

Recommendations of the Study

The following are some recommendations that the study came up with.

1. Depending on the significant results of the present study regarding the effect of the e-mentoring program on students' self efficacy and teaching performance, the researcher highly recommends continued training of the e-mentors to ensure the achievement of results.
2. Continuous interactions between mentors and mentees in e-mentoring gave a chance for positive and better relationships to be created and for mentoring to make positive impact in the mentors' and mentees life. Thus, e-mentoring is recommended in teacher training programs.
3. New courses of Teaching English to pre service teachers have to be developed at faculties of teacher



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education with the objective of providing student teachers with effective training in methods of teaching English.

Suggestions for Further Research

The researcher recommends that further research be conducted in the following areas:

1. studying the role of e-mentors in the e-mentoring process and getting to know their reactions on the e-mentoring program.
2. Investigating the effects of e-mentoring on heightening self-esteem and self motivation.
3. studying the effect of e-mentoring on the e-mentors. investigating the effects of college e-mentoring programs on academic performance.



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