THE INFLUENCE OF EDUCATION-THEMED MOVIES ON PRE-SERVICE TEACHERS’ PERCEPTION OF EFFECTIVE TEACHER ATTITUDES AND PERSONAL-PROFESSIONAL ATTRIBUTES

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ABSTRACT

THE INFLUENCE OF EDUCATION-THEMED MOVIES ON PRE-SERVICE TEACHERS’ PERCEPTION OF EFFECTIVE TEACHER ATTITUDES AND PERSONAL-PROFESSIONAL ATTRIBUTES

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The purpose of this study was to investigate pre-service teachers’ experiences with education-themed movies, determine their perceptions on effective teacher attributes, attitudes towards teaching profession, and the relationship between their perceptions and attitudes, and find out the influence of seeing an education-themed movie, number of movies seen, gender, major and grade level on their perceptions and attitudes. Thus, a survey design was employed with a sample of 427 second, third and fourth year pre-service teachers enrolled in a public university in Ankara. Three instruments developed by the researcher were used to collect data.

The data were analyzed through quantitative and qualitative methods. First, the analysis showed that most participants saw an education-themed movie, and some of them re-watched these movies and/or found them influential. Second, it was found that pre-service teachers’ perceptions on effective teacher attributes and attitudes towards the profession were positive, and there was a statistically significant relationship between their perceptions and attitudes. Third, the one-way MANOVAs revealed that seeing an education-themed movie, gender and major had statistically
significant influences on their perceptions on effective teacher attributes and attitudes towards the profession.

Considering their influence, the movies should be selected carefully. Pre-service teachers should be given opportunities to become more aware of effective teacher attributes and develop their attitudes towards the profession. Moreover, this study should be replicated with similar samples and qualitative studies should be conducted to better understand the factors that may influence their perceptions on effective teacher attributes and attitudes towards the profession.

**Keywords:** Education-themed movies, pre-service teacher education, effective teacher attributes, attitudes towards teaching profession.
ÖZ

EĞİTİM TEMALI FİMLERİN ÖĞRETMEN ADAYLARININ ETKİLİ ÖĞRETMEN TUTUMLARINA YÖNELİK ALGILARI VE KİŞİSEL-MESLEKİ NİTELİKLERİ ÜZERİNDEKİ ETKİSİ

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Veriler içerik analizi, betimsel ve çıkarımsal analizler yoluyla analiz edilmiştir. İlk olarak, bulgular, öğretmen adaylarının çoğunun eğitim temalı bir film izlediğini ve adayların bu filmleri bir defadan fazla izlediklerini ve/veya bu filmlerden etkilendiklerini ortaya çıkarmıştır. İkinci olarak, öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumlarının olumlu olduğu ve adayların algıları ile tutumları arasında istatistiksel açıdan anlamlı
bir ilişki olduğu bulunmuştur. Üçüncü olarak, tek yönlü MANOVA'lar, eğitim temalı film izlemeș olma, cinsiyet ve bölünün öğretmen adaylarının öğretmenlik mesleğine yönelik tutumları ve etkili öğretmen niteliklerine ilişkin algıları üzerinde istatistiksel açıdan anlamlı etkileri olduğunu ortaya koymuştur.


**Keywords:** Eğitim temalı filmler, hizmetöncesi öğretmen eğitimi, etkili öğretmen nitelikleri, öğretmenlik mesleğine yönelik tutum.
To my cat, for being there for me,
not giving up loving and supporting me
even in the darkest of times.
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<tr>
<td>ATTP</td>
<td>Attitudes towards Teaching Profession Scale</td>
</tr>
<tr>
<td>CEIT</td>
<td>Computer Education and Instructional Technology</td>
</tr>
<tr>
<td>CHED</td>
<td>Chemistry Education</td>
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<tr>
<td>CoHE</td>
<td>Council of Higher Education</td>
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<tr>
<td>EFA</td>
<td>Exploratory Factor Analysis</td>
</tr>
<tr>
<td>ELT</td>
<td>English Language Teaching</td>
</tr>
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<td>EME</td>
<td>Elementary Mathematics Education</td>
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<td>ESE</td>
<td>Elementary Science Education</td>
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<td>FLE</td>
<td>Foreign Language Education</td>
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<td>MHED</td>
<td>Mathematics Education</td>
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<td>MoNE</td>
<td>Ministry of National Education</td>
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<tr>
<td>“PETA”</td>
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<td>PHED</td>
<td>Physics Education</td>
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<td>SSME</td>
<td>Secondary Science and Mathematics Education</td>
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CHAPTER 1

INTRODUCTION

In this chapter, information about the background of the study, the statement of the problem, the purpose of the study, the research questions, the significance of the study and definitions of major terms used in the study are introduced.

1.1 Background of the Study

It is undeniable that education is an indispensable part of individuals’ lives and developments. Being an important component of education, teachers are responsible for teaching knowledge and skills, and helping students develop personal characteristics that enable them to apply the knowledge and skills they have acquired (Orlosky, 1982). Therefore, it can be stated that education is not restricted to acquisition and dissemination of knowledge, but it also involves enabling individuals to develop the interests, attitudes and values that will help them transfer what they have learned into their lives.

Teaching, one of the most important professions, has a power to influence the lives of others. Few professions have an opportunity to touch people’s lives and leave a long-lasting impact. Moreover, Kavcar (1982) expressed that teachers are important since they are a determining factor of the success of an education system, and teacher quality is one of the most important factors having an impact on student achievement. Quality teachers, who hold the attributes of effective teachers and have positive attitudes towards the profession, can change others’ lives. For that reason, quality teachers and the characteristics of such teachers have always been a topic of interest, and research studies were conducted on these issues (Darling-Hammond & Youngs, 2002; Goe, 2007; Rice, 2003; Wayne & Youngs, 2003). Considering the related literature on teacher quality, it can be understood that teaching requires not
only subject knowledge but also pedagogy knowledge, personal attributes and professional skills (Goe, 2007; Liakopoulou, 2011). An effective teacher should value the profession, know how to deal with problems occurring in a classroom efficiently and build strong interpersonal relationships with students, along with having adequate knowledge of subject. Due to the importance of the profession, teaching should be carried out professionally and teachers should be qualified to pursue their professions. In this regard, teachers should hold the characteristics of effective teachers and have positive attitudes towards their profession to be role models for their students and make a difference in their lives.

It is important for teachers to have positive attitudes towards their professions, one of the determinants of teachers’ behaviors, since it affects their proficiency and enables them to construct student-centered classroom environments (Bhargava & Pathy, 2014; Kontaş, 2016). Similarly, Başbay, Ünver, and Bümen (2009) and Kalhotra (2014) declared the fact that positive attitudes towards teaching is influential in teacher effectiveness and pursuing the career in an effective way. Considering teacher quality is one of the factors impacting on the achievements of students, and that attitudes influence the effectiveness of teaching, possessing positive attitudes towards the profession is highly essential. Thus, a considerable effort should be made on improving it. In a similar manner, Çakıroğlu and Işıksal (2009) stated that education faculties give importance to improve beliefs possessed by teacher candidates about education due to the impact of beliefs on their behaviors in the classroom. This is a critical issue in that not all students enrolled in teaching programs volunteered to be in these programs and to pursue the profession, so they need guidance to enhance their views on education. However, education faculties offer courses which are mostly concerned with providing teacher candidates with content knowledge and general culture (Council of Higher Education, 2018). To help pre-service teachers be more familiar with the dynamics of the classroom, the school environment, and the roles of teachers, and help them learn the profession better, they should be offered with extra opportunities.
According to Blasco, Blasco, Levites, Moreto, and Tysinger (2011), movies present life stories that are familiar to individuals’ world and have the capacity to provide individuals with several life experiences. They are considered significant for displaying fictional or real stories about different experiences, and they can be used so as to learn others’ lives, how individuals handle daily-life problems and build interpersonal relationships. Furthermore, movies and especially education-themed movies can be used as an instructional tool for enabling teachers and pre-service teachers to learn about the dynamics of the school and classroom environment, relationships between teachers, students, administrators and parents, and the characteristics of effective teachers. Besides, they can be integrated into curriculum since they contribute to the development of many skills, and they may have a positive influence on teachers’ and educators’ pedagogy (Available Light Advisory, 2012).

Available Light Advisory (2012) further noted that teachers and educators are motivated through movies, and they become more enthusiastic about teaching when they watch education-themed movies. Today, there is an increase in the number of education-themed movies, and there is a tendency for using popular culture to prepare pre-service teachers for the class (Dalton, 2013). It is assumed that the integration of such movies into teacher training programs may enhance teacher quality in terms of attitudes towards the profession and attributes of effective teachers held by pre-service teachers. According to the studies conducted by Kaşkaya, Ünlü, Akar and Özturan-Sağırlı (2011) and Kontaş (2016), watching education-themed movies has a significant impact on teacher candidates’ attitudes towards teaching profession. Also, movies have a positive impact on teacher candidates’ readiness to the profession and they can be triggers for the pre-service teachers for altering their values, beliefs and behaviors (Tan, 2006). Blasco, Moreto, Blasco, Levites, and Janaudis (2015) claimed that using movies in teaching is important in that it provides an effective way for reaching human beings’ affective domain, promoting reflective attitudes and linking learning to experience. It was also expressed that movies help teachers confirm and clarify their role to include different
perspectives to facilitate learning. In the light of the existing studies, and the probable impact of education-themed movies, it can be said that education-themed movies might be influential in enhancing pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession.

1.2 Statement of the Problem

Holding positive attitudes towards teaching profession is essential for teachers in that it has an impact on their proficiency, and helps them pursue their careers in an efficient way (Başbay et al., 2009; Bhargava & Pathy, 2014). Considering its influence on the effectiveness of teaching and learning, having a positive attitude towards the profession is highly essential. Along with holding positive attitudes, a teacher should also own the attributes of effective teachers since such teachers are capable of helping individuals learn better (Cruickshank & Haefele, 2001).

According to Lamote and Engels (2010), teacher training programs offer courses on the responsibilities and roles of teachers, however the teacher identity, teachers’ perceptions on themselves as teachers, is not the focus of these programs. Similar situation is valid for teacher education in Turkey, as well. When the curricula for teacher training programs in Turkey, applied in 2018-2019 Academic Year, were examined, it was seen that 60-70 percent of the courses offered in these programs were focusing on general culture and content knowledge, and the remaining focuses on pedagogy knowledge and pedagogical content knowledge (CoHE, 2018). Therefore, teacher candidates have few opportunities to enroll in classes which aim to enhance their attitudes towards teaching and to develop attributes needed for the profession. Yaşar, Karabay, and Bilaloğlu (2013) claimed that teacher training programs and the courses offered in these programs are essential for pre-service teachers to develop the teacher identity within themselves. However, most of the teacher candidates do not realize the roles of teachers and the challenges of the profession, and they do not feel like teachers before they experience the actual school environment (Yaşar et al., 2013). Similarly, the study conducted by Kaşkaya et al. (2011) revealed that pre-service teachers became aware of the responsibility of being
a role model and the problems they might face while pursuing the profession. In addition, they became motivated for pursuing the profession after being exposed to the school setting through watching education-themed movies.

Yakar (2013) noted that realizing the effectiveness of using movies in military education in the 1st World War, the research committees in Europe and America conducted studies on the advantages and limitations of the use of movies in education. Similarly, the number of educational movies and handbooks regarding their use has increased since then (Yakar, 2013). According to Birkök (2008) with the development of the movie industry, the use of movies as an instructional tool became widespread since they can be used to teach any subject, and they can contribute to individuals’ social and moral development. Birkök (2008) further stated that movies trigger several senses at once, and they are able to convey massive amount of information and to communicate abstract messages more effectively than written materials. Being considered as one of the most influential tools, movies can be integrated into education and can be used while teaching complicated topics, concretizing abstract issues, increasing learning, and fostering learners’ problem-solving skills (Yakar, 2013).

The studies in the literature revealed that movies impact inservice and pre-service teachers, as well. Blasco et al. (2015) claimed that the use of movies can have a positive impact on teachers, since it helps them improve their self-knowledge, their relationships with peers and students, and enhance their professional development. Additionally, the use of movies in education provides an opportunity for reaching the affective domain of learners, promoting their reflective attitudes, and linking learning to prior experiences (Blasco & Alexander, as cited in Blasco et al., 2015). Available Light Advisory (2012) reported that integrating films into the curriculum helps individuals learn and enhance youngsters’ social and cultural developments. Moreover, it is stated that using films positively impacts behavior, motivation, relationships between students and staff, and educators’ pedagogy. Confirming the influence of movies on educators and education, Scull and Peltier (2007) noted that
education-themed movies help shaping the perceptions of individuals. Similarly, Tan (2006) commented that movies can be triggers for the pre-service teachers for altering their values, beliefs and behaviors. This argument was supported by the studies conducted by Kaşkaya et al. (2011) and Kontaş (2016) in that they found watching education-themed movies had an impact on pre-service teachers’ attitudes towards teaching profession.

Considering the increase in the number of education-themed movies and the use of movies in education, there is a need to investigate whether these movies are influential in teacher education. Specifically, it should be determined whether they have an impact on pre-service teachers’ attitudes towards teaching profession and perceptions on effective teacher attributes.

1.3 Purpose of the Study

In the last few decades, there has been an increase in the number of movies and television series displaying teacher and student figures, relationships between students and teachers and the educational environments (i.e. schools and classrooms), and a great deal of people are exposed to them. Moreover, the number of studies regarding the impact of movies on teachers and students are increasing.

Movies provide individuals with stories of others and affect both their thoughts and feelings. Available Light Advisory (2012) argued that movies motivate both teachers and educators, and enthuse them about teaching. Because of their undeniable influence on individuals, movies started to take place as an instructional tool in educational settings and as a part in professional development, as well. In a similar way, Ministry of National Education (2018) published a list of education-themed movies which may contribute to teachers’ personal and professional development (see Appendix B). MoNE’s primary goal was to increase the quality of teachers and help them become leaders and reflective teachers.

Considering the growing number of education related movies and TV series, increasing exposure to these movies, the studies on the importance and influence of
education-themed movies, and the initiatives taken to foster teachers’ quality through
the use of movies, it is considered important to conduct a study to investigate their
impacts on pre-service teachers, as well. To this end, the purpose of this study is to
explore pre-service teachers’ experiences with education-themed movies, and
investigate the influence of seeing an education-themed movie and the number of
movies seen on prospective teachers’ perceptions on effective teacher attributes and
attitudes towards teaching profession. Furthermore, the study aims to determine pre-
service teachers’ perceptions on effective teacher attributes, attitudes towards
teaching profession and the relationship between their perceptions on attributes of
effective teachers and attitudes towards the profession, and find out the influence of
gender, major and grade level has on the perceptions of pre-service teachers on
attributes possessed by effective teachers and the attitudes held by them towards the
profession.

1.4 Research Questions

The research questions and sub-questions related to the purpose of the study are
listed below. The following two research questions and five related sub-questions are
formulated to achieve the purpose of the study.

1. What are the experiences of pre-service teachers with education-themed
movies?

2. What is the influence of education-themed movies on pre-service
teachers’ perceptions on effective teacher attributes and attitudes towards
teaching profession?

2.1. Does seeing an education-themed movie have an influence on pre-
service teachers’ perceptions on effective teacher attributes and
attitudes towards teaching profession?
2.2. Does the number of education-themed movie seen by the pre-service teachers have an influence on their perceptions on effective teacher attributes and attitudes towards teaching profession?

3. What are pre-service teachers’ perceptions on attributes of effective teachers, their attitudes towards teaching profession, and the relationship between the pre-service teachers’ perceptions on effective teacher attributes and attitudes towards the profession?

4. What is the influence of various variables (i.e. gender, major and grade level) on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession?

4.1. Does gender of pre-service teachers have an influence on their perceptions on effective teacher attributes and attitudes towards teaching profession?

4.2. Does the major of the pre-service teachers have an influence on their perceptions on effective teacher attributes and attitudes towards teaching profession?

4.3. Does the grade level of the pre-service teachers have an influence on their perceptions on effective teacher attributes and attitudes towards teaching profession?

1.5 Significance of the Study

Arts and humanities enable individuals better understand emotions and contribute to the development of academics and learners. Being an important resource in education, life stories are commonly used while teaching ethics and human values, and it enables individuals to be exposed to a wide range of experiences (Blasco et al., 2015). What is more, the use of movies can have an influence on faculty teaching and stimulating professional growth, and it has a positive impact on teachers, since it helps them improve their instruction and their relationships with peers and students,
and contribute to their professional development (Blasco et al., 2015). Another positive impact of watching education-themed movies is that they provide educators with a source of motivation and enthusiasm about teaching (Available Light Advisory, 2012). All things considered, the present study aims to determine the impact of experience with education-themed movies on pre-service teachers’ attitudes towards teaching profession and perceptions on effective teacher attributes.

This study is deemed significant for two main reasons. First, although there are several studies conducted on prospective teachers’ attitudes towards teaching profession, and the impact of education-themed movies, there is still a gap in the literature. The review of the existing studies showed that though attitude towards teaching profession is a frequently studied topic, most of the studies investigated the impact of certain variables such as gender, major, grade and the preference order of the profession in university entrance exam (Başbay et al., 2009; Bozdoğan, Aydin & Yıldırım, 2007; Eret-Orhan & Ok, 2014; Güneyli & Aslan, 2009; Hacıömeroğlu & Şahin--Taşkın, 2010; Kaplan & İpek, 2002; Özder, Konedralı & Zeki, 2010; Kesen & Polat, 2014; Uyanık, 2017; Üstüner, Demırtaş & Cömert, 2009; Sağlam, 2008; Tanrıöğren, 1997; Taşdemir, 2014; Tezci & Terzi, 2010; Tok, 2012). However, the number of studies concerning the impact of education-themed movies on pre-service teachers is quite limited. It is known that, in the last few decades, the number of education-themed movies and TV series has increased significantly and access to these movies became easier. Today, educators and researchers favor the use of movies in their instructions, and they are conducting studies in order to discuss the use of movies in education, and to investigate their impacts on several variables such as learners’ achievement, motivation, self-efficacy beliefs and attitudes (Altan, 2016; Available Light Advisory, 2012; Bırkök, 2008; Blasco et al., 2015; Choi, 2009; Dalton, 2013; Gregory, 2007; Kaşkaya et al., 2011; Kontaş, 2016; O’Bannon & Goldenberg, 2008; Oruç & Sarıbudak, 2015; Scull & Peltier, 2007; Tan, 2006; Vandermeersche, Soetaert & Rutten, 2013). Among these studies, few of them focused on the movies’ influence on teacher candidates’ attitudes towards the profession, and these studies’ scope are narrow in that they only investigated few
variables and they collected data from small samples. Furthermore, based on databases searched, such as Academic Search Complete, Education Science, ERIC, SAGE Journals Online, Google Scholar, ScienceDirect, Scopus, SpringerLink, Taylor & Francis Online Library and ULAKBIM until December 2019 there are no studies on the impact of such movies on perceptions of prospective teachers on effective teacher attributes. There was one study focusing on the impact of school and teacher-themed movies on pre-service classroom teachers’ critical thinking skills, which was not directly related with the purpose of the present research study, in EBSCO. Also, the studies, examining pre-service teachers’ perceptions on effective teacher attributes, were mainly concerned with the impact of race, gender, grade level, education level (i.e. undergraduate or graduate), and favored school level to teach (Çakmak & Gündüz, 2018; Minor, Onwuegbuzie, Witcher & James, 2002; Ogden, Chapman & Doak, 1994; Semiz & Zibande, 2014; Witcher & Onwuegbuzie, 1999). However, the impact of education-themed movies on pre-service teachers’ perceptions on effective teacher attributes has not been a topic of interest before. Therefore, there still is a need for studying the influence that these movies have on teacher candidates.

Second, a literature review of the databases of ProQuest, ULAKBIM, Ulusal Tez Merkezi and YOK revealed that the impact of educational movies on teacher candidates’ perceptions on effective teacher attributes and attitudes towards teaching profession has not been a topic of interest in either Master’s Theses or PhD Dissertations until December 2019. With the growing emphasis on the use of movies, and the increasing number of education-related movies and TV series employing teacher figures, it is considered important to conduct a comprehensive research study to identify these movies’ influence on teacher candidates’ attitudes towards teaching profession and perceptions on personal and professional attributes of effective teachers.

Considering the gaps in the literature, this study aims to examine pre-service teachers’ experiences with education-themed movies, and to determine the influence
of seeing an education-themed movie and the number of education-themed movies watched on pre-service teachers’ attitudes towards teaching profession and perceptions on effective teacher attributes. In addition, the impact of other variables such as gender, major, grade level will be investigated, as well.

1.6 Definition of Related Terms

**Education-themed Movie:** Education-themed movie is a movie whose story is mostly about education. These movies concern with topics such as educational system, classroom and school management, instructional techniques, special education, school-parent relationships (Silman, 2017), and positive and negative teacher behaviors (Altan, 2016). A movie is not categorized as an education-themed movie just because it involves teachers, principles, or students as characters, and a classroom or school as the main setting of the movie. To consider a movie as an education-themed movie, it should be related with education, have an educative purpose, motivate for teaching and/or learning, examine the dynamics of the classroom and school environment, or criticize the educational system. *Three Idiots, Dead Poets Society, Stand and Deliver,* and *Taare Zameen Par* can be given as examples for education-themed movies (Altan, 2016; MoNE, 2018; Silman, 2017).

**Pre-service Teacher:** Pre-service teacher refers to any student who is enrolled in a teacher education program but has not yet completed all the requirements of the program (Ampadu & Adjei-Boateng, 2018; McKenna, 2019; Polly & Shepard, 2008). In this study, it refers to an individual enrolled in a teaching program at Faculty of Education of a University, and is used as a synonym of teacher candidate and prospective teacher.

**Effective Teacher:** According to Raspberry (1993), a good teacher cares and supports students, is able to establish positive relationships with others, is enthusiastic about his/her job and proficient in his/her field of study. Focusing more on the teacher’s impact on student achievement, Cruickshank and Haefele (2001) defined an effective teacher as a person who can help students learn. Considering
these definitions, in this study, effective teacher is defined as a person who is knowledgeable in one’s field of study and pedagogy, is able to conduct interactive and meaningful instruction, is fair, is encouraging, respects individualistic differences, inspires students, makes a difference in others’ lives and responds to the different needs of each individual. Moreover, such a teacher is enthusiastic about what s/he does, and believes in each student’s capabilities to learn.

**Effective Teacher Attributes and Skills:** Researchers explained that effective teachers own personal attributes which are related to personality (Cruickshank, Jenkins & Metcalf, 2009; Goe, 2007) and professional skills which have an important impact on students’ achievement (Cruickshank et al., 2009). The eight personal attributes possessed by effective teachers are being enthusiastic, credible, warm and humorous, holding high expectations for achievement, being supportive and encouraging, being businesslike, flexible and knowledgeable (Cruickshank et al., 2009). In addition to the personal attributes, there are several professional skills held by effective teachers. These skills are focusing and engaging students’ attention, using instructional time efficiently, conducting interactive instruction and providing feedback and reinforcement (Cruickshank et al., 2009).

**Attitude towards Teaching Profession:** Camadan and Duysak (2010) defined attitude towards teaching as an individual’s thoughts on teaching, values attached to teaching, and performance showed while pursuing the profession. In a similar way, Kontaş (2016) stated that attitude towards teaching profession is the perceptions possessed by teachers towards their profession, and it provides an insight about teachers’ professional behaviors. In this study, attitude toward teaching profession is defined as the values attached to the teaching profession, thoughts about the teaching profession and the competency beliefs towards teaching profession.
CHAPTER 2

LITERATURE REVIEW

In this chapter, theoretical background of the study and empirical studies on education-themed movies, attitudes towards teaching profession and effective teacher attributes are presented.

2.1 Education-Themed Movies

Altan (2016) defined movie as a collection of moving pictures that is made to entertain, provoke, enthuse people, to make them think or to transfer social messages. Moreover, an education-themed movie can be categorized as a movie whose story is mostly about education. Altan (2016) and Silman (2017) expressed that such a movie revolves around the topics such as classroom management, instructional techniques, and teacher behaviors.

2.1.1 Importance of Movies

Movies are effective tools for communication since they can convey cultural values, attitudes and behaviors. Owing to the fact that they tell a variety of stories about life, movies can attract the attention of people from every walk of life (Altan, 2016). In addition to being a source of entertainment, movies are also educative since they contain life stories, and provide opportunities for observing others’ experiences and how they deal with real-life problems. According to Bandura’s (1977) social learning theory, observation and modelling are important in acquiring behaviors, attitudes and affective reactions. Similarly, Ruiz (1999) believed that individuals learn beliefs, values and attitudes through observing others. Anything that is observed can be learned by the individuals and the models could be presented in different forms (e.g. films). Similarly, Blasco et al. (2015) asserted that using aesthetics, including
movies, have a positive influence on stimulating learners’ reflection, and it is an important step for concept learning.

According to Blasco et al. (2015), arts and humanities enable individuals to better understand emotions and contribute to the development of academics and learners. Moreover, the use of movies can have an influence on faculty teaching and stimulating professional growth, and it has a positive impact on teachers, as well, since it helps teachers improve their self-knowledge and their relationships with peers and students. Being an important resource in education, life stories are commonly used while teaching ethics and human values, and it enables individuals to be exposed to a wide range of experiences. Making use of humanities such as literature, theater and cinema help promoting reflection and dealing with attitudes and emotions (Blasco et al., 2015). Similarly, according to Blasco and Alexander, the use of movies in education provides individuals with an opportunity to reach learners’ affective domain, promote their reflective attitudes, and link learning to experiences (as cited in Blasco et al., 2015). As stated by Blasco et al. (2015), teaching through movies can help individuals build their own identities by providing a world similar to theirs and comprehend the messages related with attitudes and values which are transmitted by the characters in the movies. In addition to this, they enable educators to teach quickly and directly, to improve their instruction and to enhance their professional development.

2.1.2 The Use of Movies and Videos in Education

It is important for educators to consider individual differences, and learners’ preferred learning styles to hold their attention and help them learn better. Because of the nature of the movies, they are able to address such differences, engage different types of learners and increase learning, understanding and retention of information (O’Bannon & Goldenberg, 2008). Similarly, Yakar (2016) favored the use of movies in the classroom environment in that it has several benefits for helping individuals retain information, providing visual cues so as to respond their needs, helping develop vocabulary, transferring culture, enabling analysis of abstract messages, and
motivating. Providing students with theoretical knowledge makes information abstract. However, if the knowledge is presented through a character in a movie, it becomes more relevant, and students understand it better (Gregg, Hosley, Weng, & Montemayor, 1995). Considering the fact that especially the latest generation, which is accustomed to the technology-driven world, is more inclined to learn better when they can relate the course content to a movie (O’Bannon & Goldenberg, 2008).

According to Groves (2014), in the recent years, there has been an awareness that traditional teaching methods are not always adequate. Specifically, for the average students, the efficiency of the methods used becomes critical. In an attempt to improve the efficiency of teaching methods, universities and other higher education institutions have become interested in making use of visual communication methods such as movies and television. Similarly, both scholars and employees argued that using multimedia (e.g. movies) enhances learning (Clayton, 2013), and owing to the fact that movies are effective materials for influencing cultural awareness and developing thinking skills, they have been used in both liberal arts and science education (Rorrer & Furr, 2009). In accordance with these views, de Oliveria and Gonçalves (2018) found out that teachers who teach at various educational stages make use of different genres of films as instructional materials and they link the themes of these movies to the content they teach.

According to Yakar (2013), the effectiveness of using movies in military education in the 1st World War created an awareness for the role of cinema in education, and to investigate the advantages and limitations of the movies, research committees were formed both in Europe and America. Following the research studies which were conducted by such committees, the number of educational movies and handbooks regarding their use has increased, but suffering from lack of materials, financial support and deficiencies in teacher education, Turkey could not adopt a scientific approach in using movies for educative purposes (Yakar, 2013). Moreover, the limited number of educative movies in Turkey, the challenges of adapting the existing ones for educative purposes, and the lack of instructional technologies, using
movies has not been favored as an instructional method (Yakar, 2016). In addition to
the increase in the number of movies produced for teaching a specific subject in
Europe and America, studies related to the use of other full-length films in academic
fields such as literature, education and history have increased after 1920s (Yakar,
2013). In these years, one of the most common studies concerning the use of movies
in education in America and Europe was the ones focusing on the use of movies on
teacher education, and these studies revealed that movies impact social skills and
increase academic achievement. Based on the findings of previous studies, today,
movies became an important instructional tool (Yakar, 2013).

Yakar (2013) stated that the use of movies in education started in 1907. Including
other forms of art such as music, dance, literature and architecture, cinema is one of
the most influential tools that can be integrated into education, and it can be used for
several purposes such as teaching complicated topics, concretizing abstract issues,
increasing learning, and preparing pre-service teachers to classroom. As argued by
Birkök (2008), with the development of the movie industry, the societal function of
movies increased, and their use became widespread since they can be used to teach
any subject. Since there exist several movies on topics such as science, art, history,
and human rights, they can be used as an instructional material to teach different
courses and concepts such as assessment, decision making and stereotypes, to
illustrate the courses taught, to facilitate discussions, and to remind the topics taught
before (Birkök, 2008; O’Bannon & Goldenberg, 2008). Movies are effective tools
for education because they convey knowledge through both images and sounds, and
they have the potential to communicate complex information to wider audiences
(Birkök, 2008). The concretization and visualization of abstract concepts through
media helps individuals perceive the instruction as realistic, and observe the
application of ideas into a variety of situations (Clayton, 2012). Similarly, according
to Svenson and Sheats (1950), several film forums were conducted between 1941
and 1944, and it was found that movies help transmitting information and facilitating
discussions. Moreover, according to O’Bannon and Goldenberg (2008), movies
provide an opportunity for learners to receive the knowledge and store it in their long-term memory and to learn in an untraditional way.

Despite their widespread and effective use in teaching the content matter, Birkök (2008) asserted that the use of movies should not be restricted to a way of transmitting information but they should also be used to help individuals monitor their behavior. According to Birkök (2008) and Available Light Advisory’s (2012) report, focusing on the importance of film education on youngsters, the use of movies by educators, and movies’ integration into the curriculum helps students learn, and contributes to their social, moral and cultural developments since attitudes can be transferred and behavior models can be created through movies.

In addition to their impacts on students, movies are useful for pre-service and inservice teachers, as well. Available Light Advisory (2012) informed that using films positively influences behavior, motivation, relationships between students and staff, and pedagogy of educators. According to the results of the teachers’ survey conducted by Film: 21st Century Literacy, majority of the teachers recommended that movies should be a part of teacher education programs. Recently educators and faculty members have started to use popular culture so as to prepare teacher candidates for the classroom (Dalton, 2013), to help pre-service teachers explore and analyze the classroom work, become reflective about teaching practice, and develop problem solving skills to use in their work (Fennell, 2013). Several views on the benefits of using movies were advocated by researchers. According to McCormick, use of education-themed movies in teacher training might have an influence on helping pre-service teachers have positive attitudes toward teaching profession (as cited in Güven-Yıldırım, 2015). Similarly, Tan (2006) asserted that movies can serve as triggers to alter the values, beliefs and behaviors held by pre-service teachers. Moreover, as stated by Blasco et al. (2015), movies help teachers identify their role in including various perspectives in facilitating learning.

Although some studies favor the use of education-themed movies, some of them suggest that using movies as instructional materials has disadvantages, and it might
be harmful for viewers’ ideas on education, attributes of teachers and the school environments. Supporting this, Vandermeersche et al. (2013) claimed that there is a reluctance to use movies in education in that the stereotypical elements concerning teacher characteristics and school cultures contained in the movies presents misinformation about teaching and learning. Moreover, McLean (1995) declared that the depiction of schools in the entertainment industry regarding the stereotypical representation of administrators, teachers and students, and the suffocating physical condition of the schools increased the public’s negative beliefs about American schools and resulted in a misunderstanding about the public schools which harms their effectiveness. In addition to their negative impacts on publics’ views, movies may distort that of inservice and pre-service teachers, as well. The fact that education-themed movies create the “superteacher myth” and generally represent teachers as superhuman who are able to change individuals’ lives immediately puts a great burden on teachers (Farhi, 1999). Furthermore, despite partially representing the reality about schools and teaching, the misinformation communicated through movies damage future teachers’ understanding of the schools, teachers, students and communities in urban areas (Grant, 2002).

Besides, researchers further stated that using movies might be disadvantages since they are long and time consuming, their production is expensive, and excessive use of movies might negatively impact viewers’ reading comprehension and writing skills. Likewise, it is often difficult to select and obtain a movie which is suitable for the topic taught or the message intended to be delivered (Altan, 2016; Yakar, 2013, 2016, in press). Moreover, the fact that teachers are not proficient in using movies limits their advantages as instructional materials (Yakar, 2016).

2.1.3 Research Studies on Education-themed Movies

Altan (2016) stated that teachers in movies impact real teachers and society, and help creating an awareness and consciousness. He further stated that although these movies were not made for teaching teachers how to teach, they helped both inservice and pre-service teachers realize what they may encounter with in their professions,
learn about examples of instruction in different environments and observe the experiences of other teachers (Altan, 2016). Realizing the importance and effectiveness of using movies in education, several studies on the use of education-themed movies were conducted by researchers. In the following, research studies which aimed to analyze the education-themed movies, and to investigate their impacts are provided.

In his article, Tan (2006) discussed the use of movies in developing philosophical reflection skills of teacher candidates. In order to study the effects of movies in fostering pre-service teachers’ reflection skills, Tan (2006) used four popular movies (i.e. The Lord of the Rings, Dead Poets Society, The Matrix and The Simpsons). The researcher worked with 25 teacher candidates, mostly fresh/new university graduates, from Singapore. During the study, participants watched videos, attended lectures, class activities and discussions, and they wrote two reflective journal entries for each movie. The results of the study suggested that using these four movies helped teacher candidates be able to reflect, and their reflections on the movies can help increasing pre-service teachers’ readiness to the profession of teaching in Singapore.

In his article, Choi (2009) analyzed an education-themed movie called Freedom Writers, which was about the story of a high school teacher in California. He mentioned about the educational theories underlying the pedagogy of Gruwell, the main character, and established four themes, namely rewriting curriculum, considering students in charge of constructing their own knowledge, building classroom community and teaching as self-realization, which were considered as what makes Gruwell effective. According to Choi (2009), the film showed that it was possible for teachers to use alternative methods of teaching within the standards of education, and the fact that teachers could create a big difference.

Kaşkaya et al. (2011) conducted a study in order to analyze the influence of education-themed movies on pre-service teachers’ attitudes towards teaching profession and their self-efficacy beliefs. The researchers randomly selected 102 pre-service teachers enrolled in 2nd grades of primary School Teaching, Elementary
Mathematics Education, Elementary Science Education and Social Sciences Teaching programs offered at Erzincan University. In the study, the researchers administered a pre-test in an attempt to reveal pre-service teachers’ attitudes and self-efficacy beliefs. After the administration of the pre-test, six movies (i.e. *The Chorus, Dead Poets’ Society, Freedom Writers, School of Life, Emperors' Club* and *50 Brave Violinists*) were shown to the pre-service teachers, and each movie was followed by a discussion about the movie and the teaching profession. A post-test was administered to the candidates after they have seen six education-themed movies. Then, structured interviews were conducted with randomly selected 16 students from each program. In addition to the interviews, voluntary students were asked to write letters to the dean of the faculty in order to describe their feelings towards the movies. In order to determine pre-service teachers’ attitudes towards the profession, a 35-item scale developed by Çetin (2006) was used. Also, in an attempt to identify their self-efficacy beliefs, the researchers developed a 17-item scale. To analyze the data, t-test, one-way ANOVA, Wilcoxon signed ranks, Kruskal Wallis H and Mann Whitney U tests were utilized. Apart from this, the analysis of the qualitative data was carried out by content analysis. The findings of the pre-test showed that attitudes of pre-service teachers enrolled in Mathematics Education, Primary Education and Social Sciences Education programs were statistically more positive than the ones enrolled in Elementary Science Education program. Moreover, when the findings of the pre-test and post-test scores were analyzed, it was seen that there was a meaningful difference in pre-service teachers’ attitudes towards teaching profession in favor of the post-test. According to the findings of the study, no significant difference was found among pre-service teachers’ professional self-efficacy perceptions after the presentation of the movies. However, it was seen that there was a significant difference between pre-test and post-test scores obtained from Teaching Profession Self-Efficacy Scale in favor of the latter one. The interviews which were conducted after exposure to the education-themed movies revealed that pre-service teachers possess the fear of being insufficient for their students. The candidates also stated that the movies created excitement for the profession and responsibility of being a role model, and made them aware of the problems they might face while
pursuing the profession. The letters further revealed that pre-service teachers’ self-efficacy beliefs were decreased after watching the movies and they became concerned about the problems such as fear of unemployment, the conditions of the city/school they will work in and low salaries. According to the results of the study, education-themed movies had significant impact on pre-service teachers’ attitudes toward their profession, and candidates’ self-efficacy beliefs were increased.

Oruç and Sarıbudak (2015) conducted a descriptive study in order to determine the views of administrators and teachers on the impact of education-themed movies on instructional environments. The sample of the study consists of 471 principals, vice principals and teachers working in Istanbul. Prior to the study, 18 principals and vice principals, and 123 teachers were given a questionnaire and asked to recommend education-themed movies and rank them according to their importance. Based on the content of these movies, an attitude scale with 25 items on a 5-point Likert scale was developed. The scale was administered to 471 teachers, 85 vice principals and 38 principals employed in Istanbul. In the first step of the data analysis, the movies recommended by the educators were listed, and ten of them, which were seen and recommended by the majority of the participants, were identified. These movies were analyzed by the researchers in order to determine their influence and develop the data collection instrument. Also, to analyze the quantitative data, percentages, frequencies and chi-square test were used. According to the results of the study, educators with 0-5 years of experience prefer to watch education-themed movies more than others. Moreover, it was found that educators with 11-15 years of experience and the ones with more than 21 years of experience believe that education-themed movies help administrators gain a different management idea. According to the findings of the study, teachers and principals had more positive views regarding the use of education-themed movies as resources in the courses offered in education faculties than vice principals. Based on the findings of the study, no significant difference was found among educators’ views on whether education-themed movies motivate administrators and teachers with respect to their gender, profession or years of experience. Another finding of the study was that educators believe that education-
themed movies improve tolerance towards differences. In addition, it was seen that although gender had a significant impact on educators’ views, profession and years of experience did not have an influence. The findings of the study showed that educators have little experience with such movies and have confusion about which ones are categorized as education-themed movies. Despite these limitations, it was revealed that educators were positively influenced by the movies they have seen, and most of them believed that watching such movies was important since movies could positively influence individuals and the instructional environments. Finally, it was seen that educators cannot make enough use of education-themed movies in instructional environments/their classrooms. Therefore, the researchers stated that educators need resources that provide guidance on the use of education-themed movies.

According to a study conducted by Kontaş (2016), the education-themed movie called *Taare Zameen Par* had a statistically significant impact on teacher candidates’ attitudes towards teaching profession. In the article, the impact of this movie on pre-service teachers’ academic motivation and attitude towards teaching profession was analyzed. He utilized a quasi-experimental pre-test/post-test control group design and collected data from a sample of 89 pre-service teachers enrolled in Primary School Teaching at Adıyaman University. In the data collection, the researcher used Çetin’s (2006) 35-item scale called *Attitude Scale towards Teaching Profession*, and the adapted version of Vallerand et al.’s (1992) *Academic Motivation Scale* which consisted of 28 items. The researcher utilized inferential statistics in order to analyze the data. In an attempt to determine if there was a significant difference in the academic motivation and attitudes towards the profession scores of pre-service teachers after exposure to the education-themed movie, independent-samples t-test was utilized. Moreover, for each group, dependent-samples t-test was used in order to determine whether there was a difference between pre-service teachers’ academic motivation and attitude scores before and after the film. The researcher also used descriptive statistics such as means and standard deviations. The results of the study suggested that the education-themed movie had a significant impact on teacher
candidates’ intrinsic academic motivation and improving their attitudes towards the teaching profession. For the “love” dimension of the attitude scale towards teaching profession, the mean score of pre-service teachers in the experimental group was found to be statistically higher than that of the pre-service teachers in the control group. However, no significant difference was found between participants’ mean scores in the “value” or “harmony” dimensions. The study also revealed that for the attitude scale, post-test mean scores of pre-service teachers in the experimental group were statistically higher than the mean scores obtained in the pre-test showing that watching an education-themed movie impacts pre-service teachers’ attitudes towards the profession. Furthermore, it was found that while such a movie increased pre-service teachers’ intrinsic motivation, it also decreased their extrinsic motivation external regulation scores.

Although most of the studies concluded that using movies in educational settings had advantages, some researchers also focused on the disadvantages of the use of movies (Birkök, 2008; Gregory, 2007; Scull & Peltier, 2007). Stating that the impact of fictional narratives about education on real teachers and students were not frequently examined, Gregory (2007) discussed the impact of movies on education in his article. According to him, since fictional narratives about education usually consisted of stereotypes about students and teachers, they impact real classrooms. Furthermore, he stated that movies disturb both learners’ and educators’ perceptions on the purpose of education, and how education should be carried out. In addition to movies’ impact on individuals’ views on education, Gregory (2007) claimed that the content of such movies negatively impact learners’ perceptions on hard work, self-discipline and practice. Moreover, the movies often misrepresented teachers in such a way that they are shown either as nerds or egoists who do not care about the well-being of students. Gregory (2007) further asserted that cinema is not an appropriate medium for displaying the real dimensions of education such as cognitive development, problem solving and intellectual discourse since they are not perceived as entertaining or engaging, and they are difficult to be shown on screen. Since these dimensions are not represented in movies, a misleading perception about the
components of education arises. Another problem of such movies is that they do not display the relationship between students and teachers that might result in effective learning. Rather, they display a more intense and unreal relationships in order to present a better story.

Scull and Peltier (2007) examined popular films based on their interpretations of education, K-12 schooling and higher education. They suggested that movies have an influence on educators and education. According to the article, most of the education-themed movies picture teachers as super-humans who can suddenly change individuals’ lives, and this representation puts a great pressure on real teachers to be like them. Furthermore, it was stated that even if some of the movies may present inaccurate information about education, teachers and students, they give important clues about being a teacher in different contexts, such movies also help shaping perceptions of students, parents and policy-makers.

Birkök (2008) conducted a study to evaluate the impact of movies on education and socialization, and to determine how they are used. In this study, the researcher used content analysis and observation. According to Birkök (2008), movies are one of the most effective tools to convey knowledge since they trigger several senses at once, are able to convey massive amount of information and to communicate abstract messages more effectively than written materials. Although having several advantages, it was stated that movies also have a negative impact in that they cause a decrease in reading comprehension skill.

As stated before, several studies were conducted in order to analyze the content of education-themed movies (Choi, 2009) and their impact on pre-service teachers, educators, education and instructional environments (Birkök, 2008; Gregory, 2007; Kaşkaya et al., 2011; Kontaş, 2016; Oruç & Sarbudak, 2015; Scull & Peltier, 2007; Tan, 2006). To this end, both qualitative (Birkök, 2008; Choi, 2009; Gregory, 2007; Scull & Peltier, 2007; Tan, 2006) and quantitative methods (Kaşkaya et al., 2011; Kontaş, 2016; Oruç & Sarbudak, 2015) were used. Furthermore, it was seen that most of the empirical studies were conducted with first, second, third and fourth year
pre-service teachers and fresh/new graduates, and journals, letters, scales, questionnaires and structured interview forms were used in order to collect data. As for the analysis, these studies used content analysis, descriptive statistics i.e. means, standard deviations, percentages and frequencies, and inferential statistics i.e. one-way ANOVA, Wilcoxon signed ranks, Kruskal Wallis H test, Mann Whitney U test, chi-square test, independent-samples t-test and dependent-samples t-test.

The literature review on education-themed movies revealed that such movies are effective in that they impact pre-service teachers’ attitudes towards teaching profession, self-efficacy beliefs and motivations (Kaşkaya et al., 2011; Kontaş, 2016). The findings of previous studies are stated under three categories. First, the studies conducted by Kaşkaya et al. (2011) and Kontaş (2016) revealed that education-themed movies statistically impact pre-service teachers’ attitudes towards teaching profession and increase their self-efficacy beliefs. Second, based on the findings of the study conducted by Oruç and Sanbudak (2015), teachers and principals have more positive views towards using education-themed movies as resources in the courses offered in education faculties than vice principals. Moreover, it was seen that educators’ views on whether education-themed movies motivate administrators and teachers did not vary by gender, profession or years of experience. And, they believe that education-themed movies improve tolerance towards differences. Lastly, although movies are considered as effective tools for training teachers, illustrating the courses taught and transmitting knowledge and abstract messages (Birkök, 2008; O’Bannon & Goldenberg, 2008; Tan, 2006), in some of the studies, it was stated that they negatively impact individuals’ reading comprehension skill, and they damage teachers’ and learners’ views on education due to the stereotypical elements contained in the movies (Birkök, 2008; Gregory, 2007; Scull & Peltier, 2007; Vandermeersche et al., 2013). Moreover, Scull and Peltier (2007) asserted that the erroneous representations of teachers in the movie put an immense pressure on real teachers. However, it was seen that there were no studies investigating the impact of education-themed movies on pre-service teachers’ perceptions on effective teacher attributes.
2.2 Attitude

Attitude is one of the most significant psychological constructs. Since it is frequently studied in almost all fields, there are a variety of definitions each of which emphasizes different facets of attitude. Thurstone (1946) defined attitude as the intensity of affect towards a psychological object (e.g. a symbol, person or idea) which can be either positive or negative. Similarly, Aiken (1980, p.2) asserted that “attitudes may be conceptualized as learned predispositions to respond positively or negatively to certain objects, situations, concepts or persons”. He also declared that the construct has three components, namely cognitive, affective and performance. Fishbein and Ajzen (2010) stated that attitude is a latent disposition or tendency to respond to psychological objects with some degree of favorableness. Aiken’s (1980) and Fishbein and Ajzen’s (2010) definitions of attitude differs from that of Thurstone’s (1946) since they mentioned about the fact that attitudes are learned predispositions. Moreover, Krech and Crutchfield (1948) claimed that attitude is a composition of motivational, emotional, perceptual, and cognitive processes corresponding to some aspect of the individual’s world. Despite the fact that several definitions were suggested for attitude, the meaning and coverage of the construct do not vary severely since each definition points out the fact that attitude is the tendency to respond to psychological objects, and that attitude can be either positive or negative.

Eagly and Chaiken (1993) stated that it is difficult to verify or falsify attitudes based on external and objective criteria. However, there are several means such as observation, classical and operant conditioning and cognitive learning that help developing or changing attitudes. Kağıtçibaşı (1999) and Johnston (2001) argued that direct experience, reinforcement, imitation and social learning have an important role in the development of attitudes. In a similar way, Morgan (1956/1995) claimed that a youngster’s attitudes are shaped based on the attitudes of his/her parents, and as the individual grows up, they start to be influenced by other social factors such as peers and information gathered from the external world including media and education.
According to Bandura (1977) and Ruiz (1999), observation is important in that behaviors, beliefs, values and attitudes can be acquired through observing others. Since movies represent stories from real life, they provide an opportunity for individuals to observe the experiences of others, and an influential way for transmitting cultural values, attitudes and behaviors (Altan, 2016). Moreover, the use of humanities (e.g. literature, theater and cinema) contributes to promoting reflection, dealing with attitudes and emotions, and fostering moral and cultural developments of individuals since attitudes can be transferred through them (Available Light Advisory, 2012; Birkök, 2008; Blasco et al., 2015).

2.2.1 Attitudes towards Teaching Profession

Petty and Cacioppo (1996) stated that early research studies were suggesting that attitudes did not predict behaviors. However, more current studies, especially the ones conducted by Fishbein and Ajzen proved the relationship between these two constructs (as cited in Petty & Cacioppo, 1996), and that behavioral patterns can be predicted by attitudes (Ajzen & Fishbein, 2005). Similarly, Bhargava and Pathy (2014) stated that attitudes influence people’s responses to stimuli. Considering their relationship with behaviors, attitude of pre-service and inservice teachers towards teaching profession is also important since their attitude will be a determinant factor for their behaviors in the profession. As Richardson (1996) explained, attitudes and beliefs are important in that they help comprehending classroom practices and facilitating teacher education which help developing pre-service and inservice teachers’ thinking and practices. Also, it was stated that beliefs and attitudes have a significant role in teacher education since they have an influence on how individuals process information, teach and react to change. Moreover, according to Bhargava and Pathy (2014), attitude towards the profession impacts teachers’ proficiency, and positive attitudes towards the profession helps teachers build a learner friendly environment.
2.2.2 Research Studies on Attitudes towards Teaching Profession

Attitude towards teaching profession is a commonly studied construct in educational research. Bhargava and Pathy (2014) stated that attitudes towards teaching profession is influenced by many factors such as gender, age, environment, society, culture, schools and beliefs. And, researchers have investigated both inservice and pre-service teachers’ attitudes towards the profession and searched the impact of several factors such as gender, major and grade level on their attitudes for decades. In the following paragraphs, research studies conducted to investigate pre-service teachers’ attitudes towards teaching profession in Turkey and other countries are provided.

Tanrıöğen (1997) investigated attitudes of pre-service teachers enrolled in Dokuz Eylül University, Buca Education Faculty towards teaching profession. In his study, the researcher further aimed to determine the impact of gender, grade level, major, and preference order of the department in the university placement process on their attitudes. The sample included first, second, third and fourth graders from fifteen teaching programs in Buca Education Faculty, and the sample size was 397. In order to determine pre-service teachers’ attitudes towards teaching profession, a Likert type instrument consisting of 52 items was developed and used by the researcher. The data collected through the instrument was analyzed by using inferential statistics. To investigate the impact of gender on pre-service teachers’ attitudes, independent-samples t-test was used. Furthermore, the impacts of grade, major and preference order of the department were examined by utilizing one-way ANOVA. The study showed that female pre-service teachers’ attitude scores were statistically higher than that of males. Moreover, it was found that candidates’ attitudes were positively related with their preference order. The post-hoc test results showed that pre-service teachers who have placed the department in their first to fifth choices had statistically more positive attitudes than the ones who have placed the department in their sixth to tenth choices. However, it was found that major and grade were not influencing pre-service teachers’ attitudes towards teaching profession.
Çapa and Çil (2000) conducted a study in order to examine the impact of various variables on pre-service teachers’ attitudes towards teaching profession. The sample of the study consisted of 340 pre-service teachers enrolled in Biology Education, Physics Education, English Language Teaching, Chemistry Education, Mathematics Education, and Instructional Technology teacher training programs at Middle East Technical University. Data were collected via a 5-point likert type “Attitudes towards Teaching Profession” scale developed by the researchers. The scale consisted of 13 positive and 19 negative items on three dimensions: loving the teaching profession, self-confidence in teaching profession and respect for the teaching profession. Moreover, demographic information of the participants was collected by eight open and close-ended items on the same data collection instrument. The analysis of the data was carried out by utilizing independent samples t-test, one-way ANOVA and correlation analysis. The t-test results showed that attitude scores of female and male pre-service teachers did not differ statistically from each other. However, it was found that in the loving the teaching profession and respect for the teaching profession dimensions, female pre-service teachers had statistically more positive attitudes. On the other hand, in the self-confidence in teaching profession dimension, male pre-service teachers were found to have more positive attitude scores. One-way ANOVA test showed that grade level had a statistically significant impact of pre-service teachers’ attitudes towards the profession. Post-hoc comparisons carried out by Tukey test showed that while 3rd year pre-service teachers had statistically more positive attitudes than 2nd years, there were no statistically significant difference between 3rd year and 4th year pre-service teachers, and between 2nd and 4th year pre-service teachers. Moreover, pre-service teachers’ attitudes were examined based on their order of preference of these programs in the university entrance examination process. The correlation analysis revealed that there was no relationship between attitude scores and the preference order of the major.

Kaplan and İpek (2002) conducted a descriptive study in order to investigate the impact of faculty, grade level and gender on pre-service mathematics teachers’
attitudes towards teaching profession. The sample of the study consisted of 154 first and fourth graders, who were studying at Kazım Karabekir Education Faculty and Science and Art Faculty at Atatürk University. In order to collect data, the attitude scale developed by Erkuş, Şanlı, Bağlı and Güven (2000) was utilized. Making use of inferential statistics, the researchers conducted independent-samples t-test in order to assess whether the pre-service teachers’ attitudes towards the profession differ based on gender, faculty and grade. Based on the analysis, the attitudes of pre-service teachers enrolled in Education Faculty were statistically more positive than the ones enrolled in Science and Art Faculty. Similarly, fourth graders were found to have statistically more positive attitudes towards teaching profession than the ones enrolled in first grade. However, the findings of the study revealed that gender did not have a significant impact on pre-service teachers’ attitudes.

Sağlam (2008) aimed to determine pre-service music teachers attitudes towards teaching profession, and conducted a descriptive study. She also investigated the influence that gender, grade, the type of high school pre-service teachers graduated from (i.e. general high school and vocational high school), and the reason for choosing the profession have on pre-service teachers’ attitudes towards teaching profession. The sample of the study was 110 pre-service teachers studying music teaching at Harran University, and students from all grade levels from 1 to 4 were included in the sample. In this study, Tanrıöğen’s (1997) attitudes towards teaching profession scale was utilized. Data were analyzed through descriptive and inferential statistics. First, the researcher calculated arithmetic means, minimum and maximum values, and standard deviations. Then, she used independent-samples t-tests in order to assess the impact of gender and type of high school the participants attended on pre-service music teachers’ attitudes. Moreover, one-way ANOVA was conducted to investigate the impacts of grade level and reason for choosing the teaching profession on participants’ attitudes. Based on the results, pre-service teachers had positive attitudes towards teaching profession, and gender had a statistically significant impact on their attitudes in favor of female candidates. Another finding of the study was that pre-service teachers’ attitudes towards the profession differ
according to the grade which the participants were enrolled in. While first, third and fourth graders had more positive attitudes towards the profession, pre-service teachers enrolled in second grade tend to have lower attitude scores. Similarly, it was seen that pre-service teachers who chose the profession since they loved it had statistically more positive attitudes than the ones who preferred the profession in order to receive an undergraduate degree and who preferred the profession based on other reasons. However, the type of high school pre-service teachers graduated from did not have a statistically significant impact on their attitudes.

Another descriptive study was conducted by Bozdoğan et al. (2007) to investigate the impacts of gender, major, type of high school pre-service teachers graduated from, the reason behind choosing the program and the type of settlement pre-service teachers live on their attitudes towards teaching profession. In this study, the researchers collected data from 181 students enrolled in Elementary Science Education and Social Science Education programs at Ahi Evran University. The data were collected by using the attitude towards teaching profession scale developed by Aşkar and Erden (1987). The scale consisted of 10 items on a 5-point Likert type scale. In order to analyze the data, both descriptive and inferential statistics were used. First, the researchers calculated frequencies, percentages and means to describe the sample. Then, independent-samples t-test was utilized to reveal the impact of gender and major on pre-service teachers’ attitudes towards teaching profession. Finally, the researchers used one-way ANOVA to assess the influence of the other variables on their attitudes. According to the results, gender had a statistically significant impact on attitude towards teaching profession in that attitude scores of female students were higher than males. Another finding was that the reason behind choosing the profession had an impact on teacher candidates’ attitudes towards teaching profession. Moreover, it was found that the participants who preferred teaching profession willingly had more positive attitudes than the ones who preferred the profession only to enroll in an undergraduate degree program. However, it was found that the type of high school pre-service teachers attended, their major, and the type of settlement they live did not have an effect on their attitudes.
Güneyli and Aslan (2009) aimed to determine the impact of gender, grade level, socio-economic status, the reasons why pre-service teachers preferred the teaching profession, the possible problems they may face while performing the profession and the sufficiency of the education they received on pre-service Turkish teachers’ attitudes towards the teaching profession. In an attempt to identify the impacts of these variables, the researchers conducted a study utilizing mixed method research design and collected data from 117 pre-service teachers enrolled in first, second, third and fourth grades of Turkish Language Teaching program at Near East University in Turkish Republic of Northern Cyprus (TRNC). In this study, Çetin’s (2006) attitude towards teaching profession scale and four open-ended questions were used in order to gather data from the pre-service teachers. The researchers made use of arithmetic means, standard deviations and percentages, and conducted independent-samples t-test in order to analyze the data. Moreover, content analysis was used to summarize and interpret the qualitative data, and frequency regarding pre-service teachers’ responses to the open-ended questions were reported.

According to the results of the study, while gender had a significant impact on attitudes towards teaching profession in favor of females, socio-economic status did not have an impact on candidates’ attitudes. Similarly, it was seen that there were not significant differences between the attitudes of pre-service teachers enrolled in first and second grade, and the ones enrolled in third and fourth grade. In addition, the analysis of the qualitative data showed that most of the pre-service teachers preferred the program they were enrolled since they enjoy the teaching profession, like Turkish language, and were influenced by their families or teachers. Also, it was found that most of them consider the education they received as inadequate, and they were concerned about the public personnel selection examination (KPSS), and not being appointed as teachers when they graduate.

Üstüner et al. (2009) utilized survey design study in order to understand the impact of gender, major, grade level, type of the schooling (i.e. day schooling and night schooling), preference order of the program in the university placement process, socio-economic status of the neighborhood and family they live in, and reasons why
they chose the profession (i.e. intrinsic reasons and extrinsic reasons) on pre-service teachers’ attitudes towards teaching profession. The sample of the study consisted of 593 first, second, third and fourth year pre-service teachers enrolled in 12 programs at İnönü University, and data were collected by administering the attitude towards teaching profession scale developed by Üstüner (2006). The researchers used both descriptive statistics such as means and percentages, and inferential statistics. In order to investigate the impact of gender, type of schooling and reason to prefer the profession, independent-samples t-test was utilized. Moreover, to assess the influence of major, order of preference, socio-economic status and grade, the researchers conducted one-way ANOVA. Based on the results of the study, gender, major, intrinsic motivations towards the profession of teaching, the preference order of the program and the socio-economic status of their neighborhood and their family had an impact on pre-service teachers’ attitudes towards teaching profession. The findings of the study indicated that female pre-service teachers had more positive attitudes towards the profession than males. It was also seen that the major that pre-service teachers were enrolled in had a significant impact on their attitudes towards the profession. Among the candidates, the ones enrolled in Physical Education and Sports Teaching had the highest attitude scores while the ones enrolled in Computer Education and Instructional Technologies program had statistically the lowest. Moreover, it was found that pre-service teachers enrolled in Social Studies Teaching, Physical Education and Sports Teaching, and Turkish Teaching had statistically more positive attitudes than the ones enrolled in Elementary Science Education. Also, it was seen that pre-service teachers enrolled in Physical Education and Sports Teaching had statistically more positive attitudes than the ones enrolled in Classroom Teaching and Art Teaching. According to the findings, the preference order of the program also affected pre-service teachers’ attitudes towards the profession. The results indicated that pre-service teachers who listed the profession as their first choice had statistically more positive attitudes than the ones who listed it as their fourth or fifth choices. Similarly, the prospective teachers who listed the profession as their sixth or later preferences were found to have statistically more positive attitudes towards the profession than the ones who listed the profession as their
fourth choice. Furthermore, it was found that socio-economic status had an impact on pre-service teachers’ attitudes towards the profession in that the candidates with middle socio-economical status had more positive attitudes towards the profession than the ones who had lower or higher socio-economical status. Another finding of the study showed that the type of the schooling had an impact on pre-service teachers’ attitudes in that the ones enrolled in night school had more positive attitudes towards the profession than the ones enrolled in day school. Moreover, the ones who preferred the profession based on intrinsic reasons had more positive attitudes than the ones who preferred the profession based on extrinsic reasons. However, the study showed that grade level did not have an impact on pre-service teachers’ attitudes towards the profession.

Aksoy (2010) aimed to examine attitudes of 4th year pre-service teachers studying at Tokat Gaziosmanpaşa University. In order to collect data, Üstüner’s (2006) Attitudes towards Teaching Profession scale and a personal information form which aims to gather information such as participants’ gender, major and grade level was used. Data were collected from 192 pre-service teachers enrolled in Classroom Teaching, Social Sciences Teaching, Arts Education, Music Teaching, Elementary Science Education, Psychological Counseling and Guidance, Computer and Instructional Technologies teacher training programs. To analyze the data, descriptive (i.e. frequency and percentage) and inferential statistics (i.e. independent samples t-test, Kruskal Wallis H-Test, and Mann Whitney U-Test) were used. The analysis revealed that pre-service teachers’ attitudes differ statistically based on their gender, and female pre-service teachers were found to have more positive attitudes than males. Moreover, the analysis showed that pre-service teachers’ attitudes differ statistically based on voluntary selection of the major in such a way that the ones who chose their majors willingly have more positive attitudes than others. Similarly, it was seen that the ones who want to be a teacher after graduation have statistically more positive attitudes towards the profession than the ones who do not want to. The analysis also revealed that major has an impact on the attitudes of pre-service teachers towards teaching profession. Moreover, the findings indicated that although pre-service
teachers enrolled in Classroom Teaching had the most positive attitudes towards the profession, the ones enrolled in Computer Education and Instructional Technology had the lowest attitude scores. However, no significant difference was found on pre-service teachers’ attitudes towards the profession based on the type of high school they graduated from.

Özder et al. (2010) investigated the correlation between pre-service teachers’ attitudes towards teaching profession and their academic achievement. And, they attempted to identify how pre-service teachers’ attitudes and their academic achievement change based on their gender, major, grade level and motives for choosing teaching profession. The sample of this study consisted of 102 pre-service teachers studying Early Childhood Education and 106 pre-service teachers studying Primary School Teaching at Atatürk Teacher Training Academy in TRNC. In order to determine pre-service teachers’ attitudes towards teaching profession, the instrument developed by Erkuş et al. (2000) was used. While analyzing the data, the researchers used both descriptive and inferential statistics. First, they calculated arithmetic means, percentages and frequencies. Then, they calculated Pearson’s product moment correlation coefficient to determine if there was a relationship between pre-service teachers’ attitudes towards teaching profession and their academic achievement scores. In order to investigate the impacts of gender and major on pre-service teachers’ attitudes and academic achievement scores, independent-samples t-test was conducted. Moreover, the impacts of grade and motives for choosing teaching profession were assessed by utilizing one-way ANOVA. Based on the analysis of the data, pre-service teachers’ attitude scores and academic achievement scores were found to be high. But, there was not a significant relationship between pre-service teachers’ attitude scores and their academic achievement scores. Also, it was seen that while gender had an impact on academic achievement score variable, it did not have a significant impact on pre-service teachers’ attitudes towards the profession. The analysis further showed that major had an influence on pre-service teachers’ attitudes in that the attitude scores of teacher candidates enrolled in Early Childhood Education were statistically higher than the ones enrolled in Classroom
Teaching. However, there was not a significant impact of major on pre-service teachers’ academic achievement scores. Another finding of the study was that pre-service teachers’ motives for choosing teaching profession had an influence on their attitude scores, but did not have an influence on pre-service teachers’ academic achievement scores. The attitude scores of pre-service teachers who chose teaching profession because of external reasons such as the impact of family and the job guarantee were statistically lower than the ones who chose this profession due to their willingness to become a teacher. Although, it was found that the attitude scores of pre-service teachers were the highest in the fourth grade, a significant difference was not found among the attitude scores of pre-service teachers enrolled in different grades. On the other hand, it was seen that grade had an influence on pre-service teachers’ achievement scores in that academic achievement scores of pre-service teachers enrolled in 3rd and 4th grades were statistically higher than the ones enrolled in 1st and 2nd grades.

Another study was carried out by Hacıömeroğlu and Şahin-Taşkın (2010) in order to examine the attitudes of pre-service teachers enrolled in Elementary Science Education and Secondary School Science and Mathematics Education, to determine the relationship between pre-service teachers’ attitudes towards teaching profession and the reasons why they chose this profession and to investigate the impact of gender and major on their attitudes. For that reason, both qualitative and quantitative research methods were utilized in their study. While the instrument developed by Erkuş et al. (2000) was used to determine pre-service teachers’ attitudes towards teaching profession, open-ended questions were used in order to explain the relationship between their attitudes and the reasons why they chose this profession. The sample of the study consisted of 110 pre-service teachers. Among the participants, 50 of them were enrolled in Elementary Science Education, 22 of them were enrolled in Physics Education, 15 of them were enrolled in Biology Education and 23 of them were enrolled in Mathematics Education. In order to determine whether the pre-service teachers’ attitudes differ based on gender, independent-samples t-test was used. Moreover, the impacts of other variables were investigated.
by using one-way ANOVA. For the qualitative data, content analysis was used, and pre-service teachers’ responses were investigated under themes. According to the results of the study, gender and major did not have a statistically significant impact on teacher candidates’ attitudes. The results also showed that most of the pre-service teachers studying Elementary Science Education chose this profession because of the scores they received in university entrance examination. On the other hand, the results of the study revealed that most of the pre-service teachers enrolled in Secondary School Science and Mathematics Education chose the profession since they love the teaching profession, and they chose the profession more deliberatively than the ones enrolled in Elementary Science Education.

Başbay et al. (2009) used descriptive and longitudinal research designs in an attempt to investigate the impact of Secondary School Teaching Non-thesis Master of Art programs implemented at Ege University on pre-service teachers’ attitudes towards teaching profession and the impact of gender and department on their attitudes. The researchers developed an instrument which consisted of 20 items on a 5-point Likert scale to identify pre-service teachers’ attitudes towards teaching profession, and this instrument was administered to 158 pre-service teachers four times in different semesters. In order to analyze the data, descriptive statistics and inferential statistics were used. Descriptive statistics such as arithmetic means, minimum and maximum values and standard deviations were calculated to report pre-service teachers’ attitude scores in different semesters. Also, one-way repeated-measures MANOVA was utilized in an attempt to determine whether pre-service teachers’ attitudes changed based on semester, and to investigate the joint impact of gender and semester, and semester and major. According to the findings of the study, pre-service teachers have positive attitudes towards teaching profession, and neither semester nor gender have a significant impact on their attitudes. Moreover, the results of the study indicated that there was no joint impact of gender and semester, and department and semester on pre-service teachers’ attitudes towards the profession.
Akbulut and Karakuş (2011) conducted a study utilizing survey design in order to determine pre-service teachers’ attitudes towards teaching profession. The sample of the study consisted of 239 fourth and fifth year pre-service teachers enrolled in the Non-thesis Graduate Degree in Secondary School Science and Mathematics Education program with a major in Physics, Biology, Chemistry or Mathematics Education. In order to collect data, the researchers used the 33-item instrument called “Teaching Professional Attitude Scale” which was developed by Özgür (1994). Data analysis was handled by utilizing both descriptive i.e. mean, standard deviation and standard error and inferential statistics i.e. independent samples t-test and one-way ANOVA. The descriptive statistics revealed that pre-service teachers enrolled in Secondary Science and Mathematics Education programs generally possess positive attitudes towards the profession and while pre-service teachers enrolled in Biology Education have the most positive attitudes, the ones enrolled in chemistry have the lowest, with a mean score of 3.96 and 3.72 respectively. The independent samples t-test which was carried out to compare fourth and fifth year students’ attitudes towards teaching profession revealed that pre-service teachers’ attitudes depend on the grade level they attend, and the pre-service teachers enrolled in 4th grade were found to have statistically more positive attitudes than the ones enrolled in 5th grade. A one-way ANOVA was conducted to investigate whether fourth-year pre-service teachers’ attitudes change based on their majors. The analysis revealed that there was no statistically significant difference among the attitudes of fourth-year pre-service teachers enrolled in different teaching programs towards the profession. However, for the fifth graders, the findings of one-way ANOVA showed that major was found to be effective on pre-service teachers’ attitudes towards teaching profession. The post-hoc test carried out by Tukey HSD test showed that a statistically significant difference was observed between pre-service teachers enrolled in biology and physics and chemistry and biology in such a way that the pre-service teachers studying biology possess statistically more positive attitudes than the ones studying physics and chemistry. Moreover, there was not a statistically significant difference between the attitudes of pre-service teachers enrolled in physics and chemistry, and between the ones enrolled in mathematics and other majors.
Pektaş and Kamer (2011) aimed to investigate the attitudes of pre-service elementary science teachers towards teaching profession and conducted a research study by utilizing survey design. The sample of the study consisted of 382 pre-service teachers studying Elementary Science Education at Gazi University, Kastamonu University and Ahi Evran University. In order to collect data, the 58-item scale which was developed by Akkuzu and Akçay (2008) was utilized. The analysis of the data was carried out by utilizing inferential statistics i.e. independent samples t-test and one-way ANOVA. The findings of the independent samples t-test conducted to reveal the impact of gender on the attitudes possessed by pre-service teachers towards teaching profession showed that female teacher candidates have statistically more positive attitudes than male candidates. The researchers carried out a series of one-way ANOVAs in order to determine the impact of the type of high school pre-service teachers graduated, the university and grade level they enrolled in, and education status of parents on their attitudes towards teaching profession. The analysis revealed that the type of high school pre-service teachers graduated from had a significant impact on their attitudes towards the profession in such a way that teacher candidates who graduated from Anatolian Teacher High Schools had statistically more positive attitudes than the ones who graduated from Anatolian High Schools. Similarly, the candidates who studied at general high schools had statistically more positive attitudes than the ones studied at Anatolian High Schools. However, the university that pre-service teachers were attending had no impact on their attitudes towards the profession. The analysis further showed that the education status of pre-service teachers’ mothers had an impact on their attitudes towards the profession in such a way that the pre-service teachers whose mothers were primary/elementary school graduates had statistically more positive attitudes towards teaching profession than the ones whose mothers were university graduates. Similarly, the fathers’ education status was found to have an impact on the pre-service teachers’ attitudes towards the profession in such a way that the pre-service teachers whose fathers were secondary school graduates had statistically more positive attitudes towards teaching profession than the ones whose fathers were university graduates. The one-way ANOVA resulted in a statistically significant difference in pre-service teachers’ attitudes based
on the grade level they were enrolled in. According to the findings of the analysis, pre-service teachers enrolled in first and second grades of their programs had more positive attitudes than the ones enrolled in fourth grade.

Tok (2012) conducted a descriptive study to determine pre-service teachers’ attitudes towards teaching profession, and the impact of gender, type of program (i.e. evening education and daytime education), the type of high school candidates attended, the order of preference for teaching profession in the university entrance exam, voluntary preference for the profession, the will to perform the profession, finding their efforts sufficient to improve themselves for the profession, satisfaction with the university and faculty administration, and opinions on educational policies in Turkey and the instructors’ competence on their attitudes. The data were collected from a sample of 177 fourth graders studying Classroom Teaching at Pamukkale University through an intrument which consisted of three parts. In the first part of the instrument, candidates’ demographic information was asked. The second part of the instrument consisted of 10 items on a 5-point scale which was developed by Aşkar and Erden (1987) in order to determine attitudes towards teaching profession. The last part of the scale consisted of other variables whose impacts on pre-service teachers’ attitudes towards teaching profession were examined such as the desire to perform the profession and candidates’ opinions on the university and faculty administrations. The researcher made use of descriptive statistics (i.e. arithmetic means and standard deviations), and inferential statistics (i.e. independent-samples t-test and one-way ANOVA) to analyze the data. According to the finding of the study, gender, type of program, satisfaction with the educational policies and the faculty administrations, the reason for choosing the profession (voluntary preference for the classroom teaching program), type of high school pre-service teachers graduated from and the order of the preference for the program in the university exam did not have a significant impact on pre-service teachers’ attitudes towards the profession. However, it was found that the desire to perform the profession has a significant impact on candidates’ attitudes towards teaching profession. Moreover, significant difference was found between the attitudes of pre-service teachers who
were satisfied with the university administration and the ones who were not satisfied with the university administrations in favor of the former one. Another finding of the study showed that the attitude scores of pre-service teachers who perceived the instructors as competent were statistically higher than the ones who perceived the instructors as incompetent. Furthermore, significant difference was found between the attitudes of candidates who found their efforts sufficient and who found their efforts insufficient in favor of the former.

Fadlelmula (2013) conducted a study in an attempt to investigate attitudes of pre-service elementary mathematics teachers towards teaching profession, and the impact of gender and grade on pre-service teachers’ attitudes. The data were collected from 162 first, second, third and fourth year pre-service teachers studying at Mehmet Akif Ersoy University by utilizing the Attitude Scale towards the Profession of Teaching developed by Üstüner (2006). The instrument consisted of 34 items on a 5-point likert scale. Descriptive statistics i.e. mean, standard deviation, and frequency, and inferential statistics i.e. two-way ANOVA were utilized in order to analyze the data. The descriptive statistics showed that pre-service elementary mathematics teachers hold positive attitudes towards their profession. Moreover, the two-way ANOVA revealed that the interaction of gender and grade level was not significant. However, it was found that females have statistically more positive attitudes than males. It was also seen that grade level has an impact on pre-service teachers’ attitudes towards the profession. Post-hoc comparisons carried out by Tukey Honestly Significant Difference (HSD) test showed that 1st year students have statistically more positive attitudes than 3rd and 4th year students, and 2nd year students have statistically more positive attitudes than 3rd and 4th year students.

Kesen and Polat (2014) carried out a study utilizing survey design in order to determine pre-service teachers’ attitudes towards teaching profession and the impact of major and gender on their attitudes. In this study, data were collected via Üstüner’s (2006) attitudes towards teaching profession scale and a questionnaire aiming to obtain information about the participants’ gender and major. The sample of
the study consisted of 215 fourth graders enrolled in Early Childhood Education, Turkish Language Teaching, Elementary Mathematics Education, Elementary Science Education, Classroom Teaching and Religion Teaching programs at Muş Alparslan University. In order to analyze the data, the researchers used means, minimum and maximum values, standard deviations, frequencies and percentages. Moreover, they conducted independent-samples Mann-Whitney U Test and Kruskal-Wallis H Test so as to investigate the impact of gender and major on pre-service teachers’ attitudes, respectively. Based on the findings of the study, pre-service teachers had positive attitudes towards teaching profession, and gender did not have an impact on their attitudes. When the impact of major on pre-service teachers’ attitudes was examined, it was found that it had a significant impact on their attitude scores in that pre-service teachers enrolled in Early Childhood Education had more positive attitudes than the ones enrolled in other programs.

Taşdemir (2014) conducted a research study utilizing a descriptive survey design in order to determine pre-service elementary mathematics teachers’ attitudes towards teaching profession and investigated the impact of gender, grade level, the type of high school pre-service teachers graduated from and their parents’ education level on their attitudes. In this study, two instruments were used in order to collect data. The first one was the attitudes towards teaching profession scale developed by Erkuş et al. (2000), and the second one was a personal information form developed by the researcher to collect information about students’ gender and grade level, the type of high school they attended and their parents’ education level. The sample of the study consisted of first, second, third and fourth grade pre-service teachers studying Elementary Mathematics Education at Muş Alparslan University, and the sample size was 158. In an attempt to analyze the data, arithmetic means and standard deviations were calculated, and independent-samples t-test and one-way ANOVA were utilized. The analysis of the data revealed that pre-service teachers had positive attitudes towards their profession. However, it was found that gender, grade, the type of high school the candidates graduated from and their parents’ education level did not have a significant impact on their attitudes towards teaching profession.
In their study, Bhargava and Pathy (2014) investigated the impact of gender and branch of study on pre-service teachers’ attitudes towards teaching profession. Having used stratified sampling, they reached to a sample of 96 pre-service teachers studying in Bachelor’s of Education programmes in Ranchi, Jharkhand. The sample included pre-service teachers from different categories in terms of gender, ethnicity (tribal and non-tribal) and branch (science stream and social science stream). In order to determine pre-service teachers’ attitudes, the teacher attitude inventory which was developed by Ahluwalia was used. The inventory included 90 likert type items under six subscales: attitude towards teaching profession, classroom teaching, student-centred practices, instructional process, students and teachers. In the data analysis, independent-samples t-test was utilized. The study revealed that the branch of study did not have a statistically significant impact on non-tribal pre-service teachers’ attitudes towards teaching profession. Based on the analysis, significant difference was found in favor of tribal female pre-service teachers in both branches of study. Moreover, while the attitudes of tribal female students studying science stream were more favorable than attitudes of non-tribal females, there was not a significant difference between the attitudes of tribal and non-tribal female students studying social science stream. The study also showed that there was not a significant difference between the attitudes of tribal and non-tribal male students neither in the science stream nor in the social science stream. According to the findings of the study, tribal female students studying science stream had more positive attitudes than that of tribal male students in the same field. Similarly, tribal females studying social science stream had more positive attitudes than that of tribal males in this field. Furthermore, the attitudes of tribal female students studying science stream were more positive than that of non-tribal females in this field. However, there was no difference between the attitudes of non-tribal students studying science stream and social science stream. In addition, no significant difference was found between tribal and non-tribal male students studying either science stream or social science stream and between the attitudes of tribal and non-tribal female students studying social science stream.
Eret-Orhan and Ok (2014) conducted a study in order to examine the entry characteristics of pre-service teachers enrolled in first grade, to determine their attitudes towards teaching profession, and to assess the factors impacting their attitudes. To this end, the researchers used survey design and collected data from 312 pre-service teachers enrolled in different teacher training programs in a university in Turkey. In an attempt to collect data, the researchers developed an instrument which had three parts, and the data were analyzed by making use of both descriptive and inferential statistics. First, the researchers calculated frequencies, percentages, means, and standard deviations regarding data, and then conducted independent-samples t-test, one-way ANOVA, and Simple Linear Regression. The findings indicated that gender had an impact on attitudes of pre-service teachers towards teaching profession in that female pre-service teachers had statistically more positive attitudes than males. Similarly, the findings showed that major was an influential factor in pre-service teachers’ attitudes. It was seen that attitudes of pre-service teachers enrolled in English Language Teaching (ELT) were statistically more positive than the ones enrolled in CEIT. Another finding of the study was that the will to become a teacher influenced candidates’ attitudes. Moreover, it was found that the ones who were satisfied with their major and the conditions of the country had statistically more positive attitudes than others. Furthermore, pre-service teachers’ attitudes towards the profession was positively related to their general life satisfaction. However, the study revealed that education level of parents, type of high school the participants graduated from, and having a teacher in the family did not impact pre-service teachers’ attitudes.

A longitudinal study was conducted by Uyanik (2017) in an attempt to identify the attitudes of pre-service teachers enrolled in Classroom Teaching program towards teaching profession, and data were collected from students enrolled in all grade levels from first to fourth. The researcher also considered the impact of gender, grade level, preference order of the program in the university placement process and academic achievement levels on candidates’ attitudes. The sample of the study consisted of 110 pre-service teachers enrolled in Classroom Teaching at Kastamonu
University. In order to determine pre-service teachers’ attitudes towards teaching profession, Üstüner’s (2006) instrument, which consisted of 34 items on a 5-point likert scale, was utilized. The data analysis was carried out in three steps. First, the researcher used independent-samples t-test to examine whether the participants’ attitudes differ statistically based on their gender. Then, he used one-way repeated-measures ANOVA in order to investigate whether attitudes of pre-service teachers changed based on grade level. Finally, Pearson’s correlation coefficient was calculated to determine the relationship between attitude and achievement levels of pre-service teachers based on their grade level. The results revealed that gender did not have a significant impact on second and third graders’ attitudes towards teaching profession. However, for the first and fourth graders, gender was found to have a statistically significant impact on pre-service teachers’ attitudes towards teaching profession in favor of females. Moreover, it was found that grade level had a statistically significant impact on pre-service teachers’ attitudes towards teaching profession in such a way that their attitudes were statistically more positive in fourth year. Similarly, in the third grade, pre-service teachers’ attitudes towards the profession were statistically more significant than in the first and second year. The independent-samples t-test revealed that in the first grade, pre-service teachers who have enrolled in the program willingly have more positive attitudes towards the profession. However, it was seen that preference order of the program did not have an impact on pre-service teachers’ attitudes towards teaching profession in other grade levels. Finally, the researcher found that there was a statistically significant relationship between pre-service teachers’ attitudes towards the profession and their academic achievement levels in each grade level.

As noted earlier, many studies were conducted in an attempt to investigate pre-service teachers’ attitudes towards teaching profession and to identify the impact of gender, ethnicity, grade level, semester, faculty, university, type of the schooling, major, the type of high school pre-service teachers graduated from, preference order of the program in the university placement process, the reason for choosing the profession, the will to perform the profession, socio-economic status of the
neighborhood and family they live in, parents’ education level, type of settlement pre-service teachers live, possible obstacles they may encounter with in the profession, sufficiency of the education they receive, level of academic achievement, finding their efforts proficient for the profession, satisfaction with the university and faculty administration, and opinions on educational policies in Turkey and the instructors’ competence. Furthermore, it was seen that qualitative, quantitative and mixed method studies employing survey research design and longitudinal research design were conducted with first, second, third and fourth year pre-service teachers enrolled in different teacher training programs at Ahi Evran University, Atatürk Teacher Training Academy in Turkish Republic of Northern Cyprus (TRNC), Buca Education Faculty, Ege University, Gazi University, Harran University, İnönü University, Kazım Karabekir Education Faculty, Kastamonu University, Mehmet Akif Ersoy University, Middle East Technical University, Muş Alparslan University, Near East University in TRNC, Pamukkale University, Science and Art Faculty at Atatürk University, and Tokat Gaziosmanpaşa University. Moreover, scales, questionnaires, personal information forms and open-ended questions were used while collecting data. Content analysis, descriptive statistics such as frequencies, percentages, means, minimum and maximum values, and standard deviations, and inferential statistics such as independent-samples t-test, one-way ANOVA, one-way repeated-measures ANOVA, two-way ANOVA, one-way repeated-measures MANOVA, independent-samples Mann-Whitney U Test, Kruskal-Wallis H Test, simple linear regression, Pearson’s product moment correlation coefficient were utilized in order to analyze the data.

The results of the previous studies are organized under eight categories. First of all, according to some of the studies, female pre-service teachers had more positive attitudes towards the profession (Aksoy, 2010; Bozdoğan et al., 2007; Eret-Orhan and Ok, 2014; Fadilemula, 2013; Güneyli & Aslan, 2009; Pektaş & Kamer, 2011; Sağlam, 2008; Tanrıöğren, 1997; Tezci & Terzi, 2010; Üstüner et al., 2009). However, other studies showed that gender did not have an impact on pre-service teachers’ attitudes towards teaching profession (Başbay et al., 2009; Çapa & Çil,
Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012). Second, while some researchers found that major did not have an influence on pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Taşdemir, 2014; Tok, 2012).
(2008), Aksoy (2010), Tok (2012), Taşdemir (2014), and Eret-Orhan and Ok (2014) showed that it did not have an impact on candidates’ attitudes.

2.3 Effective Teacher

Considering the role and importance of teachers in individuals’s lives and societies’ development, the definition of a good/effective teacher has always been a topic of discussion. Therefore, there are many definitions regarding effective teachers. One of these definitions was made by Raspberry, and his definition of a good teacher expresses that such a teacher cares about students and supports them, is enthusiastic about his/her job and proficient in his/her field of study. Moreover, such a teacher is able to establish positive relationships with others (Raspberry, 1993). Another definition focuses more on the teacher’s impact on student achievement and states that an effective teacher is a person who is able to help students learn (Cruickshank & Haefele, 2001). Similarly, according to Walker (2008), effective teacher is described as a teacher who is the most successful in helping students learn. Being in line with the definitions made by Cruickshank and Haefele (2001) and Walker (2008), Cooper (2006) articulated that an effective teacher is someone who can achieve the intended learning outcomes, and he pointed out that effective teaching has of two critical aspects, namely intent and achievement. Ryan and Cooper (2004) further emphasized the fact that effective teaching requires more than acting on intuitions, and declared that a teacher needs to possess knowledge (i.e. content knowledge, pedagogy knowledge and pedagogical content knowledge), acquire a set of skills which are considered to be influential on student learning, and hold attitudes which enhance learning and human relationships. Besides, according to Wong and Wong (2004), an effective teacher manages to control the class in the very first week of the school, always does things correctly, and touches individuals’ lives.

2.3.1 Effective Teacher Characteristics, Attributes and Skills

There are several characteristics, attributes and skills that should be possessed by an effective teacher. According to Walker (2008), characteristic is identified as personal
qualities that enable teachers to be successful. Studying the pre-service teachers’ experiences with their previous teachers, Walker (2008) defined twelve characteristics possessed by effective teachers, i.e. being prepared, humorous, positive, creative, fair, compassionate, and forgiving, holding high expectations, displaying a personal touch, creating a sense of belonging, respecting students, and admitting mistakes. Similarly, Colker (2008) conducted a research study with practitioners in order to define effective early childhood teachers’ characteristics. She identified the twelve characteristics possessed by effective teachers as being passionate about teaching and students, perseverant, patient, willing to take risks, pragmatist, respectful, humorous, energetic, flexible, and creative, and love of learning. Another classification was made by Wong and Wong (2004) in that they defined three characteristics that should be possessed by effective teachers regardless of the grade level or subject they teach. These characteristics are having positive expectations for students’ success, managing the classroom efficiently, and knowing how to plan instructions to help students master the content. They further stated that effective teachers must be proficient at all of these characteristics. According to Arends (2009), some of the core characteristics of effective teaching requires individuals to be knowledgeable and academically qualified, care about students, and be able to contribute to their academic and social developments. Along with these characteristics, effective teachers are expected to possess the following attributes: having personal qualities which pave the way for the development of authentic and caring relationships, creating a democratic classroom, acquiring knowledge of the content, human development and learning, and pedagogy, possessing a variety of teaching practices to motivate students, help them acquire higher-level thinking skills and become self-regulated learners, and being able to reflect on their practices and solve problems. In a similar manner, Cooper (2006) stated that there are certain skills and knowledge that are needed in the teaching profession such as being familiar with students and the stages of development, knowing how individuals learn, having knowledge of subject matter, adopting a philosophy of education, and creating instructional environments to foster learning. Moreover, he asserted that some skills needed to implement the reflective decision-making model of teaching are planning,
writing instructional objectives, engaging students in instructional activities, questioning, differentiating the instruction, utilizing technology, managing the classroom, using cooperative learning strategies and assessment (Cooper, 2006).

According to Ryan and Cooper (2004), there are three main skills needed for effective teaching. The first one of the skills mentioned by Ryan and Cooper (2004) was classroom management, which includes establishing rapport, setting rules, managing time, facilities, and resources in the classroom. As reported by them, the use of questioning is the second essential skill for effective teaching since it supports students’ learning. Ryan and Cooper (2004) further expressed that there are several techniques for effective questioning. To begin with, teachers need to ask well-stated, brief and purposeful questions which provoke individuals and stimulate their thinking. Then, questions should be addressed to both volunteers and nonvolunteers to maintain a balance, and all students should be encouraged to answer the questions. Finally, by probing students’ answers or asking for support, teachers need to stimulate students’ thinking, and give feedback to motivate and inform them about their performance. According to Ryan and Cooper (2004), the last one of these skills was planning the instruction and the instructional activities as the plans made by the teachers determine the course content and the teaching-learning processes, and have an influence on students’ learning. They further stated that teachers need to possess the ability to realize students’ needs, use variety in instruction to get and keep students’ attention, make use of instructional technology to enhance learning, differentiate instruction considering students’ readiness and interest, and evaluate students’ learning.

In their book, Cruickshank et al. (2009) defined personal attributes and characteristics, professional skills and abilities, classroom management, problem solving and reflective skills that an effective teacher should possess. According to Cruickshank et al. (2009) and Goe (2007), personal attributes refer to traits which are related to personality and some of them are relatively easier to change or acquire than others. Cruickshank et al. (2009) claimed that professional attributes and skills,
which have an important impact on students’ achievement, are considered to be easier to acquire than personal attributes. They further stated that although the personal attributes, which are possessed by teachers, are expressed through behavior, in fact they are personality traits possessed and exhibited by everyone to varying degrees.

The eight personal attributes possessed by effective teachers were categorized under three groups, namely having a motivating personality, being oriented towards achievement and possessing a professional demeanor (Cruickshank et al., 2009). According to them, effective teachers have a motivating personality in such a way that they like their work, they support their students and they are trustable. Teachers who possess such a personality are enthusiastic about pursuing their profession, credible, warm and humorous in that they make learning fun and laugh with the class. In addition to possessing a motivating personality, they have faith in their capabilities to help students succeed, and they believe students have the necessary abilities to learn. Such teachers expect to be successful and possess high expectations for the success of their students. They do not set limits for students as they believe students’ potentials to learn. Through constantly challenging, encouraging and supporting students, these teachers help students be confident, feel belong and meet their expectations for achievement (Cruickshank et al., 2009; Walker, 2008). As asserted by Wong and Wong (2004), it is important for teachers to show their positive expectations from the students since these expectations turn into the way the students will perform. Furthermore, Cruickshank et al. (2009) stated that effective teachers, who have a professional demeanor, take their work seriously in that they show the subject is valuable and exhibit a professional look, they they carefully plan their instruction and convey a sense of purpose during instruction, they are capable of organizing the classroom based on the goals they set, and they can help students achieve the goals they established. Moreover, such teachers are ready and adaptable to changing situations and knowledgeable in terms of the field of study and student pedagogy.
Another important attribute possessed by effective teachers is professional skills. Cruickshank et al. (2009) defined seven skills possessed by such teachers and categorized them under four groups, namely being able to focus and engage students’ attention, optimizing the instructional time, maintaining interactive instruction, and giving feedback and using reinforcement. According to Feden, Lunenburg, and Wang, Haertel and Walberg, these teachers can catch learners’ attention and hold it during the class through establishing sets and using variety in their instructions (as cited in Cruickshank et. al, 2009). What is more, effective teachers do not waste instructional time and make use of the allocated time effectively so that students engage in instructional activities and learn more. These teachers spend more time for academic tasks, adjust their pace based on the difficulty of the tasks and the level of the students, and they use smooth transitions between the activities and lessons so as to help students learn more (Cruickshank et al., 2009; Walker, 2008). According to Cruickshank et al. (2009), effective teachers conduct interactive and clear instruction, create opportunities for learners to be active throughout the class, motivate them, and check their understanding by asking questions. Finally, this kind of teachers let students learn about their progress and enhance their motivation through feedback and reinforcement (Cruickshank et al., 2009).

Effective teachers are also supposed to possess classroom management skills. Wong and Wong (2004) defined classroom management as practices and procedures used so as to create an instructional setting in which teaching and learning can happen. According to them, classroom management has two main purposes: increasing students’ involvement in the activities and maintaining a productive environment (Wong & Wong, 2004). Similarly, Cruickshank et al. (2009) expressed that classroom management is related to the procedures needed for maintaining an effective learning environment, and it requires both preventive and reactive measures. In order to create a safe environment for learners in which they can learn effectively and interact with others and to prevent possible disruptions to classroom management, effective teachers plan the physical and psychological environment, and they develop classroom rules and routines (Cruickshank et al., 2009; Wong &
Moreover, they monitor students’ behavior by helping them take responsibility for their behavior and learning, showing withitness (i.e. awareness of students’ actions), using overlapping (i.e. monitoring several activities at once), establishing a smooth and well-paced instruction and using group alerting. In addition to that, they make use of reward and reinforcement in order to manage the class (Cruickshank et al., 2009). Despite the preventive measures, misbehavior can still occur, and teachers may need to use disciplinary approaches to maintain the order of the classroom. According to Cruickshank et al. (2009), as a response to students’ misbehavior, teachers use several intervention strategies such as extinction (i.e. not reacting to minor misbehaviors), nonverbal reactions (e.g. making eye contact, using gestures, and shaking head), verbal reactions, time-out and punishment.

Another skill deemed important by Cruickshank et al. (2009) for effective teachers to possess is problem solving. According to them, the problems that teachers face with are grouped under five categories: affiliation (i.e. needs for building and preserving positive relationships within school), control, relationships with parents, student achievement, and time. In order to prevent and/or resolve these problems, there are several measures that effective teachers can take such as building professional relationships, being cooperative, helping learners monitor their work, considering individuals’ needs and differences, and planning (Cruickshank et al., 2009).

Lastly, Cruickshank et al. (2009) argued the importance of having reflective skills in order to be an effective teacher and stated that reflection provides individuals with an opportunity to take lessons from experience. According to them, teaching requires practitioners to think about their practice, and reflecting on teaching helps good teachers to be more effective. Teachers, who possess reflective thinking skills, are open-minded and eager to take the responsibility of their decisions, and they make an effort to improve themselves professionally. Through the use of dialogue journals, action research, discussions and portfolios, these skills can be improved (Cruickshank et al., 2009).
2.3.2 Research Studies on Effective Teacher Attributes

Effectiveness of a teacher is an important aspect and it has direct influence on students’ success. The characteristics or attributes of effective teachers are generally investigated under two major categories, namely, personal attributes and professional skills. In the following, research studies, which were conducted in order to investigate pre-service teachers’ perceptions on effective teacher attributes, and the impacts of various variables such as gender, grade, level of education and ethnicity, are provided.

Requiring participants to use one-word expressions in order to state the characteristics possessed by effective teachers, Ogden et al. (1994) investigated the views of undergraduate and graduate students, studying education in a regional university, on effective teachers’ characteristics, and the impact of gender on their views. The sample consisted of 395 participants. In the analysis of the responses, the first three characteristics written by each participant were used, and the characteristics were scored from three to one in such a way that the characteristic was listed as the highest was given the highest score and vice versa. Moreover, the ones that were stated by a limited number of participants were omitted from the analysis. The 20 characteristics noted by participants were reorganized under 13 categories, and it was found that understanding, caring and knowledge were the most stated ones. According to the results of the study, the responses vary with respect to the gender and education level of the participants. When the scores assigned to characteristics were analyzed, it was seen that undergraduate females stated that understanding was the primary characteristic that an effective teacher should possess whereas it was caring for undergraduate males and graduate females, and that graduate males stated that caring is the primary characteristic. The findings of the study also revealed that participants’ responses varied based on their genders in such a way that while females preferred teachers who were understanding, enthusiastic, creative and organized, males preferred the ones who were fair, capable of communicating well, responsible and humorous. Another finding of the study was
that level of education resulted in a difference between participants’ responses. For instance, although undergraduate students stated being interesting, creative, firm, responsible and communicating well are some of the characteristics that an effective teacher should possess, graduates did not mention about them. On the contrary, some of the characteristics such as flexibility and being organized were stated only by the graduate students. Ogden et al. (1994) expressed that students mostly appreciated teachers based on humanistic characteristics such as understanding and caring which were not related with teaching, and personality characteristics were considered to be as important as professional skills while assessing teachers’ effectiveness. Also, it was found that participants seek humanistic characteristics in an effective teacher more than the professional ones such as being organized and holding high expectations.

Pre-service teachers’ perceptions on effective teacher characteristics and the factors which might influence their perceptions were assessed by Witcher and Onwuegbuzie (1999). The sample of the study consisted of 219 pre-service teachers enrolled in a large mid-Southern university. Among the participants, the majority of them were female, and white. In terms of year of study, the participants were either juniors, seniors or post-baccalaureate. The data were collected by a questionnaire which required individuals to identify, rank and define three to six characteristics possessed by effective teachers. The analysis of the data was handled in two stages. First, the researchers conducted a phenomenological analysis and identified six themes (i.e. student-centeredness, enthusiasm for teaching, ethicalness, classroom and behavior management, teaching methodology, and knowledge of subject) from the characteristics stated by the participants. Then, they used descriptive (i.e. percentage) and inferential statistics (i.e. Fisher’s Exact test, factor analysis, and canonical correlation analysis) to investigate the emerging themes. The analysis showed that while female pre-service teachers gave more importance to student-centeredness, males considered management style as the most important characteristic possessed by an effective teacher. Another finding of the study was that older pre-service teachers mentioned ethicalness more than others. Moreover, it was seen that
management style was considered as one of effective teacher characteristics mostly by Caucasian-American students. The results of the canonical correlation analysis revealed that mostly females, juniors and minority students perceive ethicalness and teaching methodology as effective teacher characteristics, and that these pre-service teachers rated knowledge of subject and management style to a lesser degree.

Minor et al. (2002) conducted a study in order to investigate teacher candidates’ perceptions on characteristics of effective teachers and to determine if their perceptions depend on their educational beliefs. The researchers collected data from 134 pre-service teachers enrolled in a university in southern Georgia. The participants were either undergraduate (i.e. first, second, third and fourth graders) or graduate students. Two instruments were used to collect data from the participants. The first instrument was Pre-service Teachers’ Perceptions of Characteristics of Effective Teachers Survey (PTPCETS) which enabled pre-service teachers to identify, rank and define three to six characteristics the effective teachers should possess. The second instrument was the Witcher-Travers Survey of Educational Beliefs (WTSEB), which aimed to identify pre-service teachers’ educational beliefs. Pre-service teachers were asked to state the characteristics they believed effective teachers had and to respond to the items on the instrument in order to reflect their educational beliefs. The analysis of the data was carried out by using a multistage qualitative-quantitative analysis, namely a sequential mixed analysis. Phenomenological inquiry, descriptive statistics (i.e. frequency and percentages) and inferential statistics (i.e. chi-square test and exploratory factor analysis) were used to analyze the data. Based on the participants’ responses, effective teachers’ characteristics were organized under seven categories, namely student centered, competent, ethic, enthusiastic about their profession, knowledgeable, professional and able to manage the classroom. Among these characteristics, being student-centered was the most frequently stated one by the candidates. Moreover, the analysis revealed that there was not a relationship between these characteristics and candidates’ race, grade level and favored school level to teach. In addition, it was found that male candidates stated such teachers are effective classroom managers more than females, and gender
did not have an impact on other characteristics. According to the data obtained via WTSEB, 28.4% of the pre-service teachers described themselves as transmittive, 12.7% of them described themselves as progressive, and the rest noted that they have an eclectic educational belief. However, no significant relationship was found between the perception categories and pre-service teachers’ educational beliefs.

In his study, Arıkan (2010) investigated the characteristics that effective English teachers should possess from pre-service English Language Teaching (ELT) students’ perspectives, and aimed to determine whether inservice teachers were considered to be effective from pre-service and inservice teachers’ points of view. Utilizing a mixed method design, the researcher collected data by conducting interviews with four pre-service and three inservice teachers, and by distributing an instrument to 50 pre-service ELT students. The data obtained through interviews were subjected to content analysis. Moreover, the quantitative data were analyzed by utilizing descriptive statistics (i.e. frequencies and percentages). The findings of the study revealed that pre-service teachers considered their mentoring teachers effective in terms of knowledge of the subject, establishing rapport and maintaining a positive classroom environment, and using the course book in an efficient way. However, these teachers were considered less effective in terms of possessing the skills related to the target language, preparing materials and knowledge of target culture. Overall, majority of the pre-service teachers perceived mentoring teachers ineffective. According to the findings of the interviews, the ability to transmit information, knowledge of the subject, using special teaching strategies, being a role model, open-minded and creative, valuing and respecting students, using technology in instruction were the characteristics of effective English teachers from the viewpoints of pre-service teachers. Furthermore, inservice teachers stated that it was difficult to be an effective English teacher because of the challenges they faced with such as lack of knowledge, lack of sufficient in-service training, and curriculum related problems like the decrease in the time allocated for English class per week.
Semiz and Zibande (2014) studied ELT students’ perceptions on effective English Language teacher attributes. The sample of the study consisted of 140 preparatory year students, enrolled in the department of Western Languages and Literature at Karadeniz Technical University. Data were collected through an instrument which consisted of two parts. In the first part of the instrument, which included 40 items on a 7-point scale, the participants rated the attributes of effective English Language teachers. And, in the second part, based on their importance, the participants ranked five categories of attributes; relationship with students, communication skill and teaching method, fairness, knowledge of English and organization and preparation. The data obtained from the first part of the instrument were analyzed by utilizing descriptive statistics. For the second part, mean rankings were compared, and in order to identify whether there were significant differences in these rankings, Friedman test was used. The findings of the study showed that pre-service teachers rated some of the attributes such as caring, being friendly, patient, and fair, establishing positive relationships with students, providing clear explanations and preparation for class higher than having charisma, using group work, and asking questions to individual students. It was found that the students placed the highest importance on Knowledge and Credibility attribute which included a good knowledge of English and being qualified for English teaching. Moreover, the Friedman test indicated that pre-service teachers perceive knowledge and credibility as the most important attribute possessed by effective English Language teachers.

Akın (2017) carried out a study utilizing a phenomenological research design in order to identify the perceptions of teacher educators, pre-service primary teachers, in-service classroom teachers, authorities of MoNE and CoHE on the fundamental qualifications that 21st century classroom teachers are expected to acquire and determine to what extent Classroom Teaching teacher education program enhances these qualifications based on in-service teachers’ views. The sample of the first step of the study consisted of 58 teacher educators, 29 pre-service classroom teachers, 28 in-service classroom teachers, 4 authorities from MoNE, and 1 authority from CoHE. Moreover, in the second step of the study, 22 in-service classroom teachers attended
to the study. In both steps of the study, the data were collected through semi-structured interviews. The data obtained from interviews were analyzed by utilizing content analysis. Moreover, the Classroom Teaching teacher education program was evaluated through document analysis. The data obtained in the first section of the study revealed that classroom teachers are expected to possess certain personality traits such as loving children, being patient, tolerant, enthusiastic, objective and fair. In addition to the personal traits, the analysis showed that classroom teachers are expected to possess certain domains of qualities such as pedagogical knowledge, content knowledge, pedagogical content knowledge, and school management. Moreover, it was found that classroom teachers need to possess certain qualities in the 21st century such as information and communications technology, higher-order thinking skills, flexibility, and effective communication. In the second section of the study, the effectiveness of the Classroom Teaching teacher education program in terms of contributing to the development of the aforementioned qualities was examined. According to the inservice teachers, the teaching program was sufficient regarding the development of qualities such as autonomy, professional development, and thinking skills. In terms of contributing to the development of qualities such as effective communication and assessment and evaluation, the program was considered as partially sufficient. Finally, the program was regarded as insufficient in terms of developing qualities such as school management, information and communications technology, and students with special needs.

Çakmak and Gündüz (2018) conducted a study in order to determine pre-service ELT teachers’ views on effective teacher characteristics. To this end, the researchers utilized a mixed-method research design and collected both qualitative and quantitative data. In total 192 fourth graders, studying ELT in two state universities in Turkey, participated to the study. The quantitative data were collected through the instrument developed by the researchers. Moreover, semi-structured interviews were carried out with 13 of the participants. In an attempt to analyze the data, both descriptive statistics and content analysis were used. The analysis of the quantitative data revealed that pre-service teachers perceived being objective and competent in
one’s subject area as two of the most important characteristics of an effective teacher. In addition, based on the interviews, pre-service teachers stated that effective teachers should create positive learning environments, establish positive relationships with learners, consider learners’ needs, be prepared for the class and be able to manage the classroom, and integrate technology.

Göksel and Rakıcıoğlu-Söylemez (2018) conducted a study so as to explore conceptions of ELT students of effective English language teacher characteristics, and to assess the role of ELT undergraduate programs on pre-service teachers’ perceptions on being an effective teacher. The sample of the study composed of 170 pre-service ELT students enrolled in first, second, third and fourth grades of the program. In order to collect data, participants were asked to create concept maps with respect to their perceptions on an effective English language teacher. In addition to this, semi-structured focus group interviews with 20 of the participants were conducted to better understand pre-service teachers’ perceptions on effective teachers. Data were analyzed by utilizing both qualitative and quantitative methods. The findings of concept maps showed that ten categories, namely, the teachers’ professional knowledge and development, personality traits, maintaining a social context in the classroom, roles of a teacher, the instructional process, the use of instructional materials and resources, classroom management, and the role of lesson and unit planning, evaluation and feedback, and attitudes towards the teaching profession, emerged while defining an effective teacher. Another finding of the study was that pre-service teachers consider having the necessary skills to use the language fluently and accurately as the most important characteristics possessed by effective English language teachers. Moreover, the participants noted that effective teachers were patient, helpful, humorous, and they establish positive relationships with students. Finally, the concept maps and interviews showed that pre-service teachers’ responses varied by grade.

As mentioned previously, several qualitative, quantitative and mixed method studies were conducted to determine the perceptions of pre-service and inservice teachers,
teacher educators, and authorities of MoNE and CoHE on the attributes possessed by effective teachers, and determine the impact of various variables such as gender, grade and level of education on their perceptions. These studies were conducted with inservice teachers and undergraduate and graduate pre-service teachers enrolled in different teacher training programs both in foreign and Turkish universities. The data were collected through concept maps and one-word expressions constructed by participants, questionnaires, surveys, scales and interview forms, and they were analyzed through phenomenological analysis, content analysis, descriptive statistics such as frequencies, percentages, and inferential statistics such as chi-square test, canonical correlation analysis, Friedman test and Fisher’s Exact test.

The findings of these studies are grouped under six categories. First of all, the studies revealed that although pre-service teachers agreed on some of the characteristics possessed by effective teachers, there were differences, as well. The study conducted by Ogden et al. (1994) showed that participants mostly noted understanding, caring and knowledge as effective teacher characteristics, and that characteristics related to personality were appreciated more. On the other hand, according to the findings of Minor et al.’s (2002) study being student-centered was the most frequently stated characteristic by the candidates. Studies conducted to reveal ELT students’ views on effective teacher attributes showed that ELT students give importance to both personal and professional characteristics, and they consider being caring, friendly, humorous, patient, fair, open-minded, creative, valuing and respecting students, providing clear explanations and preparation for class, ability to transmit information, having knowledge of the subject, using different teaching strategies and integrating technology into instruction, and being able to manage the classroom as some of the characteristics possessed by effective teachers (Arıkan, 2010; Çakmak & Gündüz, 2018; Göksel & Rakıcıoğlu-Söylemez, 2018; Semiz & Zibande, 2014).

Second, according to some of the studies, pre-service teachers’ views on effective teacher attributes differ by gender (Ogden et al., 1994; Witcher & Onwuegbuzie, 1999). Moreover, Minor et al. (2002) found that although males tend to consider classroom management as one of the most important characteristics possessed by
effective teachers, females did not report this characteristic as much as males did. However, the findings of their study showed that gender did not have an impact on pre-service teachers’ views on other characteristics. Third, some of the studies revealed that grade level of pre-service teachers impacted on their views on effective teacher characteristics (Göksel & Rakıcıoğlu-Söylemez, 2018; Minor et al., 2002). Fourth, the findings of the study conducted by Ogden et al. (1994) showed that level of education had an impact on their views. Fifth, Witcher and Onwuegbuzie (1999) showed that pre-service teachers’ perceptions differed with respect to their ethnicity. However, the findings of the study conducted by Minor et al. (2002) revealed that there was not a relationship between these characteristics and candidates’ race. Finally, the findings of the study conducted by Minor et al. (2002) revealed that candidates’ favored school level to teach did not have an impact on their views on effective teacher characteristics. Overall, it can be concluded that several studies were conducted in order to examine pre-service teachers’ perceptions both in Turkey and in the world. However, most studies conducted in Turkey focused on perceptions on pre-service teachers enrolled in ELT, and there were no studies investigating the perceptions of teacher candidates enrolled in other programs.

2.4 Summary of Literature Review

In this chapter, related literature and existing studies on education-themed movies, attitudes towards teaching profession and effective teacher attributes were presented. According to Altan (2016) and Silman (2017), education-themed movies are movies about education, school and classroom management, and the behaviors and attitudes of teachers, and they are perceived as effective tools for conveying attitudes and behaviors and contributing to the development of individuals (Altan, 2016; Available Light Advisory, 2012; Birkök, 2008; Blasco et al., 2015). Moreover, they are used to teach various topics, concretize abstract messages, increase learning, and prepare prospective teachers to the profession (Available Light Advisory, 2012; Birkök, 2008; Dalton, 2013; O’Bannon & Goldenberg, 2008; Yakar, 2013, 2016, in press).
The literature review showed that a number of studies were carried out to analyze the content of movies and the impact they have on pre-service and in-service teachers, educators, learning environments, and individuals’ views on education. These studies utilized both qualitative and quantitative methods, and the analyses of data were carried out by using content analysis, descriptive statistics, and inferential statistics. The results of the previous studies showed that education-themed movies are effective in that they positively impact pre-service teachers’ attitudes towards teaching profession, self-efficacy beliefs and motivations (Kaşkaya et al., 2011; Kontaş, 2016). The results of Oruç and Sarıbudak’s (2015) study indicated that educators think education-themed movies enhance individuals’ tolerance towards differences. Lastly, some researchers argued that because of the misinformation contained in the movies, their use has negative impacts on individuals’ views on education (Birkök, 2008; Gregory, 2007; Scull & Peltier, 2007; Vandermeersche et al., 2013). Scull and Peltier (2007) further claimed that the fictional teachers put an excessive pressure on real teachers. However, it was seen that the impact of education-themed movies on pre-service teachers’ perceptions on effective teacher attributes has not been studied before.

Attitude is defined as the dispositions to respond to psychological objects positively or negatively (Aiken, 1980; Thurstone, 1946), and it can be developed through direct experience, reinforcement, imitation and social learning (Johnston, 2001; Kağıtçıbaşı, 1999). According to Bandura (1977) and Ruiz (1999), observation plays an important role in the acquisition of behaviors, beliefs, values and attitudes. Presenting stories from real life, movies provide an opportunity for individuals to observe the experiences of others and an influential way for transmitting attitudes (Altan, 2016). Moreover, the use of humanities (e.g. literature, theater and cinema) helps dealing with attitudes and emotions and fostering individuals’ developments (Available Light Advisory, 2012; Birkök, 2008; Blasco et al., 2015).

According to Bhargava and Pathy (2014), attitude towards the profession impacts teachers’ proficiency. Moreover, as Richardson (1996) explained, beliefs and
attitudes have a significant role in teacher education since they impact the way individuals process information, teach and react to change. The literature review on attitudes towards teaching profession showed that many studies were carried out to examine attitudes of pre-service teachers towards the profession and the impact of several factors such as gender, grade level, and major. The existing studies utilized qualitative, quantitative and mixed methods in an attempt to investigate the attitudes of pre-service teachers towards the profession. The sample of these studies consisted of first, second, third and fourth year pre-service teachers enrolled in different teacher training programs at universities such as Ahi Evran University, Atatürk Teacher Training Academy in Turkish Republic of Northern Cyprus (TRNC), Gazi University, Middle East Technical University, and Near East University in TRNC. Data collection instruments such as personal information forms, scales, and questionnaires were used, and content analysis, descriptive statistics, and inferential statistics were utilized while analyzing the data.

The results of the existing studies showed while some researchers found that female pre-service teachers had more positive attitudes towards the profession (Aksoy, 2010; Bozdoğan et al., 2007; Eret-Orhan & Ok, 2014; Fadlelmula, 2013; Güneyli & Aslan, 2009; Pektaş & Kamer, 2011; Sağlam, 2008; Tanrıöğren, 1997; Tezci & Terzi, 2010; Üstüner et al., 2009), others found that gender did not have an impact (Başbay et al., 2009; Çapa & Çil, 2000; Hacıömeroğlu & Şahin-Taşkın, 2010; Kaplan & İpek, 2002; Kesen & Polat, 2014; Özder et al., 2010; Taşdemir, 2014; Tok, 2012). Similarly, while some researchers concluded that major did not impact pre-service teachers’ attitudes towards the profession (Bozdoğan et al., 2007; Hacıömeroğlu & Şahin-Taşkın, 2010; Tanrıöğren, 1997), others revealed the exact opposite (Aksoy, 2010; Eret-Orhan & Ok, 2014; Kesen & Polat, 2014; Özder et al., 2010; Üstüner et al., 2009). Finally, although some studies showed that grade level did not influence pre-service teachers’ attitudes towards the profession (Güneyli & Aslan, 2009; Özder et al., 2010; Tanrıöğren, 1997; Taşdemir, 2014; Tezci & Terzi, 2010; Üstüner et al., 2009), the studies conducted by Çapa and Çil (2000), Kaplan and İpek (2002), Sağlam (2008), Akbulut and Karakuş (2011), Pektaş and Kamer
Fadlelmula (2013) and Uyanık (2017) showed that grade level had an influence on attitudes of pre-service teachers.

An effective teacher is able to help students learn (Cruickshank & Haefele, 2001), and such a teacher needs to have knowledge, acquire a set of skills, and possess positive attitudes (Ryan & Cooper, 2004). According to Cruickshank et al. (2009), an effective teacher should possess characteristics such as personal attributes, professional skills and classroom management skills. The literature review showed that several qualitative, quantitative and mixed method studies were conducted in order to examine the perceptions of pre-service and inservice teachers, educators, and administrators on the effective teacher attributes and to investigate the impact of various variables such as gender, grade level and education level on their perceptions. The sample of these studies consisted of inservice teachers, educators, and undergraduate and graduate pre-service teachers enrolled in various teacher training programs in foreign and Turkish universities. A variety of instruments such as questionnaires, surveys, scales and interview forms were used to collect data, and the data were analyzed by utilizing phenomenological analysis, content analysis, descriptive statistics, and inferential statistics.

The results of the studies conducted by Ogden et al. (1994), Minor et al. (2002), Semiz and Zibande (2014) and Göksel and Rakıcıoğlu-Söylemez (2018) revealed that pre-service teachers give importance to personal attributes of effective teachers more than professional skills. Moreover, while some pre-service teachers stated that being understanding, caring and knowledgeable are effective teacher attributes (Ogden et al., 1994), some of them considered being student-centered as an attribute of such teachers (Minor et al., 2002). On the other hand, some studies revealed that that ELT students give importance to both personal and professional attributes (Arıkan, 2010; Çakmak & Gündüz, 2018). According to the results of some of the studies, views of pre-service teachers on effective teacher attributes vary with respect to their gender (Ogden et al., 1994; Witcher & Onwuegbuzie, 1999). Finally, some studies showed that grade level has an influence on pre-service teachers’ views on
effective teacher attributes (Göksel & Rakıcıoğlu-Söylemez, 2018; Minor et al., 2002). However, it was seen that perceptions of pre-service teachers enrolled in teacher training programs other than ELT were not investigated before.
CHAPTER 3

METHOD

In this chapter, information about the research design, sample and sampling procedure, instruments, instrument development process and the piloting of the instruments, data collection and analysis procedures, assumptions and limitations are presented.

3.1 Overall Research Design

The purpose of the study is to describe the influence of education-themed movies on pre-service teachers’ attitudes towards teaching profession and perceptions on effective teacher attributes. To understand the influence of education-themed movies, a survey research design is utilized. According to Fraenkel, Wallen and Hyun, survey design research is used to describe a population’s characteristics and investigate “how the members of a population distribute themselves on one or more variables” (2015, p. 391).

In this study, the dependent variables are perceptions on effective teacher attributes and attitudes towards teaching profession, and the main independent variables are seeing an education-themed movie and the number of education-themed movies seen by pre-service teachers. Conducting a literature review on these variables and examining the previous studies, the data collection instruments were developed by the researcher in order to gather information on the aforementioned variables.

The instruments were administered to 427 second, third, and fourth year prospective teachers enrolled in English Language Teaching, Computer Education and Instructional Technology, Elementary Mathematics Education, Elementary Science Education, Mathematics Education, Physics Education, and Chemistry Education.
programs at a public university (University D), where the medium of instruction is English, during the class time. The data collected from pre-service teachers were analyzed by using SPSS. Moreover, responses to the open-ended items were investigated through content analysis, and grouped under categories. The research flow is summarized in Figure 3.1.

3.2 Sample and Sampling Procedure

The target population of the study is teacher candidates enrolled in teacher education programs of education faculties of universities in Ankara/Turkey. However, the accessible population is consisted of pre-service teachers enrolled in teacher education programs in one of the public universities in Ankara. University D was selected because of its convenience to access teacher candidates.

A convenience sampling method was used to select participants because selecting a random sample was difficult for reaching to the target population and collecting data (Fraenkel et al., 2015). The second, third and fourth grade pre-service teachers enrolled in teacher education programs (i.e. Elementary Mathematics Education, Elementary Science Education, English Language Teaching, Computer Education and Instructional Technology, Mathematics Education, Physics Education and Chemistry Education) constituted the sample. Students enrolled in these programs usually take service courses, which are mostly related with content knowledge and general culture, in their 1st and 2nd years, and they take courses related with pedagogical content knowledge such as method courses and school experience in their 2nd, 3rd and 4th years. The first graders were not included in the sample since they have taken less courses on education that enables them to learn the attributes of effective teachers and to develop attitudes towards the profession, and they had less experience in the faculty, and limited knowledge about the teaching profession compared to other candidates. Moreover, because of the changes in teacher training programs, the number and content of the courses offered in first grade with regard to education, were changed (CoHE, 2018).
DEFINING THE PURPOSE AND PROBLEM OF THE STUDY

PLANNING

- Conducting literature review
- Formulating research questions
- Defining the terms and concepts

SAMPLING

- Defining the population
- Determining the sample

DATA COLLECTION INSTRUMENTS

- Developing the item pools and the data collection instruments
- Pilot study
- Main study

DATA ANALYSIS

- Analyzing the data gathered through the instruments

WRITING THE THESIS

Figure 3.1 Research Flow of the Study
Therefore, pre-service teachers who are enrolled in first grades of their programs in 2018-2019 academic year are expected to have different academic experiences in terms of knowledge and awareness of education than the first graders of the previous years.

In total, 427 pre-service teachers participated to the study. However, only the data gathered from 400 of them were usable. Therefore, the 400 pre-service teachers enrolled in 2nd, 3rd and 4th grades of the aforementioned teacher training programs at University D constituted the sample of the study. Pre-service teachers enrolled in Early Childhood Education were not included in the sample of this study because of the very nature of this branch. The age group of the students (in terms their pedagogical, physiological and cognitive needs) that early childhood education teachers deal with are different than the ones elementary and secondary school teachers deal with. Similarly, the student-teacher relationships in pre-school differ from other educational stages. Pre-school teachers are expected to possess mostly the personal attributes of effective teachers such as being passionate about children and teaching, persevering, risk taker, pragmatist, patient, flexible, respectful, creative, authentic, eager to learn, energetic, and humorous (Colker, 2008), on the other hand, in other branches, effective teachers should possess both personal and professional attributes. In addition, although most of the curricula for elementary and secondary education focus primarily on cognitive development, early childhood education curriculum focuses on cognitive, affective and psychomotor development. So, early childhood education teachers should possess a wide variety of content and pedagogical content knowledge. Finally, the classroom environment of the pre-schools is different than that of primary, elementary or secondary schools. Therefore, the classroom management issues are not similar. Considering the nature of early childhood education, the curriculum of this teaching program, the content of the pedagogy courses, the experiences of pre-service teachers, their perceptions on an effective teacher and attitudes towards teaching profession were assumed to be varying from the teacher candidates enrolled in other programs.
Among the participants, 79.50% ($n = 318$) of them were female and 20.50% ($n = 82$) of them were male. When the participants’ grade level was considered, it was seen that 27.75% ($n = 111$) of the participants were 2nd graders, 41.75% ($n = 167$) of them were 3rd graders, 29.25% ($n = 117$) of them were 4th graders and 1.25% ($n = 5$) of them were 5th graders. Since the number of 5th grades were not enough for a comparison based on grade level, and there are not major differences between 4th graders and 5th graders, pre-service teachers enrolled in 5th grade were treated as 4th graders.

Table 3.1

Pre-service Teachers’ Distribution according to Gender, Grade Level and Major

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Group</th>
<th>$n$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>318</td>
<td>79.50</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>82</td>
<td>20.50</td>
</tr>
<tr>
<td>Grade Level</td>
<td>2nd Grade</td>
<td>111</td>
<td>27.75</td>
</tr>
<tr>
<td></td>
<td>3rd Grade</td>
<td>167</td>
<td>41.75</td>
</tr>
<tr>
<td></td>
<td>4th Grade</td>
<td>122</td>
<td>30.50</td>
</tr>
<tr>
<td>Major</td>
<td>FLE</td>
<td>179</td>
<td>44.75</td>
</tr>
<tr>
<td></td>
<td>CEIT</td>
<td>41</td>
<td>10.25</td>
</tr>
<tr>
<td></td>
<td>EME</td>
<td>77</td>
<td>19.25</td>
</tr>
<tr>
<td></td>
<td>ESE</td>
<td>82</td>
<td>20.50</td>
</tr>
<tr>
<td></td>
<td>SSME</td>
<td>21</td>
<td>5.25</td>
</tr>
</tbody>
</table>

Also, when the participants’ programs were examined, it was seen that 44.75% ($n = 179$) of the participants were enrolled in FLE, 10.25% ($n = 41$) of them were enrolled in CEIT, 19.25% ($n = 77$) of them were enrolled in EME, 20.50% ($n = 82$) of them were enrolled in ESE, 1.50% ($n = 6$) of them were enrolled in MHED, 1.75% ($n = 7$) of them were enrolled in PHED, and 2% ($n = 8$) of them were enrolled in CHED. Considering the very small number of participants enrolled in MHED, PHED and CHED, which causes an obstacle for a comparison based on major, and the similarity of these majors in that all of them were under the department of Secondary Science and Mathematics Education (SSME), these participants were grouped under one major, namely SSME. Table 3.1 presents the pre-service teachers’ characteristics according to gender, grade level and major.
Of the participants, 93.75% \((n = 375)\) have seen at least one education-themed movie, and 6.25% \((n = 25)\) have not seen an education-themed movie before. It was seen that 29.25% \((n = 117)\) of them have seen two education-themed movies, 21.50% \((n = 86)\) of them have seen three education-themed movies, 20% \((n = 80)\) of the participants have seen one education-themed movie, 13.25% \((n = 53)\) of them have seen four education-themed movies, 4.75% \((n = 19)\) of them have seen five education-themed movies, 3.50% \((n = 14)\) of them have seen six education-themed movies, 1.25% \((n = 5)\) of them have seen seven education-themed movies, and .25% \((n=1)\) of them have seen eight education-themed movies.

Table 3.2

*Pre-service Teachers’ Distribution according to their Experience with Education-Themed Movies and Number of Education-Themed Movies They Have Seen*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Groups</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeing an education-themed movie</td>
<td>No</td>
<td>25</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>375</td>
<td>93.75</td>
</tr>
<tr>
<td>Number of education-themed movies seen</td>
<td>0</td>
<td>25</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>80</td>
<td>20.00</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>117</td>
<td>29.25</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>86</td>
<td>21.50</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>53</td>
<td>13.25</td>
</tr>
<tr>
<td></td>
<td>5 or more</td>
<td>39</td>
<td>9.75</td>
</tr>
</tbody>
</table>

The number of participants who have seen five, six, seven or eight movies were relatively small, so they were grouped under a new category called “5 or more”. Table 3.2 shows the pre-service teachers’ distribution according to their experience with education-themed movies and the number of education-themed movies they have seen before.
3.3 Data Collection Instruments

**PURPOSE OF THE STUDY**
(Research Questions)

- Reviewing the related literature and existing scales
- Determining the instruments
- Preparing the item pools for each instrument
- Preparing the first draft of the instruments
- Preparing the second draft of the instruments
- Preparing the third draft of the instruments
- Applying for approval and permission
- Pilot Study *(N=241)*

**THE FINAL VERSION**

- **I:** Demographic Information Form
- **II:** Perceptions on Effective Teacher Attributes Scale
- **III:** Attitude towards Teaching Profession Scale

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*Figure 3.2 Steps in the Development of the Data Collection Instruments*
The data were collected by three instruments. The first instrument was a demographic information form consisting of two parts. The first part of the form aimed to determine pre-service teachers’ gender, major, grade level and semester, and the second part of the form aimed to identify participants’ experiences with education-themed movies. The second instrument was Perceptions on Effective Teacher Attributes (“PETA”) scale which was prepared to investigate pre-service teachers’ perceptions on attributes possessed by effective teachers. And, the third one was Attitudes towards Teaching Profession (ATTP) scale which aimed to determine the attitudes of pre-service teachers towards the profession. In the following sections, preparation procedures of the instruments are presented. Figure 3.2 represents the steps followed while developing the data collection instruments.

3.3.1 Preparation of the Item Pools

Three instruments were developed to determine the influence of education-themed movies and demographic information of pre-service teachers (i.e. gender, major and grade level) on perceptions possessed by pre-service teachers on the attributes of effective teachers and their attitudes towards teaching profession. Information related to the instruments and their development procedure are presented below.

The first instrument, which consisted of two parts, aimed to gather information related to demographic features of participants and their experiences with education-themed movies. In order to prepare the demographic information form, a literature review was conducted and the variables which were frequently studied in the existing studies were determined. Later, open-ended items were written considering the existing studies and the purpose of the current study. In the first part of the instrument, there were four open-ended items which required participants to give information about their gender, major, the semester and the grade they were attending to. In the second part, an operational definition regarding education-themed movie and a few examples of such movies were provided. Then, five open-ended items were written in order to assess pre-service teachers’ experience with education-themed movies.
The second instrument was the “PETA” scale which aimed to determine pre-service teachers’ perceptions on the attributes of effective teachers. The first step for developing this scale was to determine attributes possessed by effective teachers. To this end, a literature review was conducted and frameworks regarding the attributes of effective teachers were investigated. Among the frameworks found in the literature, Cruickshank et al.’s (2009) definition of effective teacher and classification of attributes of an effective teacher were considered as the main one. Based on this, two dimensions were proposed. These dimensions were personal attributes possessed by effective teachers and professional attributes/skills possessed by effective teachers. While writing items, the descriptions regarding the attributes of effective teachers made by Cruickshank et al.’s (2009) were considered and items for each attribute were written. Then, items were put under the related dimensions. These dimensions and their descriptions, the number of items in each dimension and a sample item for each dimension are presented below;

1. Personal Attributes Possessed by Effective Teachers (PerA) (68 items): An effective teacher’s personal attributes are being enthusiastic, warm, humorous, credible, encouraging and supportive, businesslike, flexible, knowledgable and holding high expectations for success. Based on the aforementioned description, this dimension includes items regarding pre-service teachers’ perceptions on the personal attributes that effective teachers should possess. One of the items in this dimension was “Effective teachers believe that all students can succeed”.

2. Professional Attributes Possessed by Effective Teachers (ProA) (20 items): An effective teacher’s professional attributes are holding student’s attention, managing instructional time efficiently, preparing effective instructional materials and providing feedback and reinforcement. This dimension includes items regarding pre-service teachers’ perceptions on the professional attributes that effective teachers should possess. One of the items in this
dimension was “Effective teachers can attract students’ attention throughout the class”.

After a careful examination, the number of items was decreased to 53. The draft of the scale consisted of 36 items on PerA and 17 items on the ProA.

The third instrument was ATTP scale which aimed to determine teacher candidates’ attitudes towards teaching profession. Although there were existing scales on attitudes towards teaching profession (e.g. Erkuş, Şanlı, Bağlı, & Güven, 2000; Çetin, 2006; Üstüner, 2006), a decision was made in favor of developing a new one considering the fact that these scales were not up-to-date. The first step for developing this scale was to define attitude and determine the dimensions underlying attitude towards teaching profession. To do so, the related literature was reviewed and theories on attitude were examined. Then, Aiken’s (1980) definition of attitude was considered as the main framework. After the construct was defined, the existing scales were examined. Based on the literature review, three dimensions were proposed. These dimensions were: loving the teaching profession, competency beliefs towards teaching profession and values attached to the teaching profession.

The item pool for the scale was constructed by following two steps. First, items were selected from the previous scales, and revisions were made in these items. Second, new items were written for each dimension. While selecting and writing items, Aiken’s (1980) definition of attitude was considered, and items related to cognitive, affective and performance components of attitude were included in the item pool. Each item was put under the related dimensions. These dimensions and their descriptions, the number of items in each dimension and a sample item for each dimension are presented below;

1. Loving the Teaching Profession (LTP) (9 items): This dimension includes items regarding whether or not the pre-service teachers like the teaching profession and they want to pursue the profession. A sample item from this dimension was “The idea of teaching something to people makes me happy”.
2. Competency Beliefs towards Teaching Profession (CBTTP) (9 items): This dimension includes items related to pre-service teachers’ competency beliefs regarding whether or not they possess sufficient knowledge and skills to pursue teaching profession. A sample item from this dimension was “I believe that I have a special talent for the teaching profession”.

3. Values Attached to the Teaching Profession (VATP) (5 items): This dimension includes items regarding whether or not the pre-service teachers consider the teaching profession important, necessary and valuable. A sample item from this dimension was “Teaching is a profession that can contribute to the development of the society”.

Both “PETA” and ATTP scales were constructed as 5-point Likert scales. The pre-service teachers were asked to read each item and select the choice that best describes their responses. The reason for utilizing a Likert response scale was that it provides internally consistent data and is easy to construct (Nunnally & Bernstein, 1994). According to Krosnick and Fabrigar (1997), individuals identify their attitudes towards an object more accurately when the number of scale points increases. Furthermore, this helps researchers obtain useful information and identify attitudes of the participants. Another view advocated by Krosnick and Fabrigar (1997) was that the optimal number of scale points range from 5 to 7, since such scales tend to provide more reliable and valid scores than others. They further stated that using verbal labels for each scale point is important since it increases the reliability and validity of the scores received from the scale. Considering that, each scale point was labeled ranging from “1 = strongly disagree” to “5 = strongly agree”, and a midpoint “3 = neither agree nor disagree” was included. Moreover, the items were ordered in such a way that no two items representing the same dimension followed each other.

After the first drafts of each instrument were developed, they were examined with the supervisor, revisions regarding the wording of the items were made, and the second drafts of the instruments were formed. Then, the revised versions of the
instruments were tested in order to see whether the items were understood by participants and were measuring the intended constructs by conducting read-aloud sessions with three pre-service teachers enrolled in different teaching programs at Middle East Technical University. The participants were 4th year students enrolled in EME, CEIT, and PHED. All of them volunteered to participate in the study, and they were informed about the procedure in advance. They were asked to read the items aloud, complete the demographic information form and respond to the items on the “PETA” and ATTP scales while expressing their ideas, comments and feelings towards the clarity and meaning of each item, and the appearance of the instruments.

During the read-aloud sessions, the participants made some comments and the researcher took notes of her observations. To begin with, while the participants were reading the items, they realized that there were some typing errors such as missing or additional syllables in the instructions or the items, and they stated that they should be corrected. Second, some of the participants expressed that providing a list for education-themed movies would be practical for participants to recall the names of the movies they have seen while responding to the items on the first instrument. Third, some of the items on “PETA” and ATTP scales were not perceived as clear enough, and they were either misunderstood or not understood at all. For example, two of the participants stated that in the 42nd item on “PETA” scale “Effective teachers enable students to spare more time to academic work/in class activities related to learning”, the phrase academic work caused a misunderstanding in that the phrase evoked university. Fourth, the participants made suggestions for the word choices. For example, for the 12th item “Effective teachers encourage their students to approach to them and be open”, one of the participants suggested to paraphrase the item as “Effective teachers encourage students to communicate their feelings and thoughts clearly”. Finally, they said that although the instruments were not long or crowded, it would be less eye-tiring if the line spacing was increased, and the rating scales given for each item were left empty.
To summarize, most of the items were understood by the participants, but they stated that some of the items were not clear enough. In order to improve these items, they were restated based on the participants’ suggestions. Moreover, the spelling mistakes, which were pointed out during the read-aloud sessions, were corrected. However, a list for education-themed movies was not considered since it was thought that providing such a list would be misleading in that participants could select the movies they have not seen, as well.

After the instruments were revised considering the feedback received from the participants and third drafts were formed, expert opinion was taken. According to Fraenkel et al. (2015), the judgements of experts on the clarity of items, the format of scale, and whether the items are measuring the intended construct provides face-validity and content-validity of an instrument. In order to receive expert opinion and provide evidence for validity, the revised versions of the instruments were sent to six experts. Among the content experts, three of them were academics who were specialized in either Curriculum and Instruction, or Measurement and Assessment, and three of them were Curriculum Specialists or Measurement and Assessment Specialists. The experts were provided with an abstract of the study, the descriptions of the constructs, and the items in each instrument (i.e. the 3rd drafts of the instruments). They were asked to assess the quality and clarity of the items, check whether the items were adequate for the constructs and the dimensions they were put under and give recommendations for improvement, if any.

Following the examination of the instruments, the experts gave feedback regarding the clarity and quality of the items, accuracy of the items for the constructs/dimensions they were written for, and the format of the instruments. To begin with, two of the experts commented on the format of the instruments. The first one stated that providing the rating scale for each item is eye-tiring. The second expert suggested changing the format of the second part of the demographic information form and providing participants with a table in which they could report the name of the movie, and where and how many times they watched it in a row.
Moreover, one of the experts recommended to give a full list for these movies in which participants were allowed to select the ones they have seen. Based on their examination of the second part of the demographic information form, some of the experts stated that the participants who have not seen such a movie before were not expected to respond to the items, except the first one. Thus, the experts suggested providing an instruction stating that the participants who have not seen an education-themed movie can skip the 2nd, 3rd, 4th and 5th items. Furthermore, they recommended a revision in order to avoid repetition of the phrase *If you have seen an education-themed movie before* which reoccurred in these items. Similarly, most of the experts stated that the *effective teacher* expression, which was being repeated in each item of the “PETA” scale, could be written in the beginning of the scale and excluded from the items. Regarding the items in the “PETA” scale, the experts stated that some of the items consisted of double-statements and they recommended to separate them. Few experts stated that some of the items were similar to each other. For example, the 1st item of the ATTP scale “The idea of teaching something to people makes me happy” and the 2nd item of the scale “The idea of being a teacher makes me happy” were said to be similar to each other. It was also stated that some of the items were not related with the dimension they were considered to be related. For instance, the 5th item of the ATTP scale “If I have to choose a profession again, I would choose teaching” was considered to be related with “Loving the Teaching Profession”, but one expert stated that this might be related with other dimensions, as well. Lastly, one of the experts recommended adding items for “Loving the Teaching Profession” and “Competency Beliefs towards Teaching Profession” dimensions of the ATTP scale. For example, for the “Loving the Teaching Profession” dimension, she suggested adding “The idea of being with students excites me”.

To sum up, the experts assessed whether the items were measuring the intended constructs and suitable for the aforementioned dimensions. Moreover, they commented on the appearance of the instruments. Based on their views, although the items were generally measuring the intended construct, there were problematic items, as well. First, they stated that some of the items consisted of double-statements. Such
items were separated and expressed as different items. Another feedback was given on the repetition of the phrase, *if you have seen an education-themed movie before*, which was seen in the root of each item in demographic information form, and the phrase, *effective teacher*, which appeared in the root of each item in the “PETA” scale. Based on the suggestions of the experts, the former phrase was omitted, and the latter phrase was moved to the top of the “PETA” scale and excluded from the beginning of the related items. Moreover, according to the experts, either some of the items were not related with the intended constructs or they were not clear enough. Considering the experts’ opinions, these items were excluded from the scale or restated based on their suggestions. And, for the ATTP scale, new items were written. After the revisions, the final version of the demographic information form and the scales were shaped, and the number of items in the demographic information form did not change. The dimensions underlying each scale remained the same, however, the number of the items in “PETA” and ATTP scales changed. The 4th drafts of the “PETA” and ATTP scales consisted of 38 and 23 items, respectively.

### 3.3.2 Piloting of the Instruments

In the pilot study, the instruments were administered to 2nd, 3rd and 4th grade pre-service teachers enrolled in different majors (including Mathematics Education, Elementary Mathematics Education, Physics Education, Chemistry Education, Elementary Science Education, English Language Teaching and Computer Education and Instructional Technology) of one private (*University A*) and two public (*University B* and *University C*) universities in Ankara. Since the main study was going to be carried out at a public university (*University D*) in which the medium of instruction is English, the pilot study was planned to take place in other universities. The teacher education programs offered in the universities in Ankara were examined and the ones which offered similar programs with *University D* and were the most convenient for data collection were included in the pilot study. The pre-service teachers included in the pilot study have similar experiences and characteristics such as age and gender with the ones enrolled at *University D*. However, since students
enroll programs based on their scores in the university placement examination, their characteristics in terms of academic achievement might differ. Similarly, one of the universities, University A, was a private university. Although the university provides scholarship, there might be a difference between the pre-service teachers studying at University A and University D in terms of socio-economic status. However, neither academic achievement nor socio-economic status were related to the purpose of the study, and it was thought that the sample of the pilot study represented that of the main study. Hence, in total 241 teacher candidates enrolled at the aforementioned universities participated to the pilot study.

The data obtained from the pilot study in relation to “PETA” and ATTP scales were subjected to factor and reliability analysis to determine the underlying dimensions and internal consistency of data obtained from the instrument.

### 3.3.2.1 Perception on Effective Teacher Attributes Scale (“PETA”)

In order to conduct the pilot study of the “PETA” scale, it was administered to 241 undergraduate students enrolled in teacher training programs in University A, University B and University C. However, only 209 of the data were useable.

Of the participants, 51.20% (n = 107) were from University C, 41.63% (n = 87) were from University A, and 7.18% (n = 15) were from University B.

Table 3.3

<table>
<thead>
<tr>
<th>University</th>
<th>Female</th>
<th>Male</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>70</td>
<td>17</td>
<td>87</td>
<td>41.83</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>7</td>
<td>15</td>
<td>7.21</td>
</tr>
<tr>
<td>C</td>
<td>82</td>
<td>24</td>
<td>106</td>
<td>50.96</td>
</tr>
</tbody>
</table>

Also, among them, 76.92% (n = 160) were female, and 23.08% (n = 48) of them were male. Table 3.3 presents the pre-service teachers’ distribution according to university and the gender.
When the participants’ grade level was considered, it was seen that 40.58% \( (n = 84) \) of the participants were 2\textsuperscript{nd} graders, 26.57% \( (n = 55) \) of them were 3\textsuperscript{rd} graders, 31.88% \( (n = 66) \) of them were 4\textsuperscript{th} graders and .97% \( (n = 2) \) of them were 5\textsuperscript{th} graders. Moreover, Table 3.4 presents the pre-service teachers’ distribution according to university and grade level.

**Table 3.4**

*Pre-service Teachers’ Distribution according to University and Grade Level*

<table>
<thead>
<tr>
<th>University</th>
<th>2\textsuperscript{nd}</th>
<th>3\textsuperscript{rd}</th>
<th>4\textsuperscript{th}</th>
<th>5\textsuperscript{th}</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>24</td>
<td>19</td>
<td>42</td>
<td>85</td>
<td>41.06</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>7.25</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>50</td>
<td>34</td>
<td>21</td>
<td>107</td>
<td>51.69</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>84</td>
<td>55</td>
<td>66</td>
<td>2</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

When the participants’ programs were examined, it was seen that 38.28% \( (n = 80) \) of the participants were enrolled in FLE, 7.18% \( (n = 15) \) of them were enrolled in CEIT, 20.57% \( (n = 43) \) of them were enrolled in EME, 12.44% \( (n = 26) \) of them were enrolled in ESE, 17.70% \( (n = 37) \) of them were enrolled in MHED, .96% \( (n = 2) \) of them were enrolled in PHED, and 2.87% \( (n = 6) \) of them were enrolled in CHED. Furthermore, Table 3.5 shows the pre-service teachers’ distribution according to university and major.

**Table 3.5**

*Pre-service Teachers’ Distribution according to University and Major*

<table>
<thead>
<tr>
<th>University</th>
<th>FLE</th>
<th>CEIT</th>
<th>EME</th>
<th>ESE</th>
<th>MHED</th>
<th>PHED</th>
<th>CHED</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>44</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
<td>41.63</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>7.18</td>
</tr>
<tr>
<td>C</td>
<td>36</td>
<td>37</td>
<td>26</td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
<td>107</td>
<td>51.20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>80</td>
<td>15</td>
<td>43</td>
<td>26</td>
<td>37</td>
<td>2</td>
<td>6</td>
<td>209</td>
<td></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>38.2</td>
<td>7.18</td>
<td>20.57</td>
<td>12.44</td>
<td>17.70</td>
<td>.96</td>
<td>2.87</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Adequacy of the sample size and the multivariate normality assumptions were checked before the factor analysis. When the literature was reviewed, it was seen that there are different views on the adequate sample size for factor analysis. According to Hair, Anderson, Tatham and Black (1995) the sample size should be at least 100, however, Tabachnick and Fidell (2007) stated that this number should be at least 300. Moreover, there are other viewpoints regarding with the ratio of sample size to the number of items in the scale. While Cattell (1978) stated that the sample size should be 3 to 6 times of the number of items, Gorsuch (1983) suggested that the sample size should be at least 5 times of the number of items. Furthermore, Everitt (1975) expressed that the minimum ratio should be 10. By considering the recommendations of Hair et al. (1995), Cattell (1978) and Gorsuch (1983), a sample size of $N = 209$ was considered to be sufficient for the 38-item scale.

In order to reveal the distribution and determine the extraction method, multivariate normality assumption was checked. According to Fabrigar, Wegener, MacCallum and Strahan (1999), maximum likelihood is suggested to be used as the extraction method when the data set has a relatively normal distribution. However, they stated that if the assumption of multivariate normality is violated, principal axis factoring should be utilized. To examine the multivariate normality assumption, DeCarlo’s (1997) SPSS macro was used. According to Mardia’s test, multivariate normality was violated (Mardia’s test= 572.42, $N(b2p) = 15.56$, $p = .00$). Due to the fact that the distribution of the data was not normal (Costello & Osborne, 2005), principal axis factoring was used.

Based on the findings regarding the sample size and multivariate normality assumptions, exploratory factor analysis with principal axis factoring was used in order to determine the factor structure of perceptions on effective teacher attributes to omit the items which were not measuring the intended construct (Field, 2009). Moreover, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and the Barlett’s test of sphericity were checked before the analysis. The KMO Measure of Sampling Adequacy of .92 was marvelous according to the guideline suggested by Kaiser and
Rice (1974). Similarly, Bartlett’s test was significant \( \chi^2 = 5728.84, p = .00 \). Table 3.6 shows the results of the KMO Measure of Sampling Adequacy and Bartlett’s test of sphericity. The result of the Bartlett’s test showed that the correlation matrix was different than the identity matrix which means the rejection of the null hypothesis suggesting that the correlation matrix is an identity matrix (Field, 2009). Thus, according to Tabachnick and Fidell (2007), a factor analysis was adequate to use.

Table 3.6

*The KMO Measure of Sampling Adequacy and Bartlett’s Test of Sphericity for the Initial Exploratory Factor Analysis*

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .92 |
| Bartlett’s Test of Sphericity | Approx. Chi-Square | 5728.84 |
| df | 703 |
| p | .00 |

Lorenzo-Seva (1999) stated that rotation methods enable researchers to interpret findings by simplifying the factor loading matrix. According to Gorsuch (1983) and Schmitt and Sass (2011) oblique rotation methods are more adequate for studies in social sciences since the factors are considered to be correlated. Expecting correlation between factors, direct oblimin was used as the rotation method. A principal axis factoring with direct oblimin rotation resulted in seven factors which have eigenvalues greater than 1. However, the pattern matrix showed that only two items were loaded on the sixth and seventh factors. Besides, the scree plot was showing a two-factor structure. Figure 3.3 shows the scree plot of the factors.

The factor analysis was repeated by fixing the number of factors to two. However, it was seen that the analysis did not reveal meaningful results in that items related with personal attributes were separated to two dimensions. Then, the analysis was repeated by fixing the number of factors to one. The factor explained 41.2% of the total variance. All items, were loaded on the factors at .39 or above. Since the 1st, 2nd, and 3rd items were relatively weaker than the others (whose factor loadings were .44, .41, and .39, respectively), these items were excluded from the instrument.
The results of the pilot study helped understanding the factor structures and omitting the items. The final version of the scale included 35 items on one dimension. After these three items were removed, the exploratory factor analysis was repeated. The results of the analysis showed that the KMO Measure of Sampling Adequacy of .928 was marvelous (Kaiser & Rice, 1974) and Bartlett’s test was significant ($\chi^2 = 5321.163, p = .00$). Therefore, a factor analysis was adequate to use (Tabachnick & Fidell, 2007). The results of the KMO Measure of Sampling Adequacy and Bartlett’s test of sphericity can be seen from Table 3.7.

Table 3.7

The KMO Measure of Sampling Adequacy and Bartlett’s Test of Sphericity for the Second Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>.928</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>5321.163</td>
</tr>
<tr>
<td>$df$</td>
<td>595</td>
</tr>
<tr>
<td>$p$</td>
<td>.00</td>
</tr>
</tbody>
</table>
Table 3.8

*Items and Factor Loadings from One-Factor Solution with Direct Oblimin Rotation: Eigenvalues and Percentage of Variance*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETA26</td>
<td>.80</td>
</tr>
<tr>
<td>ETA32</td>
<td>.77</td>
</tr>
<tr>
<td>ETA28</td>
<td>.77</td>
</tr>
<tr>
<td>ETA29</td>
<td>.74</td>
</tr>
<tr>
<td>ETA34</td>
<td>.73</td>
</tr>
<tr>
<td>ETA7</td>
<td>.73</td>
</tr>
<tr>
<td>ETA25</td>
<td>.72</td>
</tr>
<tr>
<td>ETA30</td>
<td>.72</td>
</tr>
<tr>
<td>ETA22</td>
<td>.72</td>
</tr>
<tr>
<td>ETA20</td>
<td>.72</td>
</tr>
<tr>
<td>ETA14</td>
<td>.70</td>
</tr>
<tr>
<td>ETA21</td>
<td>.70</td>
</tr>
<tr>
<td>ETA33</td>
<td>.69</td>
</tr>
<tr>
<td>ETA27</td>
<td>.68</td>
</tr>
<tr>
<td>ETA9</td>
<td>.68</td>
</tr>
<tr>
<td>ETA13</td>
<td>.68</td>
</tr>
<tr>
<td>ETA12</td>
<td>.68</td>
</tr>
<tr>
<td>ETA18</td>
<td>.68</td>
</tr>
<tr>
<td>ETA31</td>
<td>.67</td>
</tr>
<tr>
<td>ETA17</td>
<td>.66</td>
</tr>
<tr>
<td>ETA16</td>
<td>.65</td>
</tr>
<tr>
<td>ETA38</td>
<td>.64</td>
</tr>
<tr>
<td>ETA8</td>
<td>.62</td>
</tr>
<tr>
<td>ETA24</td>
<td>.62</td>
</tr>
<tr>
<td>ETA6</td>
<td>.61</td>
</tr>
<tr>
<td>ETA37</td>
<td>.61</td>
</tr>
<tr>
<td>ETA23</td>
<td>.59</td>
</tr>
<tr>
<td>ETA11</td>
<td>.55</td>
</tr>
<tr>
<td>ETA15</td>
<td>.55</td>
</tr>
<tr>
<td>ETA10</td>
<td>.54</td>
</tr>
<tr>
<td>ETA19</td>
<td>.53</td>
</tr>
<tr>
<td>ETA4</td>
<td>.51</td>
</tr>
<tr>
<td>ETA35</td>
<td>.51</td>
</tr>
<tr>
<td>ETA36</td>
<td>.51</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
<td>15.70</td>
</tr>
<tr>
<td>% of Variance</td>
<td>43.32</td>
</tr>
</tbody>
</table>
According to the factor analysis of 35 items, one factor explained 43.315% of the total variance, and the factor had an eigenvalue of 15.70. All items were loaded on one factor with a factor load of .506 or above. According to Hair, Black, Babin, Anderson and Tatham (2010) factor loadings of .30 to .40 was accepted as a rule of thumb. Table 3.8 shows the factor matrix for the final factor analysis.

3.3.2.2 Attitudes towards Teaching Profession Scale (ATTP)

The ATTP was administered to 241 undergraduate students enrolled in teacher training programs in University A, University B and University C. Of the 241 data, only 219 of them were useable. 6.91% \((n = 15)\) of the pre-service teachers were from University B, 53.00% \((n = 115)\) of them were from University C and 40.10% \((n = 87)\) were from University A. Table 3.9 presents the pre-service teachers’ distribution according to university and the gender.

<table>
<thead>
<tr>
<th>University</th>
<th>Female</th>
<th>Male</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>70</td>
<td>17</td>
<td>87</td>
<td>40.10</td>
</tr>
<tr>
<td>B</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td>6.91</td>
</tr>
<tr>
<td>C</td>
<td>89</td>
<td>26</td>
<td>115</td>
<td>53.00</td>
</tr>
</tbody>
</table>

Examining the participants’ grade level, it was seen that 41.20% \((n = 89)\) of the participants were 2\(^{nd}\) graders, 27.78% \((n = 60)\) of them were 3\(^{rd}\) graders, 30.10% \((n = 65)\) of them were 4\(^{th}\) graders and .93% \((n = 2)\) of them were 5\(^{th}\) graders.

<table>
<thead>
<tr>
<th>University</th>
<th>2(^{nd})</th>
<th>3(^{rd})</th>
<th>4(^{th})</th>
<th>5(^{th})</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>24</td>
<td>20</td>
<td>41</td>
<td></td>
<td>85</td>
<td>39.35</td>
</tr>
<tr>
<td>B</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td></td>
<td>16</td>
<td>7.41</td>
</tr>
<tr>
<td>C</td>
<td>55</td>
<td>37</td>
<td>21</td>
<td>2</td>
<td>115</td>
<td>53.24</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>60</td>
<td>65</td>
<td>2</td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>41.20</td>
<td>27.78</td>
<td>30.10</td>
<td>.93</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.10 presents the pre-service teachers’ distribution according to university and the grade level.

Moreover, 20.18% ($n = 44$) of the participants were enrolled in EME, 12.84% ($n = 28$) of them were enrolled in ESE, 18.81% ($n = 41$) of them were enrolled in MHED, .92% ($n = 2$) of them were enrolled in PHED, and 2.75% ($n = 6$) of them were enrolled in CHED. Table 3.11 shows the pre-service teachers’ distribution according to university and major.

Table 3.11
Pre-service Teachers’ Distribution according to University and Major

<table>
<thead>
<tr>
<th>University</th>
<th>FLE</th>
<th>CEIT</th>
<th>EME</th>
<th>ESE</th>
<th>MHED</th>
<th>PHED</th>
<th>CHED</th>
<th>$n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>44</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>C</td>
<td>37</td>
<td>1</td>
<td>28</td>
<td>41</td>
<td>2</td>
<td>6</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>16</td>
<td>44</td>
<td>28</td>
<td>41</td>
<td>2</td>
<td>6</td>
<td>218</td>
</tr>
<tr>
<td>%</td>
<td>37.16</td>
<td>7.34</td>
<td>20.18</td>
<td>12.84</td>
<td>18.81</td>
<td>.92</td>
<td>2.75</td>
<td>100</td>
</tr>
</tbody>
</table>

Before the analysis, adequacy of the sample size and the multivariate normality assumptions were checked. Based on the views of Hair et al. (1995), Cattell (1978) and Gorsuch (1983), a sample size of $N = 219$ was considered to be sufficient for the 23 item-scale. In order to examine the multivariate normality assumption, DeCarlo’s (1997) SPSS macro was used. According to Mardia’s test, multivariate normality was violated (Mardia’s test= 572.42, $N(b^2p) = 15.56, p = .00$). Since the distribution of the data was not normal (Costello & Osborne, 2005), principal axis factoring was utilized.

Based on the findings regarding the sample size and multivariate normality assumptions, exploratory factor analysis with principal axis factoring was used in order to determine the factor structure of attitudes towards teaching profession and to extract the items which were not measuring the intended construct (Field, 2009). Moreover, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and the Barlett’s test of sphericity were checked before the analysis. The KMO Measure of Sampling Adequacy of .90 was marvelous according to the guideline suggested by Kaiser and
Rice (1974). Similarly, Bartlett’s test was significant ($\chi^2 = 2515.758, p = .00$). Table 3.12 shows the results of the KMO Measure of Sampling Adequacy and Bartlett’s test of sphericity.

Table 3.12

The KMO Measure of Sampling Adequacy and Bartlett’s Test of Sphericity for the Initial Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>.90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s Test of Sphericity</td>
<td>Approx. Chi-Square 2515.76</td>
</tr>
<tr>
<td></td>
<td>$df$ 253</td>
</tr>
<tr>
<td></td>
<td>$p$.00</td>
</tr>
</tbody>
</table>

Based on the result of the Bartlett’s test, the correlation matrix was found to be different than the identity matrix which means the rejection of the null hypothesis suggesting that the correlation matrix is an identity matrix (Field, 2009). Therefore, according to Tabachnick and Fidell (2007) a factor analysis was adequate to use. Since the correlation between factors was expected, direct oblimin was used as the rotation method (Gorsuch, 1983; Scmitt & Sass, 2011).

![Scree Plot of the ATTP Scale](image)

*Figure 3.4 Scree Plot of the ATTP Scale*
A principal axis factoring with direct oblimin rotation resulted in four factors with eigenvalues more than one. However, when the pattern matrix was examined, it was seen that none of the items were loaded on the fourth factor. Similarly, the scree plot was suggesting a three-factor structure. Figure 3.4 shows the scree plot for this scale. The factor analysis was repeated by fixing the number of factors to three. It was observed that when the number of factors was fixed to three, the analysis revealed more meaningful results. These three factors explained 48.45% of the total variance. The factors one to three had eigenvalues of 8.36, 2.24 and 2.08, respectively. All items were loaded on the factors at .485 or above. However, when the items were analyzed, it was seen that although they were not measuring the same construct, all the reverse items (3rd, 7th, 18th and 22nd items) came together and formed a dimension. And, some items were loaded on different dimensions than the ones they were assigned to. The analysis was repeated after omitting the 3rd, 7th and 18th items. The 14th item loaded on the Competency Beliefs towards Teaching Profession and Loving the Teaching Profession factors with factor loadings .35 and .29, respectively. Since the item had a crossloading problem, it was extracted from the scale, as well. The results of the pilot study helped understanding the factor structures and revising the items. The final version of the scale included 19 items on three dimensions. After the four problematic items were removed, the exploratory factor analysis was carried out again. The results revealed that the KMO Measure of Sampling Adequacy of .91 was marvelous (Kaiser & Rice, 1974) and Bartlett’s test was significant ($\chi^2 = 2113.438, p = .00$). Therefore, a factor analysis was adequate to use (Tabachnick & Fidell, 2007). These values can be seen in Table 3.13.

Table 3.13

The KMO Measure of Sampling Adequacy and Bartlett’s Test of Sphericity for the Second Exploratory Factor Analysis

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | .91 |
| Bartlett’s Test of Sphericity | Approx. Chi-Square | 2113.44 |
| | df | 171 |
| | $p$ | .00 |
According to the factor analysis of 19 items, three factors explained 50.445% of the total variance. The factors one to three had eigenvalues of 7.77, 2.17 and 1.21, respectively. All items were loaded on the factors at .43 or above.

When the pattern matrix was examined, it was seen that two of the items had crossloading problems. The first item was the 15th item “I can follow my students’ progress.” which loaded on both Competency Beliefs towards Teaching Profession and Values Attached to Teaching Profession factors with a factor loading of .52, and .40, respectively. The second one was the 9th item “I believe I will be a good teacher” which loaded on both Competency Beliefs towards Teaching Profession and Loving the Teaching Profession factors with a factor loading of .43, and .39, respectively.

Table 3.14

*Items and Factor Loadings from Three-Factor Solution with Direct Oblimin Rotation: Eigenvalues and Percentage of Variance*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Factor Loading</th>
<th>CBTTP</th>
<th>VATP</th>
<th>LTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>A21</td>
<td></td>
<td>.72</td>
<td>-.10</td>
<td>-.09</td>
</tr>
<tr>
<td>A13</td>
<td></td>
<td>.72</td>
<td>-.04</td>
<td>.11</td>
</tr>
<tr>
<td>A1</td>
<td></td>
<td>.56</td>
<td>.09</td>
<td>.27</td>
</tr>
<tr>
<td>A5</td>
<td></td>
<td>.53</td>
<td>.05</td>
<td>.28</td>
</tr>
<tr>
<td>A17</td>
<td></td>
<td>.53</td>
<td>.25</td>
<td>.26</td>
</tr>
<tr>
<td>A15</td>
<td></td>
<td>.52</td>
<td>.40</td>
<td>.03</td>
</tr>
<tr>
<td>A11</td>
<td></td>
<td>.44</td>
<td>.33</td>
<td>.11</td>
</tr>
<tr>
<td>A9</td>
<td></td>
<td>.43</td>
<td>.22</td>
<td>.39</td>
</tr>
<tr>
<td>A12</td>
<td></td>
<td>.01</td>
<td>.73</td>
<td>-.14</td>
</tr>
<tr>
<td>A20</td>
<td></td>
<td>.13</td>
<td>.70</td>
<td>-.16</td>
</tr>
<tr>
<td>A16</td>
<td></td>
<td>-.00</td>
<td>.67</td>
<td>.20</td>
</tr>
<tr>
<td>A23</td>
<td></td>
<td>-.07</td>
<td>.62</td>
<td>.00</td>
</tr>
<tr>
<td>A8</td>
<td></td>
<td>-.15</td>
<td>.60</td>
<td>.09</td>
</tr>
<tr>
<td>A4</td>
<td></td>
<td>.09</td>
<td>.58</td>
<td>.09</td>
</tr>
<tr>
<td>A19</td>
<td></td>
<td>.35</td>
<td>.56</td>
<td>-.12</td>
</tr>
<tr>
<td>A10</td>
<td></td>
<td>.11</td>
<td>.12</td>
<td>.57</td>
</tr>
<tr>
<td>A2</td>
<td></td>
<td>.31</td>
<td>.19</td>
<td>.52</td>
</tr>
<tr>
<td>A6</td>
<td></td>
<td>.25</td>
<td>.04</td>
<td>.50</td>
</tr>
<tr>
<td>A22</td>
<td></td>
<td>-.05</td>
<td>-.08</td>
<td>.48</td>
</tr>
</tbody>
</table>

| Eigenvalues | 7.77 | 2.17 | 1.21 |
| % of Variance | 38.54 | 8.64 | 3.27 |
Moreover, it was seen that all items, except one, loaded on the factors which they were written for. Although the 19th item “I can consider individual differences” was considered to be related with Competency Beliefs towards Teaching Profession factor, based on the results of the factor analysis, it was found to be loaded on the Values Attached to Teaching Profession factor with a factor loading of .556. Table 3.14 shows the pattern matrix.

Osborne (2015) stated that the factor correlation matrix shows correlations between the factors. Table 3.15 provides information on factor correlations.

Table 3.15

Factor Correlation Matrix from Three-Factor Solution with Direct Oblimin Rotation

<table>
<thead>
<tr>
<th>Factor</th>
<th>CBTTP</th>
<th>VATP</th>
<th>LTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBTTP</td>
<td>1.00</td>
<td>.44</td>
<td>.43</td>
</tr>
<tr>
<td>VATP</td>
<td>.44</td>
<td>1.00</td>
<td>.26</td>
</tr>
<tr>
<td>LTP</td>
<td>.43</td>
<td>.26</td>
<td>1.00</td>
</tr>
</tbody>
</table>

During the pilot study of the instrument, the researcher noted the important experiences on data collection. First, it was seen that the phrase number of semester related with participants’ demographic information in the first part of the instrument was not understood by the participants. Second, since some of the items in the second part of the instrument did not include the phrase education-themed movie, some of the participants tended to report their experiences on movies other than the education-themed ones. Finally, since the last four items of the “PETA” scale of the instrument were on another page, some participants did not see the items and left them empty.

Considering the read-aloud sessions, expert opinions, observations during data collection and the analysis of the pilot study, the instruments were revised in terms of their structures and the items included. The final version of demographic information form consisted of four items in the first part, and five items in the second part. In order to prevent confusion, some of the items were rephrased, however, none of the
them were deleted. In the first part, the phrase *number of semester* was restated as *number of semester spent on the department except the prep-school*. Furthermore, the phrase *if you have seen an education-themed movie before* was added to the 2nd, 3rd, 4th and 5th items of the second part. Three items were deleted from the “PETA” scale, and the number of items were reduced to 35. Similarly, four items were deleted from the ATTP scale, and the final version of the scale consisted of 19 items. The final versions of the instruments were examined by the METU Human Subjects Ethics Committee, and given approval to be used in order to collect data from pre-service teachers (see Appendix A).

### 3.3.2.3 Validity and Reliability of the Instruments

In the following, validity and reliability analysis regarding the data collected through the instruments (i.e. “PETA” and ATTP scales) are provided.

#### 3.3.2.3.1 Validity of the Instruments

As stated by Fraenkel et al. (2015, p. 149), validity refers to “the appropriateness, correctness, meaningfulness and usefulness” of the data collected through instruments. In order to provide evidence for the validity of the data collected via the instruments, three types of validity evidences were considered, namely, face-validity, content validity and construct validity. The face-validity and content validity of the instruments were ensured by having judged the adequacy of the sampling and the format of the instruments including printing clarity, font size and clarity of instructions by the experts as suggested in Fraenkel et al. (2015). In order to provide evidence for content validity and face-validity, the instruments were developed based on a thorough review of the literature. Then, the instruments were tested with three interviewees enrolled in different teaching programs at University D, and expert opinion was received from six experts specialized in either Curriculum and Instruction or Measurement and Assessment. Revisions were made by considering the suggestions and comments received from the experts and interviewees. Moreover, in order to ensure the construct validity of the instruments, the variables
which are measured were defined carefully, items were written for these variables
and factor analysis was conducted to ensure the factor structure.

### 3.3.2.3.2 Reliability of the Instruments

In an attempt to find out whether the data collected through the instruments are reliable, Cronbach’s alpha coefficient was calculated for Perceptions on Effective Teacher Attributes ("PETA") and Attitudes towards Teaching Profession (ATP) scales. The Cronbach alpha coefficient was found to be .96 for the one-factor “PETA” scale. The analysis was repeated for each of the factors of the three-factor scale, ATP. Analysis of reliability resulted in Cronbach alpha coefficients of .89 for Competency Beliefs towards Teaching Profession (CBTTP), .83 for Values Attached to the Teaching Profession (VATP), and .69 for Loving the Teaching Profession (LTP). Although Nunnally (1978) stated that Cronbach’s alpha coefficient should be at least 0.70, Sekaran (2006) argued that the .70 range is considered to be acceptable. Also, according to Hair, Black, Babin and Anderson (2013), alpha values between .60 and .70 are considered to be the lower limit for acceptability. Therefore, alpha values of the dimensions CBTTP, VATP, and LPT were considered to be satisfying the threshold value for reliability.

### 3.3.2.4 Internal and External Validity of the Study

In the following sections, potential threats to internal validity of the study, the ways to overcome these threats and evidence for external validity of the study are presented.

#### 3.3.2.4.1 Internal Validity of the Study

Apart from validity of the scores obtained through the instruments, internal validity of the study was another important aspect to consider. According to Fraenkel et al. (2015), internal validity means that the differences observed on the dependent variables are caused only by the independent variable rather than other variables. In order to make sure the study’s internal validity, certain threats to internal validity
were considered and tried to be minimized as much as possible. Fraenkel et al. (2015) stated that mortality, location, instrumentation and instrument decay are the main threats in survey design research.

Mortality or loss of subject is one of the threats to internal validity of the study and it means losing some of the participants during the study (Fraenkel et al., 2015). The current study utilized a cross-sectional survey design which means that data were collected from a predetermined population at one time period (Fraenkel et al., 2015). Moreover, none of the participants who agreed to respond to the data collection instruments returned the instruments. Therefore, the study was not subject to mortality threat.

Location threat is defined as the possible impact of certain locations on the results of the study (Fraenkel et al., 2015). Since the data were collected at different locations at University D, the study might be subject to location threat. In order to minimize the location threat, all the data were collected in classrooms. Although there are differences among the classrooms, most of the classes in Education Faculty of University D in which the data were collected are similar in terms of physical conditions such as size, lightening, ventilation and heating, instructional materials (e.g. desks, whiteboard, bulletin boards), and technological equipment (e.g. computer, projector and smartboard). Moreover, because of the nature of the current study, location did not cause any kind of advantage or disadvantage on the participants.

According to Fraenkel et al. (2015), if the scores obtained through the instrument are not valid, it can lead to instrumentation threat to internal validity. After the data collection, face validity, content validity and construct validity of the instruments were checked through read-aloud sessions, expert opinions and factor analysis, respectively. Since the validity of the data collected by the instruments was ensured, this study was not subject to instrument threat.
As stated by Fraenkel et al. (2015), if the instrument or the scoring of the data is manipulated as the study progresses, it may lead to instrument decay threat to internal validity. During the data collection of the study, no changes were made in the data collection instruments. However, to eliminate this threat and to make sure the accuracy of data entry was not jeopardized by external factors such as fatigue, the data set was controlled twice after all the data were entered to SPSS and Office Excel programs.

In addition to these threats, subject characteristics, data collector characteristics and bias, history and subject attitude were considered to be possible threats to the internal validity of this study. Fraenkel et al. (2015, p. 168) explained subject characteristics threat as “the selection of people for a study may result in the individuals differing from one another in unintended ways that are related to the variables to be studied”. The data were collected from only the students enrolled in teaching programs at University D, where most of the subject characteristics such as maturity, intelligence, reading ability, ethnicity and socioeconomic status were similar.

According to Fraenkel et al. (2015), data collector characteristics such as gender, age or ethnical origin may affect the data collected from the participants and create a threat to the study’s internal validity if they are related to the variables which are investigated in the study. Since the researcher could not take part in the whole data collection process, a few researchers took part in distributing and collecting the instruments. Although the gender of these researchers was different, there were not any significant differences among the characteristics of data collectors. Moreover, the existing differences were not threat to the nature of the data collected from the participants. Thus, it can be stated that the characteristics of data collectors did not cause a threat to the internal validity of the study.

Similarly, Fraenkel et al. (2015) stated that in some cases data collectors or the scorers might cause the distortion of data for example by allowing more time for participants to respond to the instruments. In order to minimize data collector bias, the procedures for data collection was standardized as suggested by Fraenkel et al.
Before the data collection, separate meetings were held with the data collectors. Both written and verbal information was shared with data collectors and they were reminded about the duration of the data collection procedure, the seating arrangement and the extent to which they are allowed to interact with the participants. Through these meetings the data collection process was tried to be standardized as much as possible. After the data collection, a follow-up meeting was held with data collectors in order to learn about how the data collection process went and the problems they faced with, if any, while collecting the data so as to make sure all participants were provided with equal amount of time and knowledge.

Another possible threat to internal validity is history which is defined as the impact of unplanned events which occur during data collection on the participants’ responses (Fraenkel et al., 2015). As stated before, after the data collection, meetings were held with the researchers who took part in collecting the data in order to make sure the circumstances under which the data were collected were similar to one another. Neither the researcher herself nor the other data collectors reported any kind of unexpected or unplanned incidents that occurred during the data collection. Therefore, it is assumed that the study was not subject to history threat either.

Fraenkel et al. (2015) further explained that the attitude of participants i.e. how they perceive a study may create a threat to internal validity of the study, as well. In order to eliminate this threat, the study was conducted under standardized conditions as suggested by Fraenkel et al. (2015). Through the meetings held with data collectors, it was made sure that all participants were informed about the purpose of the study and were provided with the same amount of information regarding what was expected from them. The participants were stated that participation to the study is on a voluntary basis and that they can stop responding to the instruments whenever they want. They were also ensured about the confidentiality and anonymity of the responses they provided. Then, informed consent forms (see Appendix C) were filled by the participants. Finally, information on the participants and on the details regarding the study (e.g. the place and time of the implementation and the unplanned
events took place during the implementation) was obtained so as to control attitude of subjects threat to internal validity (Fraenkel et al., 2015).

### 3.3.2.4.2 External Validity of the Study

Fraenkel et al. (2015) further stated that the external validity of the study is related to the extent to which the findings of a study can be generalized to a population. In order to ensure the present study’s external validity, both population generalizability and ecological generalizability were considered. According to Fraenkel et al. (2015), population generalizability is associated with the sample’s representativeness of the population. They stated that to be able to make generalizations in studies utilizing nonrandom sampling, data should be presented to show that the sample represents the population on at least some of the relevant variables. Moreover, the sample should be depicted in depth so as to enable other researchers to determine the extent to which the results are applicable to other studies/individuals (Fraenkel et al., 2015).

In this study, the majority of the students enrolled in 2nd, 3rd and 4th grades of Elementary Mathematics Education, Elementary Science Education, Mathematics Education, Physics Education, Chemistry Education, English Language Teaching and Computer Education and Instructional Technology programs at University D were reached and included in the sample. Therefore, the sample is considered to be representative of the target population, and the findings can be generalized to pre-service teachers with similar characteristics.

On the other hand, ecological generalizability is defined as the extent to which the findings can be generalized to different settings or situations. As declared earlier, the study was carried out at University D, and all data were collected in regular classrooms. During the data collection, no manipulation was done to the classroom environment, no intervention was made or no materials, except for the data collection instruments, were utilized. The findings of the study can be generalized to other studies conducted under similar conditions. Considering the evidences provided for the population and ecological generalizability of the study, it can be concluded that the study’s external validity was ensured.
3.4 Data Collection Procedure

Before the collection of data, an application was done to the Human Subjects Ethics Committee in University D during the fall semester of the academic year 2018-2019 in order to receive necessary approvals for data collection instruments. Data for the main study were collected during the spring semester of the academic year 2018-2019 from teacher candidates studying at University D. Starting in the last week of March 2019, data collection was finished in the first week of May 2019. In total, this procedure was completed in seven weeks.

The courses and classes from which the data would be collected were determined conveniently and permissions were received from academics in order to collect data in their classes. A few researchers took part in data collection process. Before the data collection, each researcher was informed about the purpose of the study, the instruction that should be given to the participants and to what extent they are allowed to interact with the participants. The participants were asked to respond to the instruments which aim to acquire knowledge about their demographic information, determine their attitudes towards teaching profession and perceptions on the attributes of effective teachers. Before the data collection, they were informed that participation to the study was voluntary and they were free to stop responding to the instruments whenever they want to. All instruments, including the demographic information form, “PETA” scale and ATTP scale, were administered in one session which lasted 15 to 20 minutes.

3.5 Data Analysis Procedure

After the data were collected, the instruments were checked in order to omit problematic ones. The data obtained through the first part of the demographic information form, “PETA” scale and ATTP scale were entered to SPSS, and the ones obtained through the second part of the demographic information form were entered to Microsoft Excel. All data were screened in order to detect misentries.
The Statistical Package for the Social Sciences (SPSS) was used for analyzing the quantitative data (IBM Corp, 2016), and both descriptive and inferential statistics were utilized in the analyses. Before these analyses, preliminary analysis was carried out, and 27 cases were removed since they were not usable. Then, Little’s Missing Completely at Random test was performed. Since the missing data were missing completely at random (MCAR), mean substitution, one of the most commonly utilized method, was used for the missing values (Hair et al., 2013).

The data obtained through the demographic information form regarding the characteristics of the participants (i.e. gender, major and grade level) were investigated by utilizing descriptive statistics. For the qualitative data, which were obtained in an attempt to answer the first research question, descriptive content analysis was utilized. According to Fraenkel et al. (2015, p. 476), it is used in order to “study human behavior in an indirect way, through an analysis of their communications”. In order to use this method, information gathered from the participants was examined and converted into categories. More clearly, first, pre-service teachers’ responses were entered to Excel, and the movies reported by the participants were investigated to determine whether they were education-themed movies or not. After deleting the irrelevant ones, the education-themed movies seen by the participants were listed. Second, for each movie, the number of participants who have seen it, and where the participants have seen the movie was determined. Third, for each movie, the reasons why participants have seen it more than once, and the reasons why they were influenced by it were investigated. The participants’ responses were grouped under categories.

Assumptions of one-way multivariate analysis of variance (MANOVA) such as the appropriateness of the data set, absence of univariate and multivariate outliers, univariate and multivariate normality, absence of multicollinearity, and homogeneity of variance and covariance matrices were checked (Field, 2009; Hair et al., 2013; Tabachnick & Fidell, 2012) prior to the analysis. Based on the assumption check, the data set was appropriate for the analysis since the dependent variables, pre-service
teachers’ perceptions on effective teacher attributes and their attitudes towards teaching profession, were measured at the interval scale, independent variables consisted of at least two categorical and independent groups, independence of observations was ensured, and the sample size was adequate. Skewness and kurtosis values, Q-Q plots of the dependent variables, and the histogram of the distribution of mean scores of attitudes held by pre-service teachers towards teaching profession provided evidence for univariate normality of the data set. Moreover, Mardia’s test indicated that the multivariate normality assumption was met. Box’s M test, conducted for independent variables, showed that there was no violation of the homogeneity of covariance matrices assumption. Similarly, Levene’s test revealed that homogeneity of variance assumption was met. In addition, Pearson correlation coefficient between dependent variables indicated absence of multicollinearity. Lastly, since the data set was screened before the analysis, there were no violation of absence of univariate and multivariate outlier assumptions. Detailed information regarding the assumptions of MANOVA was provided in Chapter 4 under 4.3 Assumptions of Multivariate Analysis of Variance (MANOVA) section. Since the assumptions were met, in total, five MANOVAs in relation to the second and fourth research questions and the related sub-research question were run to examine the individual influence of each independent variable, namely seeing an education-themed movie, number of education-themed movies seen, gender, major and grade level on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession.

Then, in relation to the third research question, both descriptive analysis and inferential statistics were utilized. First, descriptive analysis was conducted to identify pre-service teachers’ perceptions on effective teacher attributes and their attitudes towards the profession. Second, Pearson correlation coefficient was calculated in order to determine whether there was a relationship between perceptions on effective teacher attributes and attitudes towards teaching profession.
3.6 Assumptions of the Study

A convenience sampling was used, and a sample of pre-service teachers from all majors at University D, except early childhood education, was included in the study. Therefore, it is assumed that the sample represents the accessible population. Furthermore, participants were ensured about their anonymity and the confidentiality of their data, and the names of the universities where the data were collected were not reported. For that reason, it is assumed that they responded to the instruments honestly.

3.7 Limitation of the Study

University D was conveniently selected among other public universities in Ankara, and only the 2nd, 3rd and 4th year pre-service teachers attending to FLE, CEIT, EME, ESE, MHED, PHED and CHED were included in the study. Therefore, the sample used in this study may not represent all teacher candidates in Ankara, and the results cannot be generalized to the whole population of pre-service teachers in Turkey.
CHAPTER 4

RESULTS

In this chapter, the results obtained in the study are presented. First, preliminary analysis, including data screening, is described. Second, the characteristics of the participants (i.e. gender, major, and grade level) are demonstrated in order to describe the profile of the pre-service teachers. Third, pre-service teachers’ experience with education-themed movies (i.e. whether they have seen an education-themed movie and the number of education-themed movies they have seen) is presented. Fourth, the assumptions and the results of the analysis of Multivariate Analysis of Variance (MANOVA) pertaining to the second research question are reported. Fifth, the findings regarding pre-service teachers’ perceptions on attributes of effective teachers, their attitudes towards teaching profession and the relationship between these variables are mentioned. Then, the assumptions and the findings of the MANOVAs regarding the fourth research question are given. Lastly, a brief summary of the results of the study is provided at the end of the chapter.

4.1 Preliminary Analysis

Before conducting the main analyses, the accuracy of the data entry and the presence of missing data were investigated. 27 cases were removed from the data set since they were not usable. Then, Little’s Missing Completely at Random test was performed. Since the data were missing completely at random (MCAR), mean substitution was used for completing the missing values (Hair et al., 2013). Then, both univariate and multivariate outliers were checked. In order to examine the univariate outliers, z scores of the mean scores of dependent variables i.e. perceptions on effective teacher attributes and attitudes towards teaching profession were separately calculated. When the z scores were examined, it was seen that there
was no score above the standardized score of 3.29 and below -3.29 for the pre-service teachers’ attitudes towards teaching profession implying that there were no univariate outliers (Tabachnick & Fidell, 2012). However, two cases had z scores below the standardized score of -3.29 for the pre-service teachers’ perceptions on effective teacher attributes implying that they might be outliers (Tabachnick & Fidell, 2012). These two cases were eliminated from the data set (Ak, 2008). After deleting the univariate outliers, Mahalonobis distance ($D^2$) was calculated in order to determine the multivariate outliers. Based on this, 2 cases were found to be exceeding the critical chi square value of 13.82 ($df = 2, p = .001$). Therefore, these cases were deleted from the data set, as well.

4.2 Characteristics of the Participants

In order to investigate the characteristics of the participants, quantitative methods i.e. descriptive statistics were utilized. In total of 427 pre-service teachers responded to the data collection instruments administered in a single session. However, only the data gathered from 396 pre-service teachers were usable.

Table 4.1

**Characteristics of the Participants regarding Their Gender, Major and Grade Levels**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Groups</th>
<th>$n$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>315</td>
<td>79.55</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>81</td>
<td>20.45</td>
</tr>
<tr>
<td>Major</td>
<td>FLE</td>
<td>177</td>
<td>44.70</td>
</tr>
<tr>
<td></td>
<td>CEIT</td>
<td>40</td>
<td>10.10</td>
</tr>
<tr>
<td></td>
<td>EME</td>
<td>77</td>
<td>19.44</td>
</tr>
<tr>
<td></td>
<td>ESE</td>
<td>81</td>
<td>20.45</td>
</tr>
<tr>
<td></td>
<td>SSME</td>
<td>21</td>
<td>5.30</td>
</tr>
<tr>
<td>Grade Level</td>
<td>2nd Grade</td>
<td>108</td>
<td>27.27</td>
</tr>
<tr>
<td></td>
<td>3rd Grade</td>
<td>166</td>
<td>41.92</td>
</tr>
<tr>
<td></td>
<td>4th and 5th Grade</td>
<td>122</td>
<td>30.81</td>
</tr>
</tbody>
</table>

Out of 396 participants, 79.55% ($n = 315$) were female and 20.45% ($n = 81$) were male. Among them, 44.70% ($n = 177$) were enrolled in FLE, 20.45% ($n = 81$) were enrolled in ESE, 19.44% ($n = 77$) were enrolled in EME, 10.10% ($n = 40$) were
enrolled in CEIT, and 5.30% \( (n = 21) \) were enrolled in SSME. When the grade levels of the respondents were examined, it was seen that 41.92% \( (n = 166) \) of them were 3rd graders, 30.81% \( (n = 122) \) of them were 4th and 5th graders, and 27.27% \( (n = 108) \) of them were 2nd graders. Table 4.1 presents the pre-service teachers’ characteristics regarding their gender, major and grade levels. Although the demographic information form also included an item for pre-service teachers to report the number of semesters they have spent in their departments except the prep-school, the item was not comprehended by the participants and the data obtained for the semester variable were not used in the study.

### 4.3 Experiences of Pre-service Teachers with Education-themed Movies

The first research question aimed to investigate pre-service teachers’ experiences with education-themed movies regarding the number of participants who have seen an education-themed movie before, the names of the education-themed movies seen by pre-service teachers, the reason for seeing a movie more than once and the reason for being impacted by a movie. To this end, the data collected through the demographic information form were analyzed by utilizing both quantitative and qualitative methods.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Groups</th>
<th>( n )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeing an Education-themed Movie</td>
<td>Yes</td>
<td>371</td>
<td>93.69</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>25</td>
<td>6.31</td>
</tr>
<tr>
<td>Number of Education-themed Movies Seen</td>
<td>0</td>
<td>25</td>
<td>6.31</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>83</td>
<td>20.96</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>117</td>
<td>29.55</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>85</td>
<td>21.46</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>52</td>
<td>13.13</td>
</tr>
<tr>
<td></td>
<td>5 or more</td>
<td>34</td>
<td>8.59</td>
</tr>
</tbody>
</table>

Based on the pre-service teachers’ responses, 93.69% \( (n = 371) \) of them have seen at least one education-themed movie before, and 6.31% \( (n = 25) \) of the participants
have not seen an education-themed movie. Among these participants, 29.55\% (n = 117) of them have seen two education-themed movies, 21.46\% (n = 85) of them have seen three education-themed movies, 20.96\% (n = 83) of them have seen one education-themed movie, 13.13\% (n = 52) of them have seen four education-themed movies, and 8.59\% (n = 34) of them have seen five or more education-themed movies. Table 4.2 presents the pre-service teachers’ characteristics regarding their experiences with education-themed movies.

To further investigate pre-service teachers’ experience with education-themed movies, their responses to the open-ended questions were subjected to descriptive content analysis. First, the name and the number of the education-themed movies the respondents have seen were identified. Next, for each movie, the number of participants who have seen it was counted. Then, the responses were examined to find out whether they have seen a movie more than once and to identify the reasons behind re-watching it. To this end, participants’ responses were grouped under several categories. Finally, in an attempt to understand whether pre-service teachers were impacted by education-themed movies and to clarify the reasons behind being influenced, the same process was followed, and categories were formed for the responses provided by pre-service teachers.

Examining the responses, among the movies the participants have seen, 36 of them were identified as education-themed movies based on the operational definition made for the current study. These movies were about special education (i.e. education of impaired students and students with learning disabilities like dyslexia), barriers to education (i.e. language barrier and financial status), student-teacher relationships, classroom management and instructional methods, effective teacher attributes (i.e. personal and professional attributes) and education systems (i.e. information and criticism on education system). Table 4.3 presents the name of the education-themed movies seen by the participants, the number of participants who have seen these movies, and where they have seen them.
Table 4.3

The Name of the Education-themed Movies, the Number of Pre-service Teachers Who Have Seen These Movies and Where They Have Been Seen

<table>
<thead>
<tr>
<th>Name of the Movie</th>
<th>Number of Viewers</th>
<th>Place It Was Seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taare Zameen Par</td>
<td>221</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Dead Poets Society</td>
<td>170</td>
<td>In and out of class</td>
</tr>
<tr>
<td>İki Dil Bir Bavul</td>
<td>103</td>
<td>In and out of class*</td>
</tr>
<tr>
<td>Ron Clark Story</td>
<td>91</td>
<td>In and out of class</td>
</tr>
<tr>
<td>3 Idiots</td>
<td>80</td>
<td>In and out of class*</td>
</tr>
<tr>
<td>Good Will Hunting</td>
<td>72</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Freedom Writers</td>
<td>46</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Stand and Deliver</td>
<td>43</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Detachment</td>
<td>24</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Les Choristes</td>
<td>18</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Entres les Murs</td>
<td>9</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Black</td>
<td>8</td>
<td>In and out of class</td>
</tr>
<tr>
<td>Gifted</td>
<td>8</td>
<td>Out of class</td>
</tr>
<tr>
<td>Whiplash</td>
<td>5</td>
<td>Out of class</td>
</tr>
<tr>
<td>Mona Lisa Smile</td>
<td>5</td>
<td>Out of class</td>
</tr>
<tr>
<td>Front of the Class</td>
<td>4</td>
<td>Out of class</td>
</tr>
<tr>
<td>Home</td>
<td>2</td>
<td>In class</td>
</tr>
<tr>
<td>Köy Enstitüleri Belgeseli</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>School of Rock</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>Bad Teacher</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>To Sir, with Love</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>White Man's Last Burden</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>Phoebe in Wonderland</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>Dangerous Minds</td>
<td>2</td>
<td>Out of class</td>
</tr>
<tr>
<td>Blackboard Jungle</td>
<td>1</td>
<td>In class</td>
</tr>
<tr>
<td>Great Debaters</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Selam</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Öğretmen</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Not One Less</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Toprağın Çocukları</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Music of Heart</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Le Plus Beau Métier Du Monde</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Coach Carter</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Yücel’in Çiçekleri</td>
<td>1</td>
<td>Out of class</td>
</tr>
<tr>
<td>Only the Strongest</td>
<td>1</td>
<td>Out of class</td>
</tr>
</tbody>
</table>

* Seen both in high school and university
As seen in Table 4.3, of the education-themed movies watched, some of them (*e.g.* Taare Zameen Par, Dead Poets Society, İki Dil Bir Bavul) stood out as the most popular ones among the pre-service teachers, whereas some movies were seen by only few participants. Among the movies reported by pre-service teachers, 2 of them (i.e. Home, and Blackboard Jungle) were only seen in a class either in high school or university, 22 of them (i.e. Gifted, Whiplash, Mona Lisa Smile, Front of the Class, Köy Enstitüleri Belgeseli, Not One Less, Toprağın Çocukları, Music of Heart, Le Plus Beau Métier Du Monde, Coach Carter, Yücel’in Çiçekleri, Great Debaters, Only the Strongest, Bad Teacher, Benim Dünyam, Phoebe in Wonderland, To Sir, with Love, White Man’s Last Burden, School of Rock, Dangerous Minds, Öğretmen and Selam) were only seen outside the class, and 12 of them (i.e. Taare Zameen Par, Dead Poets Society, İki Dil Bir Bavul, Ron Clark Story, 3 Idiots, Good Will Hunting, Freedom Writers, Stand and Deliver, Detachment, Les Choristes, Entres les Murs and Black) were seen both in and outside a class (i.e. dormitory, home, or cinema).

When the participants’ responses were analyzed, it was seen that 18 of the education-themed movies, which are Entres les Murs, Whiplash, Mona Lisa Smile, Home, Köy Enstitüleri Belgeseli, Bad Teacher, To Sir, with Love, White Man’s Last Burden, School of Rock, Dangerous Minds, Öğretmen, Blackboard Jungle, Selam, Toprağın Çocukları, Le Plus Beau Métier Du Monde, Great Debaters, and Only the Strongest, were only seen once. Furthermore, 18 of the education-themed movies, which are Taare Zameen Par, Dead Poets Society, İki Dil Bir Bavul, Ron Clark Story, 3 Idiots, Good Will Hunting, Freedom Writers, Stand and Deliver, Detachment, Les Choristes, Black, Gifted, Front of the Class, Benim Dünyam, Phoebe in Wonderland, Not One Less, Music of Heart and Yücel’in Çiçekleri, were seen more than once. Based on their responses, the participants have seen these movies more than once because of several reasons.

After examining the responses that pre-service teachers provided, it was seen that most of them have seen an education-themed movie before since they liked watching movies about education, were interested in Indian movies or some of the actors
playing in these movies. Besides, it was found out that there are other reasons why pre-service teachers have seen these movies more than once. These reasons were grouped under eight categories: storyline and messages, teacher characteristics, criticism on education system, being relatable, characters, being informative, being guiding and motivating, and being used as an instructional material. Some of the pre-service teachers stated that they watched these movies more than once since their storyline and the messages given in the movies were impressive, inspiring and broadening individuals’ horizons. They also stated that these movies showed how education was carried out in real life, how individuals were educated based on patterns instead of their wills or talents, how individuals could change through proper education, how teachers could help children regain their confidence, and the way teachers created rapport with students. According to their responses, these teacher candidates were intrigued to see the development of students, the teacher profiles represented in these movies, the teachers’ attributes and attitudes towards the students, and the relationships built between teachers and students, as well. As stated by the pre-service teachers, the fact that these movies make criticisms on education system made them re-watch these movies, and they helped individuals discover the problems of education systems through summarizing today’s education system and representing its mistakes. Furthermore, having a great influence on guiding and helping one make life decisions, being relatable to one’s live, the fact that these movies were exemplifying how teaching profession should be carried out, and how education should be like caused participants to watch these movies again. Besides the intrinsic reasons, some candidates have seen these movies twice or more since they were used as an instructional material in different classes or assigned as a course requirement. Also, the responses that do not fall into these categories were labeled as other reasons. These were pre-service teachers’ will to show the movies to their families and friends, to remember their contents, to approach them from another perspective after gaining experience and awareness on education, and to make connections between the movie and the classes taken. Among the respondents, some of them said that despite not seeing them more than once, they want to watch these movies again since they were impacted by their storyline and want to remember
them. Moreover, pre-service teachers have a desire to re-watch these movies as they believe that movies give a different point of view and provide an adequate critique of the society. Lastly, some participants reported that they would like to see more education-themed movies.

Afterwards, the responses were investigated in order to find out whether the pre-service teachers were influenced by these movies and the reasons why the movies influenced them. Based on the responses, 26 of the education-themed movies, which are Taare Zameen Par, Dead Poets Society, İki Dil Bir Bavul, Ron Clark Story, 3 Idiots, Good Will Hunting, Freedom Writers, Stand and Deliver, Detachment, Les Choristes, Entres les Murs, Black, Gifted, Mona Lisa Smile, Front of the Class, Home, Köy Enstitüleri Belgeseli, Benim Dünyam, Phoebe in Wonderland, Dangerous Minds, Blackboard Jungle, Toprağın Çocukları, Music of Heart, Le Plus Beau Métier Du Monde, Coach Carter, and Only the Strongest, influenced some of the participants who have seen them.

According to the participants’ responses, most of them have been influenced by these movies. When the reasons why pre-service teachers were influenced by these movies were investigated, five categories emerged. These categories were teacher characteristics, storyline and the messages, being relatable and guiding, criticism on education system, and being informative about education, classroom and school environment, and teaching profession. Teacher characteristics in terms of the teachers’ relationships with their students, their efforts for helping students improve themselves, how they helped students discover their wills and talents, their attitudes towards students, the instructional methods they used, and the fact that the teachers did not only give lectures but also touched students’ lives had an influence on pre-service teachers who have seen these movies. According to the respondents, the storyline and the messages given in these movies influenced them, as well. They noted that these education-themed movies were influential in that they were showing how inadequate teachers and the education system, which focuses on rote memorization, could make students’ lives difficult, how teachers can change the lives
of students, that everyone can achieve when they are given an opportunity and emphasizing that all children have their own characteristics and talents, and they can be successful if they are guided based on their strengths. Additionally, respondents stated that they were impressed to see teachers’ struggle against difficult conditions and the results of their efforts. Among the respondents, some of them stated that these education-themed movies were influential as they were relatable to individuals’ lives, and guiding since they showed the problems teachers can come across while pursuing the profession. Furthermore, the participants were impressed either because they had someone with dyslexia at home or in the neighborhood, or because the teachers set a role model for them. Another reason why pre-service teachers were impacted was the criticisms on education system made in the movies. Based on their responses, these movies were highlighting the problems in the education system, criticizing the education system which focused on rote-learning and how students were assessed, and showing the problems of the education system and the obstacles that teachers might face with. In addition, pre-service teachers were influenced by these movies since they were informative about education, teaching profession, and classroom and school environment. According to their responses, these movies were pointing out to the necessity and importance of inclusive education, showing that care and love are at the forefront of education, emphasizing the difference between education and instruction, and informing about problem solving and classroom management. Through these movies, teacher candidates were also informed about how effective teachers should be like, the impact of teachers’ attitudes and perspectives on students, the fact that each child has a special talent and teachers should care about the students and guide them based on their talents rather than giving lectures, and how challenging teaching profession can be. Moreover, showing that being a teacher was not only about transmitting knowledge but also touching students’ lives, and the fact that the main characters were teachers who broadened students’ horizons and made positive impacts on their educational lives impressed pre-service teachers. Finally, some of the participants stated that they were influenced by the movie since they like watching movies about teaching profession. However, 10 of the education-themed movies, which are Whiplash, Bad Teacher, To
Sir, with Love, White Man's Last Burden, School of Rock, Öğretmen, Selam, Not One Less, Yücel’ın Çiçekleri, and Great Debaters, were not considered as the most influential education-themed movies by the participants. Besides, except Not One Less and Yücel’ın Çiçekleri, these movies were not seen more than once.

4.4 Influence of Education-themed Movies on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

The second research question aimed to investigate the influence of education-themed movies on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession. The independent variables were seeing an education-themed movies and number of education-themed movies seen by pre-service teachers. The influence of each independent variable was examined separately by conducting one-way Multivariate Analysis of Variance (MANOVA) after checking the assumptions of one-way MANOVA. These assumptions are having interval or ratio scale of measurement on the dependent variables, having an independent variable which consists of two or more levels, having independent observations, adequacy of sample size, absence of univariate and multivariate outliers, univariate and multivariate normality, absence of multicollinearity, and homogeneity of variance and covariance matrices (Field, 2009; Hair et al., 2013; Tabachnick & Fidell, 2012).

First of all, the appropriateness of the data set was determined in terms of having at least two dependent variables which were on a continuous scale. Both pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession were measured at the interval scale by using 5-point Likert type scales indicating that the assumption was met. Second, each of the independent variables consisted of at least two categorical and independent groups (i.e. the independent variable ‘seeing an education-themed movie’ had two levels i.e. the ones who haven’t seen an education-themed movie, and the ones who have seen at least one education-themed movie, and ‘number of education-themed movies seen by pre-service teachers’ had six levels).
Independence of observations assumption was met since data were collected from independent and separate participants, and there was not a relationship among the observations in each group. According to Hair et al. (2013), in order the conduct MANOVA, the minimum sample size in each cell should be greater than the number of dependent variables. Moreover, a recommended minimum sample size for each cell is stated as 20 observations. Since there were only two dependent variables in this study, which are perceptions on effective teacher attributes and attitudes towards teaching profession, and at least 20 observations in each cell, the sample size assumption was met.

Table 4.4

**Skewness and Kurtosis Values**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Skewness Statistic</th>
<th>SE</th>
<th>Kurtosis Statistic</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception on Effective Teacher Attributes</td>
<td>-1.37</td>
<td>.12</td>
<td>.94</td>
<td>.25</td>
</tr>
<tr>
<td>Attitudes towards Teaching Profession</td>
<td>-.70</td>
<td>.12</td>
<td>.05</td>
<td>.25</td>
</tr>
</tbody>
</table>

The univariate normality assumption was checked by examining skewness and kurtosis values, Shapiro-Wilk’s W and Kolmogorov-Smirnov D test results, Q-Q plots and histograms. Skewness and kurtosis values for the dependent variables were between -3 and +3. So, the data obtained from the pre-service teachers had a normal distribution according to skewness and kurtosis, and normality assumption was not violated. Table 4.4 presents skewness and kurtosis values.

Table 4.5

**Kolmogorov-Smirnov and Shapiro-Wilk Values**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Kolmogorov-Smirnov Statistic</th>
<th>df</th>
<th>p</th>
<th>Shapiro-Wilk Statistic</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception on Effective Teacher Attributes</td>
<td>.20</td>
<td>396</td>
<td>.00</td>
<td>.81</td>
<td>396</td>
<td>.00</td>
</tr>
<tr>
<td>Attitudes towards Teaching Profession</td>
<td>.09</td>
<td>396</td>
<td>.00</td>
<td>.96</td>
<td>396</td>
<td>.00</td>
</tr>
</tbody>
</table>
In addition to the skewness and kurtosis values, Kolmogorov-Smirnov D and Shapiro-Wilk’s W tests were conducted in order to check normality. Kolmogorov-Smirnov and Shapiro-Wilk tests indicated that normality assumption was violated. The results of these tests are presented in Table 4.5.

In order to present more evidence on normality of the distribution, Q-Q plots and histograms were examined. Based on the Q-Q plots, distributions are slightly normal indicating that the normality assumption is satisfied. When the histograms were checked, it was seen that the distribution of mean scores of pre-service teachers’ attitudes towards teaching profession was slightly normal. However, that of pre-service teachers’ perceptions on effective teacher attributes was skewed indicating a violation of the normality assumption. To sum up, although the assumption of normality was violated based on the Kolmogorov-Smirnov D test, Shapiro-Wilk’s W test results and the histogram of mean scores of pre-service teachers’ perceptions on effective teacher attributes, it can be stated that skewness and kurtosis values, Q-Q plots and histogram of mean scores of pre-service teachers’ attitudes towards teaching profession provide evidence for normal distribution. Moreover, the assumption of multivariate normality was analyzed by using Mardia’s test. Since the result of Mardia’s test was not significant ($b^2p = 9.05, p = .009$), the multivariate normality assumption was met (Tabachnick & Fidell, 2012).

Table 4.6

*The Results of Box’s Test of Equality of Covariance Matrices*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Box’s M</th>
<th>$F$</th>
<th>$df_1$</th>
<th>$df_2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeing an Education-themed Movie</td>
<td>.82</td>
<td>.27</td>
<td>3</td>
<td>20387.50</td>
<td>.85</td>
</tr>
<tr>
<td>Number of Education-themed Movies Seen</td>
<td>5.96</td>
<td>.39</td>
<td>15</td>
<td>118262.22</td>
<td>.98</td>
</tr>
</tbody>
</table>

In order to examine the homogeneity of covariance matrices assumption, Box’s M test was utilized. The results of Box’s M tests conducted for each independent variable showed no violation of the assumption. Table 4.6 presents Box’s Test results.
Homogeneity of variance assumption was checked by using Levene’s test. The results of the tests revealed no violation of the assumption since level of significance for each variable was greater than .05. Table 4.7 shows Levene’s Test results.

Table 4.7

Levene’s Test Results of Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>$F$</th>
<th>df1</th>
<th>df2</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>Seeing an Education-themed Movie</td>
<td>.00</td>
<td>1</td>
<td>394</td>
<td>.97</td>
</tr>
<tr>
<td></td>
<td>Number of Education-themed Movies Seen</td>
<td>.79</td>
<td>5</td>
<td>390</td>
<td>.56</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>Seeing an Education-themed Movie</td>
<td>.87</td>
<td>1</td>
<td>394</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>Number of Education-themed Movies Seen</td>
<td>.58</td>
<td>5</td>
<td>390</td>
<td>.72</td>
</tr>
</tbody>
</table>

The assumption of absence of multicollinearity was checked by calculating the correlation coefficient between dependent variables. To be able to conduct MANOVA, the dependent variables should have a moderate correlation with each other, and the correlation should not be greater than .90 in order not to violate multicollinearity assumption. Pearson correlation coefficient was found to be .36 indicating no multicollinearity. Finally, since outliers were checked and eliminated before the analysis, the assumption of absence of univariate and multivariate outliers was met.

4.4.1 Influence of Seeing an Education-themed Movie on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

Pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession was examined according to seeing an education-themed movie by conducting a one-way MANOVA. There were two dependent variables (perceptions on effective teacher attributes and attitudes towards teaching profession), and one independent variable (seeing an education-themed movie) with
two levels (have seen an education themed movie and have not seen an education-themed movie). Since there are multiple dependent variables, performing MANOVA was preferred instead of conducting separate ANOVAs for each dependent variable to control the inflation of Type I error and to examine the relationship among dependent variables which is ignored in ANOVA (Field, 2009).

Table 4.8 presents the descriptive statistics results including mean values and standard deviations of participants. The results indicated that perceptions of pre-service teachers who have seen an education-themed movie on effective teacher attributes \((M = 4.74)\) were almost equal to the perceptions of pre-service teachers who have not \((M = 4.73)\). Moreover, pre-service teachers who have seen such a movie tended to have more positive attitudes towards the profession \((M = 4.01)\) than the ones who have not \((M = 3.68)\).

Table 4.8

Descriptive Statistics for Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession according to Seeing an Education-themed Movies

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Seeing an Education-themed Movie</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>Yes</td>
<td>4.74</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>4.73</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.74</td>
<td>.31</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>Yes</td>
<td>4.01</td>
<td>.61</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3.68</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.99</td>
<td>.61</td>
</tr>
</tbody>
</table>

Since the result of Box’s M test for homogeneity of covariance matrices was not significant, a one-way MANOVA with Wilk’s Lambda approximation was performed to determine the effect of experience with education themed movies on the two dependent variables, perception on effective teacher attributes and attitudes towards teaching profession. The analysis resulted in significant differences in the combination of pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession based on experience with education-themed
movies, Wilk’s Λ = .98, F (2, 393) = 3.72, p < .05, η² = .02, demonstrating small effect according to Cohen (1988).

Univariate analyses of variances were carried out as follow-up tests to MANOVA in order to identify how each dependent variable differs with respect to seeing an education-themed movie. Performing multiple ANOVAs inflate experimentwise error rates. Thus, Bonferroni correction was made, in order to prevent this inflation. The correction was carried out by dividing the alpha level (.05) by the number of dependent variables (i.e. perceptions on effective teacher attributes and attitudes towards teaching profession), and each ANOVA was tested at the .025 significance level. The result of the analysis was not significant indicating that the mean scores of pre-service teachers’ perceptions on effective teacher attributes was equal for each group, F (1, 394) = .01, p > .025. However, the ANOVA on the mean score of pre-service teachers’ attitudes towards teaching profession was significant, F (1, 394) = 6.68, p < .025, η² = .02.

Table 4.9

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience with Movies</td>
<td>DV1*</td>
<td>0.00</td>
<td>1</td>
<td>.00</td>
<td>.01</td>
<td>.92</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>DV1*</td>
<td>38.33</td>
<td>394</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>DV1*</td>
<td>38.33</td>
<td>395</td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>DV2**</td>
<td>144.16</td>
<td>394</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*: Perceptions on effective teacher attributes
**: Attitudes towards teaching profession

Attitude towards teaching profession scores of pre-service teachers who have seen an education-themed movie before (M = 4.01, SD = .61) were statistically higher than that of pre-service teachers who have not seen an education-themed movie before (M = 3.68, SD = .54). Table 4.9 above shows the findings of ANOVAs.
4.4.2 Influence of the Number of Education-themed Movies Seen on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

Pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession was examined according to the number of education-themed movies seen by conducting a one-way MANOVA. There were two dependent variables, and one independent variable (number of education-themed movies seen) with six levels (0, 1, 2, 3, 4, and 5 or more). Since there are multiple dependent variables, performing MANOVA was preferred instead of conducting separate ANOVAs for each dependent variable to control the inflation of Type I error, and to examine the relationship among dependent variables which ANOVA cannot show (Field, 2009). The mean values and standard deviations of participants are presented in Table 4.10.

Table 4.10

Descriptive Statistics for Perceptions on Effective Teacher Attributes and Attitudes Towards Teaching Profession according to the Number of Education-themed Movies Seen

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Number of Movies</th>
<th>M</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>0</td>
<td>4.73</td>
<td>.29</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>4.73</td>
<td>.31</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4.73</td>
<td>.32</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4.71</td>
<td>.32</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4.79</td>
<td>.28</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>5 or more</td>
<td>4.77</td>
<td>.34</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.74</td>
<td>.31</td>
<td>396</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>0</td>
<td>3.68</td>
<td>.54</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3.94</td>
<td>.61</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3.95</td>
<td>.63</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4.03</td>
<td>.63</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4.10</td>
<td>.52</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>5 or more</td>
<td>4.16</td>
<td>.60</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.99</td>
<td>.61</td>
<td>396</td>
</tr>
</tbody>
</table>
The results indicated that pre-service teachers who have seen 4 education-themed movies have more positive perceptions on effective teacher attributes than others. Furthermore, it was seen that as the number of education-themed movies seen increases, pre-service teachers’ attitudes scores increase, as well. Based on the Table 4.10, attitudes of pre-service teachers who have seen 5 or more movies are more positive than others.

Since the result of Box’s M test for homogeneity of covariance matrices was not found significant, a one-way MANOVA with Wilk’s Lambda approximation was performed in order to determine the effect of the number of education-themed movies seen by pre-service teachers on the two dependent variables. The analysis did not result in significant differences in pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession based on the number of education-themed movies seen, Wilk’s $\Lambda = .96$, $F (10, 778) = 1.53$, $p > .05$. Follow-up tests were not carried out since it was found that the number of education-themed movies seen did not have an influence on the dependent variables.

### 4.5 Pre-service Teachers’ Perceptions on Effective Teacher Attributes, Their Attitudes towards Teaching Profession and the Relationship between Perceptions and Attitudes

The third research question aimed to investigate pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession. In order to determine the pre-service teachers’ perceptions on the attributes possessed by effective teachers and their attitudes towards the profession, descriptive statistics were used. For each item, mean, standard deviation and frequency was calculated. Items’ mean scores ranging from 1 to 1.79 refer to “strongly disagree”, from 1.80 to 2.59 refers to “partially agree”, 2.60 to 3.39 refers to “neither agree nor disagree”, 3.40 to 4.19 refers to “mostly agree”, and 4.20 to 5 refers to “strongly agree”. Pre-service teachers’ responses are presented in terms of mean scores, standard deviations and frequency of agreement (“strongly agree” and “mostly agree”), impartiality (“neither agree nor disagree”) and disagreement (“strongly disagree” and
“partially agree”). Then, in order to examine the relationship between pre-service teachers’ perceptions on effective teacher attributes and attitudes towards the profession, Pearson correlation coefficient was calculated. For this research question, the findings regarding the pre-service teachers’ perceptions on attributes possessed by effective teachers, their attitudes towards the profession, and the relationship between their perceptions and attitudes were examined separately.

4.5.1 Pre-service Teachers’ Perceptions on Effective Teacher Attributes

In relation to the third research question, one of the purposes was to examine pre-service teachers’ perceptions on effective teacher attributes. The descriptive analysis showed that the perceptions of pre-service teachers on the attributes possessed by effective teachers were positive, and majority of the respondents agreed on the items. Among the items, the participants agreed the most to the item 11 “support students” ($M = 4.91, SD = .30$), item 10 “respect students’ talents” ($M = 4.88, SD = .34$), item 17 “make clear and understandable explanations” ($M = 4.87, SD = .39$), and item 14 “approach individual differences with tolerance” ($M = 4.86, SD = .37$). The descriptive statistics including mean, standard deviation, and frequency of agreement and disagreement to the items are presented in Table 4.11. According to the table, respondents agreed on some of the items relatively lesser than the rest. These items were the item 12 “appeal to students’ needs for belonging/being loved” ($M = 4.56, SD = .67$), item 33 “communicate the goals they established to students” ($M = 4.56, SD = .70$), item 8 “believe all students can succeed” ($M = 4.50, SD = .74$), item 30 “show that what they teach is fun/enjoyable” ($M = 4.47, SD = .79$), and item 20 “enable students to spend more time on in-class activities” ($M = 4.42, SD = .75$). Overall, although respondents’ level of agreement on the items varies, pre-service teachers’ perceptions on effective teacher attributes are highly positive.
Table 4.11

Descriptive Statistics for Pre-service Teachers’ Perceptions on Effective Teacher Attributes

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>n1*</th>
<th>n2**</th>
<th>n3***</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. support students</td>
<td>4.91</td>
<td>.30</td>
<td>0</td>
<td>1</td>
<td>395</td>
</tr>
<tr>
<td>10. respect students’ talents</td>
<td>4.88</td>
<td>.34</td>
<td>0</td>
<td>2</td>
<td>394</td>
</tr>
<tr>
<td>17. make clear and understandable explanations</td>
<td>4.87</td>
<td>.39</td>
<td>1</td>
<td>1</td>
<td>394</td>
</tr>
<tr>
<td>14. approach individual differences with tolerance</td>
<td>4.86</td>
<td>.37</td>
<td>0</td>
<td>4</td>
<td>392</td>
</tr>
<tr>
<td>9. believe all students have different talents</td>
<td>4.84</td>
<td>.43</td>
<td>1</td>
<td>5</td>
<td>390</td>
</tr>
<tr>
<td>13. make students feel accepted as individuals</td>
<td>4.84</td>
<td>.41</td>
<td>1</td>
<td>4</td>
<td>391</td>
</tr>
<tr>
<td>31. listen students carefully when they speak</td>
<td>4.84</td>
<td>.42</td>
<td>0</td>
<td>7</td>
<td>389</td>
</tr>
<tr>
<td>1. make eye contact with students</td>
<td>4.83</td>
<td>.43</td>
<td>1</td>
<td>5</td>
<td>390</td>
</tr>
<tr>
<td>15. know how to communicate with students with different characteristics</td>
<td>4.81</td>
<td>.45</td>
<td>1</td>
<td>6</td>
<td>389</td>
</tr>
<tr>
<td>25. give feedback on students’ performances/work</td>
<td>4.81</td>
<td>.44</td>
<td>1</td>
<td>5</td>
<td>390</td>
</tr>
<tr>
<td>5. give a place to students’ opinions in his/her classes</td>
<td>4.79</td>
<td>.45</td>
<td>0</td>
<td>7</td>
<td>389</td>
</tr>
<tr>
<td>6. encourage students to express their feelings and opinions</td>
<td>4.79</td>
<td>.45</td>
<td>0</td>
<td>7</td>
<td>389</td>
</tr>
<tr>
<td>23. prepare learning environments which are appropriate to students’ needs</td>
<td>4.79</td>
<td>.44</td>
<td>0</td>
<td>4</td>
<td>392</td>
</tr>
<tr>
<td>16. inform students about the scope of the class</td>
<td>4.78</td>
<td>.47</td>
<td>0</td>
<td>10</td>
<td>386</td>
</tr>
<tr>
<td>35. evaluate the adequacy of the planned teaching-learning process by observing students</td>
<td>4.78</td>
<td>.43</td>
<td>0</td>
<td>3</td>
<td>393</td>
</tr>
<tr>
<td>18. use a variety of instructional methods, techniques and strategies</td>
<td>4.77</td>
<td>.50</td>
<td>3</td>
<td>2</td>
<td>391</td>
</tr>
<tr>
<td>19. use a variety of assessment methods</td>
<td>4.76</td>
<td>.50</td>
<td>2</td>
<td>7</td>
<td>387</td>
</tr>
<tr>
<td>29. show what they teach is valuable</td>
<td>4.76</td>
<td>.55</td>
<td>2</td>
<td>12</td>
<td>382</td>
</tr>
<tr>
<td>2. encourage students to participate to the class</td>
<td>4.75</td>
<td>.52</td>
<td>2</td>
<td>8</td>
<td>386</td>
</tr>
<tr>
<td>26. create eagerness to learn in students</td>
<td>4.75</td>
<td>.56</td>
<td>3</td>
<td>12</td>
<td>381</td>
</tr>
<tr>
<td>27. believe in themselves</td>
<td>4.75</td>
<td>.53</td>
<td>3</td>
<td>9</td>
<td>384</td>
</tr>
<tr>
<td>32. establish realistic goals</td>
<td>4.74</td>
<td>.53</td>
<td>1</td>
<td>11</td>
<td>384</td>
</tr>
<tr>
<td>28. enjoy what they do</td>
<td>4.73</td>
<td>.57</td>
<td>3</td>
<td>14</td>
<td>379</td>
</tr>
</tbody>
</table>
Table 4.11 (continued.)

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>n1*</th>
<th>n2**</th>
<th>n3***</th>
</tr>
</thead>
<tbody>
<tr>
<td>34. follow another path when the planned teaching-learning process is not appropriate</td>
<td>4.73</td>
<td>.50</td>
<td>1</td>
<td>8</td>
<td>387</td>
</tr>
<tr>
<td>22. adjust the pace of the instruction according to the difficulty of the subject</td>
<td>4.72</td>
<td>.54</td>
<td>3</td>
<td>9</td>
<td>384</td>
</tr>
<tr>
<td>4. consider students’ criticisms</td>
<td>4.71</td>
<td>.53</td>
<td>1</td>
<td>11</td>
<td>384</td>
</tr>
<tr>
<td>3. are open and honest in their relationships with students</td>
<td>4.70</td>
<td>.58</td>
<td>4</td>
<td>12</td>
<td>380</td>
</tr>
<tr>
<td>7. are at peace with themselves</td>
<td>4.67</td>
<td>.61</td>
<td>2</td>
<td>25</td>
<td>369</td>
</tr>
<tr>
<td>24. inform students about their academic developments</td>
<td>4.67</td>
<td>.56</td>
<td>1</td>
<td>15</td>
<td>380</td>
</tr>
<tr>
<td>21. adjust the pace of the instruction according to students’ learning speed</td>
<td>4.62</td>
<td>.62</td>
<td>3</td>
<td>21</td>
<td>372</td>
</tr>
<tr>
<td>12. appeal to students’ needs for belonging/being loved</td>
<td>4.56</td>
<td>.67</td>
<td>5</td>
<td>20</td>
<td>371</td>
</tr>
<tr>
<td>33. communicate the goals they established to student</td>
<td>4.56</td>
<td>.70</td>
<td>4</td>
<td>34</td>
<td>358</td>
</tr>
<tr>
<td>8. believe all students can succeed</td>
<td>4.50</td>
<td>.74</td>
<td>9</td>
<td>25</td>
<td>362</td>
</tr>
<tr>
<td>30. show that what they teach is fun/enjoyable</td>
<td>4.47</td>
<td>.79</td>
<td>8</td>
<td>40</td>
<td>348</td>
</tr>
<tr>
<td>20. enable students to spend more time on in-class activities</td>
<td>4.42</td>
<td>.75</td>
<td>5</td>
<td>46</td>
<td>345</td>
</tr>
</tbody>
</table>

*: number of participants who responded as “Strongly Disagree” and “Partially Agree”

**: number of participants who responded as “Neither Agree nor Disagree”

***: number of participants who responded as “Mostly Agree” and “Strongly Agree”
4.5.2 Pre-service Teachers’ Attitudes towards Teaching Profession

For the third research question, the second purpose was to examine pre-service teachers’ attitudes towards teaching profession. The analysis of the descriptive statistics revealed that pre-service teachers’ attitudes are generally positive. Among the items, the participants agreed the most to the item 16 “Teaching is an important profession that requires to be responsible” ($M = 4.85$, $SD = .39$), item 10 “Teaching is a profession that can contribute to the development of the society” ($M = 4.81$, $SD = .47$), and item 19 “Teaching is an important profession that requires to be altruistic” ($M = 4.73$, $SD = .57$). In the following, Table 4.12 shows the descriptive statistics such as mean, standard deviation, and frequency of agreement and disagreement to the items. The table further shows that pre-service teachers agreed on some of the items relatively lesser than the rest. Based on the responses of teacher candidates, they neither agreed nor disagreed to item 5 “I can pursue the teaching profession for a lifetime” ($M = 3.10$, $SD = 1.31$), and item 17 “Teaching is not a difficult profession for me” ($M = 3.00$, $SD = 1.18$). Also, the respondents only partially agreed to item 18 “I want to pursue a profession other than teaching, if I have an opportunity” ($M = 2.39$, $SD = 1.29$). Overall, though pre-service teachers only partially agreed or neither agreed nor disagreed on some of the items, they agreed on most of the items, and have positive attitudes towards the profession.

Then, participants’ agreement to the items were examined separately for each dimension of the scale, namely loving the teaching profession (LTP), competency beliefs towards teaching profession (CBTTP), and values attached to teaching profession (VATP). According to the table 4.5, participants agreed to item 2 “The idea of being a teacher makes me happy” ($M = 3.64$, $SD = 1.19$), and item 8 “I have chosen the teaching profession willingly” ($M = 3.46$, $SD = 1.40$), neither agreed nor disagreed to the item 5 “I can pursue the teaching profession for a lifetime” ($M = 3.10$, $SD = 1.31$), and disagreed to the item 18 “I want to pursue a profession other than teaching, if I have an opportunity” ($M = 2.39$, $SD = 1.29$) which are related to loving the teaching profession dimension.
Table 4.12

Descriptive Statistics for Pre-service Teachers’ Attitudes towards Teaching Profession

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>n1*</th>
<th>n2**</th>
<th>n3***</th>
</tr>
</thead>
<tbody>
<tr>
<td>VATP</td>
<td>16. Teaching is a profession that requires to be responsible.</td>
<td>4.85</td>
<td>.39</td>
<td>1</td>
<td>2</td>
<td>393</td>
</tr>
<tr>
<td>VATP</td>
<td>10. Teaching is a profession that will contribute to the development of the society.</td>
<td>4.81</td>
<td>.47</td>
<td>1</td>
<td>6</td>
<td>389</td>
</tr>
<tr>
<td>VATP</td>
<td>19. Teaching is a profession that requires to be altruistic.</td>
<td>4.73</td>
<td>.57</td>
<td>3</td>
<td>13</td>
<td>380</td>
</tr>
<tr>
<td>VATP</td>
<td>13. I find it a proud to guide people’s lives by pursuing the teaching profession.</td>
<td>4.58</td>
<td>.71</td>
<td>6</td>
<td>26</td>
<td>364</td>
</tr>
<tr>
<td>VATP</td>
<td>6. Teaching is a valuable profession.</td>
<td>4.55</td>
<td>.86</td>
<td>15</td>
<td>28</td>
<td>353</td>
</tr>
<tr>
<td>VATP</td>
<td>15. I can consider the individual differences.</td>
<td>4.53</td>
<td>.67</td>
<td>5</td>
<td>20</td>
<td>371</td>
</tr>
<tr>
<td>VATP</td>
<td>3. The more I learn about teaching profession, the better I understand its requirements.</td>
<td>4.43</td>
<td>.82</td>
<td>17</td>
<td>20</td>
<td>359</td>
</tr>
<tr>
<td>CBTTP</td>
<td>9. I can teach the knowledge that the students do not know about my field.</td>
<td>4.36</td>
<td>.78</td>
<td>13</td>
<td>28</td>
<td>355</td>
</tr>
<tr>
<td>CBTTP</td>
<td>12. I can monitor my students’ progress/developments.</td>
<td>4.26</td>
<td>.86</td>
<td>18</td>
<td>33</td>
<td>345</td>
</tr>
<tr>
<td>CBTTP</td>
<td>14. I can pursue the teaching profession based on its requirements.</td>
<td>4.09</td>
<td>.98</td>
<td>30</td>
<td>55</td>
<td>311</td>
</tr>
<tr>
<td>CBTTP</td>
<td>7. I believe I will be a good teacher.</td>
<td>3.94</td>
<td>1.05</td>
<td>41</td>
<td>66</td>
<td>289</td>
</tr>
<tr>
<td>CBTTP</td>
<td>1. I believe I will be successful at the teaching profession.</td>
<td>3.86</td>
<td>.97</td>
<td>37</td>
<td>73</td>
<td>286</td>
</tr>
<tr>
<td>CBTTP</td>
<td>4. I can overcome the obstacles I will come across in teaching profession.</td>
<td>3.74</td>
<td>.91</td>
<td>35</td>
<td>100</td>
<td>261</td>
</tr>
<tr>
<td>LTP</td>
<td>2. The idea of being a teacher makes me happy.</td>
<td>3.64</td>
<td>1.19</td>
<td>64</td>
<td>81</td>
<td>251</td>
</tr>
<tr>
<td>LTP</td>
<td>8. I have chosen the teaching profession willingly.</td>
<td>3.46</td>
<td>1.40</td>
<td>113</td>
<td>68</td>
<td>215</td>
</tr>
<tr>
<td>CBTTP</td>
<td>11. I have a special talent for the teaching profession.</td>
<td>3.44</td>
<td>1.15</td>
<td>69</td>
<td>136</td>
<td>191</td>
</tr>
<tr>
<td>LTP</td>
<td>5. I can pursue the teaching profession for a lifetime.</td>
<td>3.10</td>
<td>1.31</td>
<td>129</td>
<td>107</td>
<td>160</td>
</tr>
<tr>
<td>CBTTP</td>
<td>17. Teaching is not a difficult profession for me.</td>
<td>3.00</td>
<td>1.18</td>
<td>126</td>
<td>134</td>
<td>136</td>
</tr>
<tr>
<td>LTP</td>
<td>18. I want to pursue a profession other than teaching, if I have an opportunity.</td>
<td>2.39</td>
<td>1.29</td>
<td>222</td>
<td>93</td>
<td>81</td>
</tr>
</tbody>
</table>

*: number of participants who responded as “Strongly Disagree” and “Partially Agree”
**: number of participants who responded as “Neither Agree nor Disagree”
***: number of participants who responded as “Mostly Agree” and “Strongly Agree”
For the competency beliefs towards teaching profession dimension, it was seen that pre-service teachers agreed to item 9 “I can teach the knowledge/subjects that the students do not know about my field” ($M = 4.36$, $SD = .78$), item 12 “I can monitor my students’ progress/developments” ($M = 4.26$, $SD = .86$), item 14 “I can pursue the teaching profession based on its requirements” ($M = 4.09$, $SD = .98$), item 7 “I believe I will be a good teacher” ($M = 3.94$, $SD = 1.05$), item 1 “I believe I will be successful at the teaching profession” ($M = 3.86$, $SD = .97$), item 4 “I can overcome the obstacles I will come across in the teaching profession” ($M = 3.74$, $SD = .91$), and item 11 “I have a special talent for the teaching profession” ($M = 3.44$, $SD = 1.15$). And, they neither agreed not disagreed to item 17 “Teaching is not a difficult profession for me” ($M = 3.00$, $SD = 1.18$). Finally, the table 4.12 presents that pre-service teachers agreed to item 16 “Teaching is a profession that requires to be responsible” ($M = 4.85$, $SD = .39$), item 10 “Teaching is a profession that will contribute to the development of the society” ($M = 4.81$, $SD = .47$), item 19 “Teaching is a profession that requires to be altruistic” ($M = 4.73$, $SD = .57$), item 13 “I find it a proud to guide people’s lives by pursuing the teaching profession” ($M = 4.58$, $SD = .71$), item 6 “Teaching is a valuable profession” ($M = 4.55$, $SD = .86$), item 15 “I can consider the individual differences” ($M = 4.53$, $SD = .67$), and item 3 “The more I learn about the teaching profession, the better I understand its requirements” ($M = 4.43$, $SD = .82$) which are related to the values attached to the teaching profession dimension.

In addition to examining pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession, the relationship between the two variables was investigated. Pearson correlation coefficient was calculated in order to understand whether perceptions on effective teacher attributes and attitudes towards teaching profession are correlated with each other. The correlation coefficient was found to be $r = .36$, $p = .00$, indicating that there is a statistically significant, medium and positive relationship between these variables.
4.6 Influence of Various Variables on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

The fourth research question aimed to investigate the influence of various independent variables on pre-service teachers’ perceptions regarding the effective teacher attributes and attitudes towards teaching profession. These variables were gender, major, and grade level. The influence of each independent variable was separately examined by conducting three one-way Multivariate Analysis of Variance (MANOVA). Before the analyses, the assumptions of MANOVA were checked.

The assumptions of appropriateness of the data set, the independence of observations, the sample size, univariate and multivariate normality, and absence of multicollinearity and outliers were checked and the findings were reported in Chapter 4 under 4.4. The Influence of Education-themed Movies on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession section. Then, assumptions regarding the independent variables were checked individually. First, each of the independent variables consisted of at least two categorical, independent groups (i.e. the independent variable ‘gender’ had two levels, ‘major’ had five levels i.e. FLE, CEIT, EME, ESE and SSME, and ‘grade level’ had three levels i.e. 2nd, 3rd and 4th grades).

In order to examine the homogeneity of covariance matrices assumption, Box’s M test was utilized. The results of Box’s M tests conducted for each independent variable showed no violation of the assumption. Table 4.13 presents Box’s Test results.

Table 4.13

The Results of Box’s Test of Equality of Covariance Matrices

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Box’s M</th>
<th>$F$</th>
<th>$df$</th>
<th>$df2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.04</td>
<td>.34</td>
<td>3</td>
<td>303351.02</td>
<td>.79</td>
</tr>
<tr>
<td>Major</td>
<td>14.58</td>
<td>1.19</td>
<td>12</td>
<td>60882.71</td>
<td>.28</td>
</tr>
<tr>
<td>Grade Level</td>
<td>2.86</td>
<td>.47</td>
<td>6</td>
<td>2124134.39</td>
<td>.83</td>
</tr>
</tbody>
</table>
Homogeneity of variance assumption was checked by using Levene’s test. The results of the tests revealed no violation of the assumption since level of significance for each variable was greater than .05. Table 4.14 shows Levene’s Test results.

Table 4.14

Levene’s Test Results of Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>Gender</td>
<td>.94</td>
<td>1</td>
<td>394</td>
<td>.33</td>
</tr>
<tr>
<td></td>
<td>Major</td>
<td>1.60</td>
<td>4</td>
<td>391</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Grade Level</td>
<td>.99</td>
<td>2</td>
<td>393</td>
<td>.38</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>Gender</td>
<td>1.02</td>
<td>1</td>
<td>394</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>Major</td>
<td>1.96</td>
<td>4</td>
<td>391</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Grade Level</td>
<td>.03</td>
<td>2</td>
<td>393</td>
<td>.97</td>
</tr>
</tbody>
</table>

4.6.1 Influence of Gender on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

Pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession were examined according to gender by conducting a one-way MANOVA. There were two dependent variables, perceptions on attributes of effective teachers and attitudes towards teaching profession and one independent variable, gender. Since there are multiple dependent variables, performing MANOVA was preferred instead of conducting separate ANOVAs for each dependent variable to control the inflation of Type I error and to examine the relationship among dependent variables (Field, 2009).

Table 4.15 presents the descriptive statistics results including mean values and standard deviations. The results indicated that female pre-service teachers have more positive perceptions on the attributes possessed by effective teachers. Similarly, their attitudes towards teaching profession were found to be more positive than that of male pre-service teachers.
Table 4.15

**Descriptive Statistics for Perceptions on Effective Teacher Attributes and Attitudes Towards Teaching Profession according to Gender**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Gender</th>
<th>M</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>Female</td>
<td>4.76</td>
<td>.31</td>
<td>315</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>4.63</td>
<td>.30</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.74</td>
<td>.31</td>
<td>396</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>Female</td>
<td>4.07</td>
<td>.58</td>
<td>315</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>3.67</td>
<td>.63</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.99</td>
<td>.61</td>
<td>396</td>
</tr>
</tbody>
</table>

Since the result of Box’s M test for homogeneity of covariance matrices was not found significant, a one-way MANOVA with Wilk’s Lambda approximation was performed in order to determine the effect of gender on the two dependent variables. The analysis resulted in statistically significant differences in pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession based on gender, Wilk’s $\Lambda = .93$, $F(2, 393) = 15.88$, $p < .05$, $\eta^2 = .08$, demonstrating medium effect (Cohen, 1988).

Univariate analyses of variances (ANOVAs) were carried out as follow-up tests to MANOVA in order to identify how each dependent variable differs with respect to gender. In order to prevent inflation of experimentwise error rates resulting from conducting multiple ANOVAs, Bonferroni correction was made. The correction was carried out by dividing the alpha level (.05) by the number of dependent variables, and each ANOVA was tested at the .025 level of significance. The ANOVA on the perceptions on effective teacher attributes scores yielded significant results, $F(1, 394) = 11.54$, $p < .025$, $\eta^2 = .03$, showing small effect (Cohen, 1988). Based on this, female pre-service teachers’ perceptions on effective teacher attributes were statistically more positive ($M = 4.76$, $SD = .31$) than male pre-service teachers ($M = 4.63$, $SD = .30$).

Moreover, the ANOVA on the attitudes towards teaching profession scores was statistically significant, $F(1, 394) = 28.87$, $p < .025$, $\eta^2 = .07$, indicating medium
effect (Cohen, 1988). It was found that female pre-service teachers’ attitudes towards teaching profession were statistically more positive ($M = 4.07, SD = .58$) than male pre-service teachers ($M = 3.67, SD = .63$).

Table 4.16

*Influence of Gender on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession*

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>$F$</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>DV1*</td>
<td>1.09</td>
<td>1</td>
<td>1.09</td>
<td>11.54</td>
<td>.00</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>DV2**</td>
<td>10.01</td>
<td>1</td>
<td>10.01</td>
<td>28.87</td>
<td>.00</td>
<td>.07</td>
</tr>
<tr>
<td>Error</td>
<td>DV1*</td>
<td>37.24</td>
<td>394</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DV2**</td>
<td>136.60</td>
<td>394</td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>DV1*</td>
<td>38.33</td>
<td>395</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DV2**</td>
<td>146.61</td>
<td>395</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*: Perceptions on effective teacher attributes  
**: Attitudes towards teaching profession

Table 4.16 shows the findings of ANOVAs regarding the influence that gender has on perceptions of pre-service teachers on effective teacher attributes and their attitudes towards teaching profession.

4.6.2 Influence of Major on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

Pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession was examined according to the area of teaching by conducting a one-way MANOVA. There were two dependent variables, and one independent variable (major) with five levels (FLE, CEIT, EME, ESE, and SSME). Since there were two dependent variables, performing MANOVA was preferred instead of conducting separate ANOVAs to control the inflation of Type I error and to examine the relationship among dependent variables which is ignored in ANOVA (Field, 2009).

Table 4.17 presents the descriptive statistics results including mean values and standard deviations. The results indicated that pre-service teachers enrolled in EME
have slightly more positive perceptions on effective teacher attributes than the ones enrolled in other programs, and that the ones enrolled in ESE have more positive attitudes towards teaching profession than others. Based on the results presented in Table 4.17, it can be stated that pre-service teachers’ mean scores of perceptions on effective teacher attributes are higher than that of attitudes towards teaching profession.

Table 4.17

Descriptive Statistics for Perceptions on Effective Teacher Attributes and Attitudes Towards Teaching Profession according to Major

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Major</th>
<th>M</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>FLE</td>
<td>4.75</td>
<td>.31</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>CEIT</td>
<td>4.63</td>
<td>.30</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>EME</td>
<td>4.76</td>
<td>.28</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>ESE</td>
<td>4.72</td>
<td>.34</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>SSME</td>
<td>4.73</td>
<td>.33</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.74</td>
<td>.31</td>
<td>396</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>FLE</td>
<td>3.86</td>
<td>.61</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>CEIT</td>
<td>3.53</td>
<td>.61</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>EME</td>
<td>4.20</td>
<td>.50</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>ESE</td>
<td>4.23</td>
<td>.49</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>SSME</td>
<td>4.16</td>
<td>.61</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.99</td>
<td>.61</td>
<td>396</td>
</tr>
</tbody>
</table>

Since the result of Box’s M test for homogeneity of covariance matrices was not significant, one-way MANOVA with Wilk’s Lambda approximation was performed to determine the effect of major (FLE, CEIT, EME, ESE and SSME) on the two dependent variables. The analysis resulted in statistically significant differences in pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession based on major, Wilk’s Λ = .85, F (8, 780) = 8.57, p < .05, η² = .08 indicating a moderate effect according to Cohen (1988).

ANOVA were carried out as follow-up tests to MANOVA in order to identify how each dependent variable differs with respect to major. In order to prevent inflation of experimentwise error rates resulting in conducting multiple ANOVAs, Bonferroni
correction was made. The correction was carried out by dividing the alpha level (.05) by the number of dependent variables, and each ANOVA was tested at the .025 significance level. The result of the analysis was not statistically significant $F(4, 391) = 1.42, p > .025$, indicating that the mean scores of pre-service teachers’ perceptions on effective teacher attributes was almost equal for each group. However, the result of the analysis was significant $F(4, 391) = 15.61, p < .025, \eta^2 = .14$, large effect (Cohen, 1988), showing that the mean scores of pre-service teachers’ attitudes towards teaching profession differ based on major. Table 4.18 shows the findings of ANOVAs regarding the influence of major on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession.

Table 4.18

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>$SS$</th>
<th>$df$</th>
<th>$MS$</th>
<th>$F$</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>DV1*</td>
<td>.55</td>
<td>4</td>
<td>.14</td>
<td>1.42</td>
<td>.23</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>DV2**</td>
<td>20.19</td>
<td>4</td>
<td>5.05</td>
<td>15.61</td>
<td>.00</td>
<td>.14</td>
</tr>
<tr>
<td>Error</td>
<td>DV1*</td>
<td>37.78</td>
<td>391</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DV2**</td>
<td>126.42</td>
<td>391</td>
<td>.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>DV1*</td>
<td>38.33</td>
<td>395</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>DV2**</td>
<td>146.61</td>
<td>395</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*: Perceptions on effective teacher attributes  
**: Attitudes towards teaching profession

Since it is more conservative to Type I error, post hoc comparisons with Scheffe test were conducted to which comparisons among majors have significant differences (Hair et al., 2013). These comparisons indicated that the mean attitude score for pre-service teachers enrolled in SSME ($M = 4.16, SD = .61$) was statistically more positive from the ones enrolled in CEIT ($M = 3.53, SD = .61$). Similarly, it was found that pre-service teachers enrolled in EME ($M = 4.20, SD = .50$) and ESE ($M = 4.23, SD = .49$) had statistically more positive attitudes towards teaching profession than the ones enrolled in FLE ($M = 3.86, SD = .61$) and the ones enrolled in CEIT ($M = 3.53, SD = .61$). Moreover, the findings indicated that pre-service teachers enrolled in FLE ($M = 3.86, SD = .61$) had statistically more positive attitudes towards the
profession than the ones enrolled in CEIT ($M = 3.53$, $SD = .61$). Table 4.19 presents post hoc results.

Table 4.19

*Multiple Comparisons of Majors (Scheffe Post Hoc Test)*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) Major</th>
<th>(J) Major</th>
<th>$MD$ (I-J)</th>
<th>$SE$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards teaching profession</td>
<td>FLE</td>
<td>CEIT</td>
<td>.34</td>
<td>.10</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EME</td>
<td>-.34</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ESE</td>
<td>-.37</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>CEIT</td>
<td>EME</td>
<td>-.68</td>
<td>.11</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ESE</td>
<td>-.71</td>
<td>.11</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SSME</td>
<td>-.64</td>
<td>.15</td>
<td>.00</td>
</tr>
</tbody>
</table>

$p < .025$

**4.6.3 Influence of Grade Level on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession**

Pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession was examined according to grade by conducting a one-way MANOVA. There were two dependent variables, and one independent variable (grade) with three levels (2nd, 3rd, and 4th). Since there are more than one dependent variables, performing MANOVA was preferred instead of conducting separate ANOVAs to control the inflation of Type I error, and to examine the relationship among dependent variables (Field, 2009).

The mean values and standard deviations of participants are presented in Table 4.20 below. The results indicated that pre-service teachers enrolled in 3rd grades of their programs had more positive perceptions on effective teacher attributes than 2nd and 4th graders. Also, it was seen that the attitudes of pre-service teachers enrolled in 4th grades of their programs were more positive than the ones enrolled in 2nd and 3rd grades.
Table 4.20

Descriptive Statistics for Perceptions on Effective Teacher Attributes and Attitudes Towards Teaching Profession according to Grade Level

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grade</th>
<th>M</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions on effective teacher attributes</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>4.70</td>
<td>.31</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>4.75</td>
<td>.29</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>4.74</td>
<td>.33</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.74</td>
<td>.31</td>
<td>396</td>
</tr>
<tr>
<td>Attitudes towards teaching profession</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>3.93</td>
<td>.63</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>3.96</td>
<td>.61</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>4.07</td>
<td>.60</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.99</td>
<td>.61</td>
<td>396</td>
</tr>
</tbody>
</table>

Since the result of Box’s M test for homogeneity of covariance matrices was not found significant, a one-way MANOVA with Wilk’s Lambda approximation was performed in order to determine the effect of grade on the two dependent variables. The analysis revealed no significant differences in pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession based on grade, Wilk’s $\Lambda = .99$, $F (4, 784) = 1.28, p > .05$. Follow-up tests were not carried out since it was found that grade level did not have an influence on the dependent variables.

4.7 Summary of Results

This study generally focused on four main issues. First, pre-service teachers’ experiences with education-themed movies (i.e. whether pre-service teachers have seen an education-themed movie before, the number and the names of education-themed movies they have seen, the reason why they have seen a movie more than once and the reason why they were impacted by the movies they have seen) were investigated by using the data gathered through the demographic information form developed by the researcher. Second, the influence that seeing an education-themed movie and the number of education-themed movies seen has on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession was examined by utilizing separate one-way MANOVAs. Third, pre-service
teachers’ perceptions on effective teacher attributes, their attitudes towards teaching profession and the relationship between perceptions regarding the attributes possessed by effective teachers and attitudes towards the profession were investigated by using descriptive and inferential statistics. Finally, the influence of gender, major, and grade level on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession was separately examined by utilizing one-way MANOVAs.

Based on the participants’ responses, 36 movies were identified as education-themed movies and majority of the pre-service teachers have seen at least one education-themed movie before. The movies seen by participants were concerning with special education, barriers to education, student-teacher relationships, classroom management and instructional techniques, effective teacher attributes and education systems. Although some of these movies were shown in classes as a part of instruction, it was found that pre-service teachers have seen most of the movies outside a class. Moreover, it was found that half of the movies were seen more than once since they were used as an instructional material, the storyline and the characters of the movies were influential, they were informative about education and teaching profession, they were making adequate criticisms on education system, and they were relatable to participants’ own lives. Furthermore, some of the pre-service teachers stated that they enjoyed watching movies about their profession. Pre-service teachers’ responses also revealed that they found most of the movies intriguing because of their storylines and messages. Moreover, the characters/actors and the characteristics of the teachers represented in these movies were impressive. What is more, some participants found the movies influential in that they were informative about education, teaching profession and classroom and school environment, they were making adequate criticisms on education system, they were guiding and motivating pre-service teachers, and they were relatable to their own lives.

The findings of the MANOVAs which were conducted to identify the influence of seeing an education-themed movie and the number of education-themed movies seen
revealed that experience with education-themed movies had a statistically significant influence on the interaction of pre-service teachers’ perception on effective teacher attributes and attitudes towards teaching profession. In addition, the follow-up tests showed that pre-service teachers who have seen an education-themed movie before had statistically more positive attitudes towards the profession. However, pre-service teachers’ perceptions on effective teacher attributes did not vary statistically based on seeing an education-themed movie. Similarly, the analyses showed that the number of education-themed movies seen did not have a statistically significant influence on pre-service teachers’ perceptions on effective teacher attributes, their attitudes towards teaching profession, and the interaction of these variables.

Descriptive statistics showed that pre-service teachers had positive perceptions on the attributes possessed by effective teachers, and most of them agreed on the personal and professional attributes given in the instrument. Similarly, it was seen that their attitudes towards the profession were generally positive. Among the items, the participants neither agreed nor disagreed to two items, and partially agreed to one item. When the relationship between participants’ perceptions on effective teacher attributes and attitudes towards the profession was investigated, it was seen that there was a medium, positive and statistically significant relationship between these variables.

The findings of the MANOVAs which were conducted to investigate the influence of gender, major and grade level showed that gender had a statistically significant impact on the interaction of pre-service teachers’ perception of effective teacher attributes and attitudes towards teaching profession. The follow-up tests revealed that female pre-service teachers had statistically more positive perceptions on effective teacher attributes. Similarly, the attitudes of female pre-service teachers towards teaching profession were statistically more positive than males. Moreover, statistically significant difference was observed on the interaction of pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession based on participants’ majors. Likewise, the follow-up analysis indicated
that teacher candidates’ attitudes towards teaching profession differed based on major in that the mean attitude scores of pre-service teachers enrolled in SSME and FLE were statistically more positive than the ones enrolled in CEIT. Similarly, the ones enrolled in EME and ESE had statistically more positive attitudes towards the profession than the ones enrolled in FLE and CEIT. However, it was seen that major did not have a significant influence on the perceptions possessed by the participants towards effective teacher attributes. In a similar way, the analyses showed that grade level did not have a significant impact on the interaction of pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession. The follow-up tests further indicated that both pre-service teachers’ perceptions on the attributes possessed by effective teachers and attitudes towards the profession did not vary based on their grade levels, either.
In this chapter, the discussion of the results that were reported in the previous chapter, implications for practice, and suggestions for further studies are presented. First, the results of the study are discussed in light of the previous studies in the literature. Then, implications for practice are given. Last, suggestions for further research studies are introduced.

5.1 Discussion of Results

The purpose of the study was to investigate pre-service teachers’ experiences with education-themed movies, the influence of seeing an education-themed movie, the number of education-themed movies seen, gender, major and grade level on pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession. Furthermore, this study aimed to examine pre-service teachers’ perceptions on attributes of effective teachers and attitudes towards the profession, and finally, to identify the relationship between perceptions that pre-service teachers possess towards these attributes and attitudes they hold towards the profession. Pre-service teachers’ demographic information (i.e. gender, major and grade level), experiences with education-themed movies (i.e. whether they have seen an education-themed movie, the number and the names of the education-themed movies they have seen, and the reasons for re-watching these movies and being influenced by such movies), perceptions on effective teacher attributes, and attitudes towards teaching profession were identified by administering three instruments developed by the researcher. The data were collected from 427 pre-service teachers enrolled in 2nd, 3rd and 4th years of FLE, CEIT, EME, ESE, and SSME programs and the majority of the sample was females.
Pre-service teachers’ experiences with education-themed movies were investigated by utilizing both quantitative and qualitative analysis. The descriptive statistics showed that most of the pre-service teachers have seen an education-themed movie in and/or outside the class. Moreover, the responses to the open-ended questions revealed that pre-service teachers were influenced by these movies due to several reasons such as having influential storylines and being informative about teaching profession, and school and classroom environments. In addition, most of the pre-service teachers mentioned that they have seen some of these movies more than once not only because of the aforementioned reasons, but also because they were used as instructional materials.

One-way MANOVA was conducted so as to reveal if seeing an education-themed movie, the number of education-themed movies seen, gender, major and grade level resulted in a difference in the combination of perceptions of the pre-service teachers on effective teacher attributes and their attitudes towards teaching profession. The results showed that seeing an education-themed movie, gender and major have a statistically significant influence on the pre-service teachers’ perceptions regarding the attributes of effective teachers and attitudes towards the profession. However, the analyses indicated that there was no statistically significant influence of grade level or the number of education-themed movies seen on the combination of the dependent variables.

Descriptive statistics were used to identify the pre-service teachers’ perceptions on the attributes possessed by effective teachers and their attitudes towards the profession, and inferential statistics were utilized to examine the relationship between the perceptions they possess towards the effective teacher attributes and attitudes they hold towards the profession. The results showed that pre-service teachers agreed on most of the personal and professional attributes of effective teachers, and their perceptions on these attributes were highly positive. When pre-service teachers’ attitudes towards teaching profession were examined, it was seen that although they partially agreed or neither agreed nor disagreed on some of the
items, they agreed on most of the items. Furthermore, the results revealed that pre-service teachers generally have positive attitudes towards the profession. Finally, the Pearson correlation coefficient which was calculated to understand the correlation between perceptions on effective teacher attributes and attitudes towards teaching profession indicated that there was a statistically significant, medium, positive relationship between these variables. In the following sections, the results regarding the research questions and sub-questions of the study are discussed separately in relation to the existing research studies in the literature.

5.1.1 Experiences of Pre-service Teachers with Education-themed Movies

Descriptive statistics and descriptive content analysis which were used to investigate pre-service teachers’ experiences with education-themed movies revealed several results. To begin with, based on the responses, it was seen that most of the pre-service teachers, regardless of their gender, major or grade level, have seen at least one education-themed movie before. The responses also revealed that some participants have seen these movies more than once because the storyline and messages of these movies were influential and inspiring, and the characters in the movies were impressive. Moreover, the participants noted that they have re-watched some movies owing to the characteristics and attitudes of the teachers and their relationships with students, the criticisms on education which helped them realize the problems of education systems, and being informative about how education took place in real life and the impact of education and teachers on students. The participants further stated that they watched some of the movies again since they were relatable to individuals’ lives, motivating, guiding, and used as a part of the courses they took.

Besides, most of the pre-service teachers explained that they have been influenced by these movies due to having impressive storylines, representing teacher characteristics, showing the impact of education, education system and teachers on students, being guiding and relatable to individuals’ own lives, and making criticisms about the education system. Moreover, some of the pre-service teachers expressed
that they were influenced by these movies since they were informing about education, teaching profession, the characteristics of effective teachers, and the dynamics of classroom and school environment.

The literature review showed that there are several studies supporting the results of the current study. As mentioned earlier, the majority of the participants of this study have reported seeing at least one education-themed movie. This result was expected since movies attract everyone’s attention because of the fact that they tell various life stories (Altan, 2016). The analysis of the data further showed that some of the pre-service teachers have rewatched the education-themed movies and/or been influenced by them because of several reasons. The findings of the current study were partially in line with Oruç and Sarıbudak’s (2015) study in that their study pointed out the fact that education-themed movies positively influenced educators, and helped them believe the importance of watching such movies because of their influence on individuals and the learning environments.

The participants’ responses have revealed that one of the reasons why they saw some movies more than once or they found them influential was that these movies were informative. This result was partially in line with existing studies in the literature since they expressed that movies are very influential tools to transfer information because of their nature (Birkök, 2008), and they can be used to attract students’ attention and to increase learning (O’Bannon & Goldenberg, 2008). It was further noted that particularly the youngsters are better able to learn the content if they can relate it to a movie (O’Bannon & Goldenberg, 2008). Supporting these views, Altan (2016) mentioned that movies are educative and they help individuals observe others’ lives and understand how they solve the problems they encounter with. Similarly, the fact that the pre-service teachers found movies motivating and guiding was parallel with the Available Light Advisory’s (2012) report in that it was emphasizing the fact that the use of movies helps increasing motivation. Moreover, the participants stated they have seen some of the movies more than once since they were used as instructional materials. This result was partially supported with Dalton
(2013) and Yakar’s (2013) views since they asserted that popular culture like movies can be and is used to prepare pre-service teachers to profession and classroom. As noted earlier, the pre-service teachers also reported that they were influenced by some of the movies and watched them more than once since these movies helped them realize the problems of education system, teachers and students. This finding was in line with Kaşkaya et al.’s (2011) and Altan’s (2016) studies in that education-themed movies and teachers represented in these movies impact inservice and pre-service teachers and help them become aware of the problems they may encounter with in their professions.

Though pre-service teachers reported they were positively influenced by seeing education-themed movies, according to Gregory (2007) and Vandermeersche et al. (2013), such movies possess stereotypes about students, teachers, and school culture which negatively impact real classrooms and damage individuals’ views on the purpose of education and how it should be carried out. Moreover, the movies often misrepresent teachers in such a way that they are pictured either as nerds or egoists who do not care about the well-being of students (Gregory, 2007) or as super-humans who are able to change individuals’ lives rapidly and dramatically which puts a burden on teachers in real life (Scull & Peltier, 2007). The inconsistencies among the results of the current study and the ones in the literature might be based on the differences in the content of the movies. Over the last few decades, the number of movies about education, teachers, students and school settings has increased rapidly. The genres, storylines and messages given in these movies are by no means similar to each other, therefore it is quite reasonable that each movie might have different impacts on individuals.

5.1.2 Influence of Seeing Education-themed Movies on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

The one-way MANOVA, performed in order to find out the influence of seeing education-themed movies on pre-service teachers’ perceptions on effective teacher
attributes and attitudes towards the profession, revealed that seeing such movies have a statistically significant influence. In a similar way, the results of the univariate analysis of variance disclosed that pre-service teachers who have seen an education-themed movie before have statistically higher attitude scores than the ones who have not seen such a movie. The results of the current study were consistent with Kaşkaya et al.’s (2011) study which found out that education-themed movies statistically impact pre-service teachers’ attitudes in such a way that their attitude scores increased after seeing education-themed movies. Similar results were presented by Kontaş (2016) in that watching an education-themed movie has a statistically significant impact on teacher candidates’ attitude scores in the “love” dimension of the scale, and pre-service teachers’ mean scores increased after seeing an education-themed movie.

On the other hand, the present study showed that seeing an education-themed movie did not result in a statistically significant difference in pre-service teachers’ perceptions on effective teachers’ attributes. The fact that participants of the current study have seen most of the movies outside the class, and that only a few of the movies were used as instructional materials, pre-service teachers may have not had a chance to reflect on the movies thoroughly. Therefore, they might not be able to make use of these movies effectively in order to shape their perceptions on effective teacher attributes. Although the literature review revealed that no study was conducted to determine the impact of education-themed movies on pre-service teachers’ perceptions on effective teacher attributes, according to the participants’ responses to the open-ended questions, they were influenced by the characteristics and attitudes of teachers, their efforts for helping students discover and improve themselves, the relationships established between teachers and students, and the instructional methods teachers used. Furthermore, they stated that these movies were influential and informing in that they showed how effective teachers should be like and the impacts of effective and inadequate teachers.
Overall, it was seen that while seeing an education-themed movie has an influence on pre-service teachers’ attitudes towards the profession, it does not have an influence on their perceptions on effective teacher attributes. Because of the affective component of attitudes, it could be possible that movies positively influence individuals’ attitudes, and they do not have a statistically significant influence on their perceptions. Similarly, the characters and the storylines of the movies might be influential in preparing pre-service teachers to the profession and enhancing their positive attitudes towards the profession. According to Murphy, Delli, and Edwards (2004), individuals’ views on good teachers are formed at early ages and they do not change easily. Therefore, movies alone may not be influential in creating a difference in pre-service teachers’ perceptions on effective teacher attributes. Moreover, since most participants have seen these movies outside the class, they might have limited or no opportunities for facilitating discussions to analyze the attributes of the teachers presented in the movies which could help them become more aware of the effective teacher attributes and develop their perceptions on these attributes.

5.1.3 Influence of Number of Education-themed Movies Seen on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

The one-way MANOVA, utilized to explore the influence of the number of education-themed movies seen by teacher candidates on their perceptions on effective teacher attributes and attitudes towards teaching profession, did not result in statistically significant differences. Although seeing an education-themed movie had an influence on the dependent variables, the fact that this variable did not have such an influence could be interpreted in such a way that the movies seen by pre-service teachers, the places in which the movies were watched, and the conditions under which they were watched might be more influential than the number of movies seen by them. However, there is a gap in the literature in that no study was conducted to investigate the influence of the number of education-themed movies seen on pre-
service teachers’ perceptions on effective teacher attributes and their attitudes towards teaching profession.

On the other hand, the descriptive statistics showed that the number of education-themed movies seen by the pre-service teachers resulted in differences in their perceptions on effective teacher attributes and attitudes towards the profession in such a way that the ones who have seen four movies had the highest perception mean scores, and the ones who have seen five or more movies had the highest attitude mean scores. The interviews conducted by Kaşkaya et al. (2011) partially supports the results of the current research study in that they revealed that after watching education-themed movies pre-service teachers began to understand the real dimensions of the profession. They also stated that teacher candidates became excited about the profession, understood the necessity of being a model for students and realized the problems which they might experience while practicing the profession (Kaşkaya et al., 2011).

5.1.4 Pre-service Teachers’ Perceptions on Effective Teacher Attributes, Their Attitudes towards Teaching Profession, and the Relationship between Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

First, pre-service teachers’ perceptions on effective teacher attributes and their attitudes towards teaching profession were examined through descriptive analysis. The results showed that the participants hold positive perceptions on effective teacher attributes, and they mostly agreed on the attributes possessed by effective teachers. It was seen that most of the pre-service teachers believe effective teachers support students, respect students’ talents, make clear and understandable explanations, and approach individual differences with tolerance. Furthermore, some of the attributes of effective teachers such as appealing to students’ needs for belonging/being loved, communicating the goals they established to students, believing that all students can succeed, showing that what they teach is fun/enjoyable, and enabling students to spend more time on in-class activities were
mentioned less. The results might be interpreted in such a way that pre-service teachers agreed more on the personal attributes of effective teachers. When the literature was reviewed, it was seen that the results of the present study were either consistent or partially consistent with the results of the previous studies. The data analysis showed that this study had consistent results with Ogden et al.’s (1994), Minor et al.’s (2002), and Akın’s (2017) studies in that these studies revealed that pre-service teachers place more importance on personal attributes of effective teachers. While Ogden et al. (1994) reported that pre-service teachers perceive being understanding, caring and knowledgeable as the attributes of effective teachers, in the current study, supporting students, respecting their talents, making clear and understandable explanations, and approaching differences with tolerance were the attributes frequently cited by the pre-service teachers. According to Minor et al. (2002), pre-service teachers stated being student-centered as an attribute of effective teachers more frequently than other ones. Moreover, Akın’s (2017) study showed that teachers are expected to possess attributes like being tolerant. Consistent results were also observed between the current study and Semiz and Zibande’s (2014) study. According to their study, participants gave importance to personal attributes (e.g. being caring, friendly, and knowledgeable of the subject) more than professional attributes (e.g. using different instructional methods and asking questions). Similarly, the present study had similar results with Göksel and Rakıcıoğlu-Söylemez’s (2018) study in such a way that both studies revealed that personal attributes received more importance from pre-service teachers. According to the results of the study conducted by Göksel and Rakıcıoğlu-Söylemez (2018), pre-service teachers believe the most important characteristic of an effective English teacher is to possess skills to use language appropriately. Moreover, the participants noted other personal attributes of effective teachers such as being patient, helpful, and humorous. On the other hand, Arıkan’s (2010) and Çakmak and Gündüz’s (2018) results were partially consistent with that of this study. According to the results of the study conducted by Arıkan (2010), pre-service teachers give importance to both personal attributes and professional skills and consider using special teaching strategies, being a role model, and respecting students as characteristics of effective English teachers. Moreover, the
results of Çakmak and Gündüz’s (2018) study showed that pre-service teachers give importance to personal attributes, professional skills and classroom management skills of effective teachers. The studies in the literature showed that the majority of the pre-service teachers consider personal attributes as important characteristics possessed by effective teachers. Besides, some studies revealed that professional skills and classroom managements skills are also given importance by pre-service teachers while defining the characteristics of effective teachers. However, there are differences among the attributes which were agreed more by pre-service teachers. The differences in the data collection tools, the nature of the teacher training programs, and the varying expectations of pre-service teachers enrolled in different majors might be the reason behind these variations among the results of these studies.

Second, the descriptive statistics showed that attitudes of pre-service teachers towards the profession are generally positive, and they agreed on most of the items. It was also seen that these prospective teachers partially agreed or neither agreed nor disagreed on some items. The results demonstrated that participants mostly agreed on the items stating that teaching is an important profession that requires to be responsible, teaching is a profession that can contribute to the development of the society, and teaching is an important profession that requires to be altruistic. It was seen that some of the pre-service teachers neither agreed nor disagreed on the items stating that I can pursue the teaching profession for a lifetime, and teaching is not a difficult profession for me. And, they only partially agreed to the item stating that I want to pursue a profession other than teaching if I have an opportunity. The literature review on pre-service teachers’ attitudes towards teaching profession showed that although the attitudes possessed by pre-service teachers might differ by certain factors such as gender, grade level, major and the reason for choosing the profession, they generally hold positive attitudes towards the profession. In that sense, the results of the previous studies were in line with the current study’s results. According to Sağlam (2008), Başbay et al. (2009), Özder et al. (2010), Fadlelmula (2013), Kesen and Polat (2014) and Taşdemir (2014), pre-service teachers possess
positive attitudes towards teaching profession. Similarly, the studies conducted by Güneyli and Aslan (2009), Akbulut and Karakuş (2011), Eret-Orhan and Ok (2014) revealed that the pre-service teachers generally had positive attitudes towards teaching profession.

Finally, Pearson correlation coefficient was calculated in order to understand whether pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession are correlated with each other. The correlation coefficient was found to be .36 indicating that there is a statistically significant relationship between these variables. This result could be interpreted as pre-service teachers who have positive perceptions on effective teacher attributes also possess positive attitudes towards their profession, and vice versa. However, when the literature was reviewed, it was seen that there are no studies investigating these variables’ relationship.

5.1.5 Influence of Gender, Major and Grade Level on Pre-service Teachers’ Perceptions on Effective Teacher Attributes and Attitudes towards Teaching Profession

One-way MANOVA was conducted in order to examine whether pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession differ with respect to their gender. The results of the analysis revealed that gender of the pre-service teachers affected their perceptions on effective teacher attributes and attitudes towards teaching profession. Moreover, the follow-up test, carried out by ANOVA, revealed that female pre-service teachers had statistically more positive perceptions on effective teacher attributes than males. Similarly, their attitudes towards teaching profession were statistically more positive than male pre-service teachers.

The literature review showed that there exist inconsistencies between the results of the current study and the previous ones. The results of this study in terms of the influence of gender on pre-service teachers’ attitudes were consistent with that of
Tanrıöğen (1997), Bozdoğan et al. (2007), Sağlam, (2008), Güneyli and Aslan (2009), Üstüner et al. (2009), Tezci and Terzi (2010), Aksoy, (2010), Pektaş and Kamer (2011), Fadlelmula (2013) and Eret-Orhan and Ok (2014) in that female pre-service teachers possess more positive attitudes towards their profession. Bhargava and Pathy (2014) asserted that attitudes towards teaching profession are influenced by gender. Similarly, according to Karakuş and Aslan (2009), females display more commitment to the teaching profession and associate the profession to their own personalities more than males. Moreover, the stereotypical gender roles in the society (Tanrıöğen, 1997), and the fact that teaching young students is associated with motherhood (Ullah, 2016) and that the profession is appropriate for females (Bozdoğan et al. 2007; Ullah, 2016) might play a role in the feminization of the profession which can cause females to have more positive attitudes towards teaching. Therefore, such a result was expected. However, the studies conducted by Çapa and Çil (2000), Kaplan and İpek (2002), Başbay et al. (2009), Özder et al. (2010), Hacıömeroğlu and Şahin-Taşkın (2010), Tok (2012), Kesen and Polat (2014), and Taşdemir (2014) revealed that gender does not have a statistically significant influence on pre-service teachers’ attitudes towards teaching profession. The inconsistencies in the literature were perceived as normal, since the potential variations in the conditions of institutions (i.e. universities), the profile of pre-service teachers, the number and the ratio of male and female participants included in these studies, the teacher training programs they were enrolled in, and the curricula they were taught with might have caused different results among the studies conducted to examine the influence of gender on pre-service teachers’ attitudes.

On the other hand, the influence of gender on pre-service teachers’ views regarding the characteristics possessed by effective teachers has not been studied excessively. Moreover, the existing studies were mainly aiming to determine the characteristics which are perceived as effective teacher characteristics by pre-service teachers, rather than evaluating the degree to which pre-service teachers agree to the characteristics possessed by such teachers. Even though the purpose of the present study and the existing studies were not the same, the results of this study and the
ones conducted by Ogden et al. (1994) and Witcher and Onwuegbuzie (1999) were resembling since they revealed gender has an impact on pre-service teachers’ perceptions/views on attributes of effective teachers. Ogden et al.’s (1994) study showed that pre-service teachers’ responses resulted in differences based on their gender in such a way that although undergraduate females perceived understanding as the fundamental characteristic of an effective teacher, undergraduate males considered caring as the primary one. Moreover, female pre-service teachers were found to perceive effective teachers as understanding, enthusiastic, creative and organized, while males perceived them as fair, communicating well, responsible and humorous. Similarly, Witcher and Onwuegbuzie’s (1999) study revealed that while female pre-service teachers considered being student-centered as the most important effective teacher characteristic, males stated that it is the management style. What is more, it was seen that mostly females identified teaching methodology and being ethical as the characteristics of effective teachers, and that they perceived content knowledge and management style as less important. However, the results of the present study were only partially compatible with Minor et al.’s (2002) study whose results showed that though male participants believed effective teachers are effective classroom and behavior managers more than females did, there was no gender difference on pre-service teachers’ perceptions on other characteristics such as being student-centered, enthusiastic and knowledgeable.

One-way MANOVA was performed to determine whether perceptions of pre-service teachers on effective teacher attributes and their attitudes towards teaching profession differ by major. The results revealed that major of the pre-service teachers resulted in a difference in their perceptions regarding the attributes of effective teachers and attitudes towards teaching profession. The results of the study in terms of the influence of major on pre-service teachers’ attitudes were consistent with the ones conducted by Üstüner et al. (2009), Aksoy (2010), Özder et al. (2010), Kaşıkaya et al. (2011), Eret-Orhan and Ok (2014) and Kesen and Polat (2014). Contrary to this study, some of the existing research studies revealed that major does not impact pre-service teachers’ attitudes towards teaching profession (Bozdoğan et al., 2007;
Moreover, the results of the study conducted by Akbulut and Karakuş (2011) were partially consistent with the present study. The study showed that although major did not have an impact on fourth graders’ attitudes towards teaching profession, it impacts the attitudes held by fifth graders in such a way that the pre-service teachers enrolled in Biology Education hold statistically more positive attitudes than the ones studying Physics Education and Chemistry Education (Akbulut & Karakuş, 2011). The follow-up test revealed that pre-service teachers enrolled in SSME and FLE had statistically more positive attitudes towards teaching profession than the ones enrolled in CEIT, and pre-service teachers studying EME and ESE possessed statistically more positive attitudes than the ones enrolled in FLE and CEIT. These results were consistent with the results of Üstüner et al.’s (2009), Aksoy’s (2010), and Eret-Orhan and Ok’s (2014) studies since they indicated that pre-service teachers enrolled in CEIT have the lowest attitude scores compared to the ones enrolled in other majors. Revealing the impact of major, the results of the current study were also parallel with that of the study conducted by Kaşkaya et al. (2011) since it showed that attitudes of pre-service teachers studying Mathematics Education, Classroom Teaching and Social Sciences Education are statistically more positive than the ones studying Science Education. According to Engin and Çiçekli-Koç (2014), the attitudes of academics and relationships among the pre-service teachers might be affecting the differences in attitudes of pre-service teachers enrolled in different majors. Similarly, Bulut (2009) stated that academics, instructional environments, and curricula could be the reason behind the difference in pre-service teachers’ attitudes towards the profession. In addition to these views, Üstüner et al. (2009) claimed that not being enrolled in the desired major/undergraduate program as a result of the university entrance examination and not knowing the department enough could be the reasons of the lower attitudes towards the profession possessed by pre-service teachers enrolled in CEIT.

To the contrary, the results of the follow-up test revealed that major did not have an impact on pre-service teachers’ perceptions on effective teacher attributes. This
result indicates that pre-service teachers have similar perceptions on the characteristics possessed by effective teachers regardless of their majors. Given that both Wong and Wong (2004) and Cruickshank et al. (2009) defined the characteristics possessed by effective teachers regardless of the grade level or the subject they teach, these characteristics might be considered as common characteristics of effective teachers. Therefore, it could be understandable that statistically significant variation was not found among the perceptions of pre-service teachers enrolled in different majors. However, no study has been conducted to compare or identify the perceptions of pre-service teachers from different majors on effective teacher attributes.

In an attempt to identify the influence that grade level has on pre-service teachers’ perceptions on attributes of effective teachers and attitudes towards teaching profession, a one-way MANOVA was utilized. The analysis showed that grade level of the pre-service teachers did not have an influence on their perception and attitude scores. The results of the study were consistent with the previous studies carried out by Tanrıöğen (1997), Güneyli and Aslan (2009), Üstüner et al. (2009), Özder et al. (2010), Tezci and Terzi (2010), and Taşdemir (2014) in that they revealed that grade level of pre-service teachers does not have an impact on their attitudes towards teaching profession. According to Tanrıöğen (1997), the lack of improvement in the conditions of teaching profession that would enhance pre-service teachers’ attitudes towards the profession and the insufficiency of teacher education programs in terms of increasing teacher candidates’ attitudes might be some of the reasons behind this result. However, considering the fact that the participants of the study already had positive attitudes towards the profession, their attitudes might have not changed significantly with respect to their grade levels. On the other hand, the studies conducted by Uyanık (2017) and Kaplan and İpek (2002) showed that grade level of pre-service teachers has an impact on their attitudes towards the profession in such a way that pre-service teachers enrolled in fourth grade have statistically more positive attitudes. Similarly, the results of the study were not consistent with that of Çapa and Çil’s (2000) study since they found that pre-service teachers enrolled in third grade
had statistically more positive attitudes than the ones enrolled in second grade. Another inconsistency was observed among the results of the current study and those of Pektaş and Kamer’s (2011) and Fadlelmula’s (2013) studies in that these studies showed that attitudes of first and second year pre-service teachers towards the profession were more positive than other pre-service teachers. Moreover, the results of Sağlam’s (2008) study revealed that second year pre-service teachers had lower attitude scores compared to first, third and fourth year pre-service teachers. Finally, the results of the study conducted by Akbulut and Karakuş (2011) were inconsistent with those of the current study since they found out that the fourth year pre-service teachers had statistically more positive attitudes than the fifth year pre-service teachers. Although Çapa and Çil (2000) stated that as the number of pedagogy courses increases in the third grade, pre-service teachers begin developing more positive attitudes towards the profession, the existing studies revealed inconsistent results. The differences in the profile of pre-service teachers enrolled in teacher education programs, the varying workload of the programs by grade level, the existing attitudes they hold towards teaching profession, the majors they enrolled in, the presence of Public Personnel Selection Examination and the concerns regarding employment might be some of the reasons behind the variations in the attitudes of pre-service teachers.

The results of this study and Minor et al.’s (2002) study were consistent since both of the studies showed that grade level does not have an influence on pre-service teachers’ perceptions. According to Murphy et al. (2004), individuals have prior experience with good and bad teachers during their previous education lives, and they start teacher training programs with an existing view on good teaching. Moreover, they noted that these views are developed at early ages and they tend to be stable during teacher preparation, as well. Considering these, it is understandable that grade level did not result in a statistically significant difference among the perceptions of pre-service teachers. However, the current study resulted in inconsistencies with Ogden et al.’s (1994), Witcher and Onwuegbuzie’s (1999), and Göksel and Rakıcıoğlu-Söylemez’s (2018) studies since they revealed that pre-
service teachers’ views on effective teacher attributes differed with respect to their grade levels. Ogden et al. (1994) found out that while undergraduate pre-service teachers consider \textit{being interesting, creative, firm, responsible and a good communicator} as some of the attributes of effective teachers, graduates perceived attributes such as \textit{being flexible} and \textit{organized} as related to effective teachers’ attributes. On the other hand, the study conducted by Witcher and Onwuegbuzie (1999) whose sample consisted of juniors, seniors and post-baccalaureates revealed that older pre-service teachers tend to state attributes related to \textit{being ethical} as one of the characteristics possessed by effective teachers more than other pre-service teachers. The inconsistency among the results of these studies might be based on the variations of pre-service teachers expectations from effective teachers and the experiences they have with their previous teachers.

5.2 Implications for Practice

In the following paragraphs, implications for practice in relation to the results of the study are presented.

The results of the present study revealed that the majority of the pre-service teachers participated to the study have seen at least one education-themed movie in and/or outside the class, and most of them found these movies influential. According to the participants’ responses, these education-themed movies have influential and informative messages, and they are relatable to individuals’ own lives due to the realistic elements included in the movies. Therefore, pre-service teachers should be provided with more opportunities to watch movies through in-class and extracurricular activities. Faculty members may use education-themed movies which are related to their classes in order to contribute to pre-service teachers’ personal, professional and academic developments. Special events for movie screening can be organized in the departments to enable individuals to see education-themed movies. Student clubs, in which pre-service teachers have a chance to watch a variety of movies related with education, reflect on the movies and discuss the significant concepts/scenes in the movies, can be founded by the guidance of faculty members or student club advisors.
Moreover, a movie archive should be established in the departments or on universities’ online platforms to let pre-service teachers reach education-themed movies easily and legally. Finally, special areas in the departments can be built in order to provide individuals with opportunities to watch movies.

In addition to the qualitative data obtained from the participants, the statistical analysis revealed that teacher candidates who have seen an education-themed movie have more positive attitudes towards teaching profession. Considering their influence on attitudes towards the profession, the faculty members should keep using these movies as a resource, and the use of movies should become a common practice among the faculty members in each department-teacher education program. Moreover, pre-service teachers who have not seen such a movie should be provided with opportunities to watch an education-themed movie. However, the fact that these movies are long, it can be time consuming to use them in class frequently. Therefore, they can be shown as short video clips, or recommended to be watched outside the class-time.

Recently MoNE (2018) has created a list of education-themed movies which are suggested for teachers. Pre-service teachers can make use of this list while choosing the movies to contribute to their personal and professional developments. Moreover, given that such movies may also create some unexpected and unforeseen negative effects, while using or recommending movies, educators and faculty members should select the movies based on certain criteria to avoid the potential damages they could cause and to increase their effectiveness. To do so, they can make use of suggested film lists (e.g. MoNE, 2018) and the books and the articles about education-themed movies. Moreover, by reviewing these resources, academics might prepare a list of movies which are the most relevant to their courses.

Although seeing an education-themed movie did not result in a statistically significant difference in pre-service teachers’ perceptions on effective teacher attributes, the mean scores indicated that the ones who have seen such movies had slightly more positive perceptions. It is believed that the teacher figures represented
in these movies, and the characteristics possessed by them make education-themed movies valuable and informative resources for introducing effective teachers and expressing their characteristics. Thus, the use of education-themed movies, especially the ones which portray effective teachers, should be increased. Also, to help pre-service teachers possess more positive perceptions on effective teacher characteristics, the teachers represented in these movies and their attributes should be thoroughly investigated through in-class activities.

Though it was found that the number of education-themed movies seen did not have an influence on pre-service teachers’ perceptions on effective teacher attributes and their attitudes towards the profession, the descriptive statistics indicated that the perceptions of pre-service teachers who have seen four education-themed movies and the attitudes of pre-service teachers who have seen five or more movies were higher than others. There is no adequate guidance regarding the number of education-themed movies in the related literature, but it could be claimed that as the exposure to such movies increases, the perceptions and attitudes of pre-service teachers become more positive. Finally, rather than only showing the movies, they should be integrated into teaching-learning processes, and prospective teachers should be provided with opportunities to discuss and reflect on these movies in terms of the teachers’ attributes and attitudes by considering the characteristics of effective teachers, and to compare the real teachers, student-teacher relationships and educational environments with the ones represented in the movies.

Given the fact that gender resulted in a statistically significant difference in pre-service teachers’ perceptions on effective teacher attributes and attitudes towards the profession in favor of females, male pre-service teachers should be supported more. To begin with, the prejudice that teaching is more suitable for females should be overcome and individuals who wants to pursue teaching profession should be encouraged to enroll in teacher training programs regardless of their gender. Then, special events such as Career Day, Alumni Day and seminars, in which pre-service teachers meet with inservice teachers, learn about the advantages and disadvantages
of the profession, and ask their questions regarding the profession, should be organized. These events might also be influential for pre-service teachers to learn about the attributes required to be an effective teacher. Finally, education-themed movies which portray effective female and male teachers should be watched and pre-service teachers should be given a chance to see that effectiveness of a teacher does not depend on gender.

What is more, it was found that major has a statistically significant influence on attitudes of pre-service teachers towards the profession. Among the participants, the ones enrolled in ESE had the most positive attitudes followed by the ones enrolled in EME, SSME and FLE. In addition, it was seen that pre-service teachers enrolled in CEIT had the lowest attitude scores. First of all, the dynamics of the departments should be carefully investigated, and the factors which might influence pre-service teachers’ attitudes towards the profession should be determined by conducting observations and having face-to-face interviews with faculty members and pre-service teachers. Second, departments should organize events in order to introduce the teaching profession and help pre-service teachers love the profession and possess more positive attitudes towards it. These initiatives should be supported with in-class activities, as well. By utilizing education-themed movies, documentaries and news from real-life teachers, the importance of the profession should be emphasized and the impacts of teachers and their attitudes should be expressed. On the contrary, although the results indicated that major did not have a statistically significant influence on participants’ perceptions on attributes of effective teachers, pre-service teachers enrolled in CEIT had the lowest scores compared to the ones enrolled in other programs. Thus, teacher candidates, especially the ones studying CEIT, should be provided with more opportunities to learn the attributes of effective teachers and meet with effective teachers from their fields. Moreover, teaching should be endeared and pre-service teachers should be encouraged to pursue the profession. In order to help them possess more positive perceptions on these attributes, they should be given opportunities to see the practices of such teachers. To this end, the time spent for classroom observations and school experience should be increased, movies
involving effective teachers should be shown in class or recommended for outside the class, and stories of real teachers should be shared with pre-service teachers.

Although the analysis showed that grade level did not have an influence on pre-service teachers’ perceptions on effective teacher attributes and their attitudes towards the profession, the descriptive statistics revealed that pre-service teachers enrolled in second grade had the lowest perception scores, and the ones enrolled in third grade had the highest scores. First of all, actions should be taken to increase the perceptions of pre-service teachers enrolled in other grade levels regarding the attributes of effective teachers, as well. The practices of effective teachers should be shared with prospective teachers through videos/video clips, documentaries and education-themed movies, the opportunities for classroom and school experience should be increased, and meetings should be organized in order to enable pre-service teachers to meet real teachers and learn more about their attributes. Moreover, the descriptive statistics showed that while pre-service teachers enrolled in second grade had the lowest mean scores, the ones enrolled in the fourth grade had the highest scores. To begin with, in order to increase the attitudes of second year pre-service teachers, the courses offered in education faculties should be revised to give them more chances to learn and practice the profession through in-class and extracurricular activities, and the use of education-themed movies and the analysis of the practices of both real and fictional teachers should be integrated to these courses. Also, since the number of courses related with content knowledge increases in the second grade, the course load might become overwhelming for the pre-service teachers enrolled in this grade level. In an attempt to increase their attitudes towards their profession, the number of courses related with content knowledge might be decreased.

**5.3 Implications for Further Research**

Based on the results of the present study, the following implications for further research could be raised:
1. The statistical analyses indicated that prospective teachers’ perceptions on attributes possessed by effective teachers and attitudes towards teaching profession differed with respect to some of the variables investigated in this study. However, since the study utilized a survey design, it does not provide strong evidence on causality. In order to be able to talk about the causality and to better understand the positive and negative impacts of movies, a mixed method research can be undertaken in which pre-service teachers are expected to write reflections after watching education-themed movies regarding how they were influenced by the movies.

2. Pre-service teachers stated that some of the education-themed movies were used in class as instructional materials. A study utilizing content analysis and observation of classroom practices should be carried out in order to examine the content of the frequently used/seen education-themed movies and to understand how movies are used in the class.

3. Pre-service teachers reported that they were influenced by the movies because of several reasons. However, the literature review showed that some of the education-themed movies contain misinformation about education and educators.

4. Participants noted that education-themed movies were informative and guiding. In order to determine whether these movies contribute to teachers’ practices, qualitative and or quantitative studies can be carried out with inservice teachers.

5. To better understand the factors that resulted in a difference in pre-service teachers’ perceptions on effective teacher attributes and attitudes towards teaching profession, this study can be replicated by adding a qualitative dimension, or a separate qualitative study can be conducted.

6. Considering the fact that observing a role model is essential in the development of positive attitudes towards the profession, a qualitative study
should be carried out to examine the attitudes and behaviors of faculty members and their relationships with pre-service teachers.

7. It was revealed that although prospective teachers enrolled in EME and ESE had the highest attitude scores, the ones enrolled in CEIT had the lowest ones. In order to understand the reason behind this difference, a qualitative research study should be conducted with pre-service teachers from EME, ESE and CEIT.

8. Similarly, grade level was found to be ineffective on pre-service teachers’ attitudes towards teaching profession and their perceptions on effective teacher attributes. However, some research studies revealed the impact of grade level on these variables. Therefore, more studies with larger samples should be conducted to understand whether grade level is influential in developing their attitudes towards the profession and perceptions on effective teacher attributes. In addition, the descriptive statistics of the current study showed that while the 2nd year pre-service teachers’ attitudes towards the profession were the lowest, the ones enrolled in the 4th grade had the most positive attitudes towards the profession. Moreover, they indicated that while the 2nd year pre-service teachers’ perceptions on effective teacher attributes were the lowest, the 3rd year pre-service teachers’ perceptions on these attributes were the highest. In an attempt to identify the reasons behind this difference, a research study should be conducted with 2nd, 3rd and 4th graders.

9. Since the teacher education programs have recently changed, the 1st year pre-service teachers were not included in this study. However, it is important to identify their perceptions on effective teacher attributes and attitudes towards the profession in order to learn more about the entry characteristics of the pre-service teachers. Therefore, a separate study can be conducted with pre-service teachers enrolled in 1st grade.
10. The study can be replicated countrywise for stronger and more generalizable results.
REFERENCES


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APPENDICES

A. METU HUMAN SUBJECTS ETHICS COMMITTEE PERMISSION
B. THE LIST OF EDUCATION-THEMED MOVIES PROVIDED BY MONE TO CONTRIBUTE TO TEACHERS’ PERSONAL AND PROFESSIONAL DEVELOPMENT

Örnek Film Listesi
1. 3 Idiots
2. 400 Darbe / The 400 Blows
3. AmericanTeacher
4. Arkadaşımın Evi Nerede / Khane-ye Doust Kodjast?
5. Asyanın Kandilleri (Belgesel)
6. Bana Güven / Lean on Me
7. Batıya Doğru Akan Nehir (Belgesel)
8. Bay Lazhar / Monsieur Lazhar
9. Billy Elliot
10. Bir Fazlası Değil / Not One Less
11. Birinci Sınıf / The First Grader
12. Can Dostum / Good Will Hunting
13. Canım Öğretmenim / Monsieur Lazhar
14. English Vinglish
15. Etek Günü / La Journée de la Jupe
16. Hababam Sınıfı (1975)
17. Hababam Sınıfı Dokuz Doğuruyor (1979)
19. Hababam Sınıfı Sınıfta Kaldı (1976)
20. Hababam Sınıfı Tatilde (1978)
22. İki Dil Bir Bavul
23. İmparatorlar Kulübü
24. Kalk ve Diren / Stand and Deliver
25. Kara Tahta / Takhtesiah (Blackboards)
26. Kerkenez / Kes
27. Koro / Les Choristes
28. Kör Nokta / The Blind Side
29. Küçük Ağacın Eğitimi / The Education of Little Tree
30. Malcolm X
31. Olmak ve Sahip Olmak / Être et Avoir / To Be and To Have
32. Öğretmen / Teaching Mrs. Tingle
33. Öğretmenim Bay Kim / My Teacher, Mr. Kim
34. Ölü Ozanlar Derneği / Dead Poets Society
35. Özgürlük Yazarları
36. Patch Adams
37. Ron Clark'ın Hikâyesi / The Ron Clark Story
38. Sessizlik / Dogani
39. Sevgili Öğretmenim / Mr. Holland’s Opus
40. Sevgili Öğretmenim / To Sir with Love
41. Sınıf / EntreLesMurs (The Class)
42. Sınıfın Önü / Front of the Class
43. Siyah / Black
44. Süpermen’i Beklerken / Waiting For Superman
45. Şeytana Karşı / Ondaskan-Evil
46. Tarih Öğrencileri / The History Boys
47. Tepetaklak Nelson / Half Nelson
48. Tom Brown’ın Okul Günleri / Tom Brown’s Schooldays
49. Yedek Parçalar / Spare Parts
50. Yerdeki Yıldızlar / Taare Zameen Par
Bu çalışma, Orta Doğu Teknik Üniversitesi Eğitim Programları ve Öğretim Bölümü’nde yüksek lisans öğrenimine devam etmekte olan Elif Tuğçe Gezer tarafından Prof. Dr. Ahmet Ok danışmanlığında yürütülmektedir. Bu form sizini araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.


Bu çalışmaya katıldığınız için şimdiye teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için ODTÜ Eğitim Programları ve Öğretim Bölümü yüksek lisans öğrencisi Elif Tuğçe Gezer (E-posta: gezer.tugce@metu.edu.tr) ile iletişim kurabilirsiniz.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katıldığım için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için ODTÜ Eğitim Programları ve Öğretim Bölümü yüksek lisans öğrencisi Elif Tuğçe Gezer (E-posta: gezer.tugce@metu.edu.tr) ile iletişim kurabilirsiniz.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katıldım.
D. TURKISH SUMMARY / TÜRKÇE ÖZET

EĞİTİM TEMALI FİLMLERİN ÖĞRETMEN ADAYLARININ ETKİLİ ÖĞRETMEN TUTUMLARINA YÖNELİK ALGILARI VE KİŞİSEL-MESLEKİ NİTELİKLERİ ÜZERİNDEKİ ETKİSİ

1. Giriş


mesleğine yönelik tutumları üzerinde önemli bir etkisi vardır. Ayrıca, filmler, öğretmen adaylarının mesleğe hazır olmaları üzerinde olumlu bir etkiye sahiptir ve öğretmen adaylarının değerlerini, inançlarını ve davranışlarını değiştirme konusunda tetikleyici olabilir (Tan, 2006).


Eğitim teması film sayısındaki artış ve eğitimde filmlerin kullanımının yaygınlaşması göz önüne alınıldığında, bu filmlerin öğretmen eğitiminde etkili olup olmadığını araştırmaya ihtiyaç olduğu düşünülmüştür. Filmlerin özellikle öğretmen adaylarının mesleğe yönelik tutumları ve etkili öğretmen nitelikleri hakkındaki algıları üzerindeki etkisi tespit edilmelidir.

1.1 Araştırmanın Amacı ve Önemi

Bu çalışmanın amacı, öğretmen adaylarının eğitime teması filmlerle ilgili deneyimlerini incelemek, bu filmlerin adayların etkili öğretmen niteliklerine yönelik algılarını ve öğretmenlik mesleğine yönelik tutumlarını etkileşip etkilemediğini belirlemek, adayların algı ve tutumları arasındaki ilişkiyi ortaya çıkarmak ve eğitim teması film izlemenin, izlenen film sayısının, cinsiyetin, bölümün ve sınıf düzeyinin adayların algı ve tutumları üzerindeki etkisini araştırmaktır.
Bu çalışma iki temel sebeple önemli görülmektedir. İlk olarak, Academic Search Complete, ScienceDirect ve Scopus gibi veritabanları kullanılarak Aralık 2019 tarihine kadar yapılan alanyazın taramasına göre eğitim temalı filmlerin öğretmen adayları üzerindeki etkisine ilişkin çalışmaların sayısı sınırlıdır ve bu filmlerin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları üzerinde etkisinde ilgili çalışma bulunmamaktadır. İkincisi, Aralık 2019 tarihine kadar ProQuest, Ulusal Tez Merkezi ve YÖK gibi veritabanları kullanılarak yapılan alanyazın taramasına göre var olan yüksek lisans veya doktora tezlerinde bu filmlerin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ve öğretmenlik mesleğine yönelik tutumları üzerindeki etkisi çalışılmamıştır.

1.2 Araştırma Soruları

Bu araştırmada, aşağıdaki araştırma sorularına yanıt aranmaktadır.

1. Öğretmen adaylarının eğitim temalı filmlerle ilgili deneyimleri nelerdir?

2. Eğitim temalı filmlerin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerindeki etkisi nedir?

2.1. Eğitim temalı film izlemenin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerinde etkisi var mıdır?

2.2. Öğretmen adaylarının izledikleri eğitim temalı film sayısının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerinde etkisi var mıdır?

3. Öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları, öğretmenlik mesleğine yönelik tutumları ve öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları arasındaki ilişki nedir?
4. Çeşitli değişkenlerin (cinsiyet, bölüm ve sınıf düzeyi) öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerindeki etkisi nedir?

4.1. Cinsiyetin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerinde etkisi var mıdır?

4.2. Bölümün öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerinde etkisi var mıdır?

4.3. Sınıf düzeyinin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerinde etkisi var mıdır?

2. Alanyazın Taraması

2.1 Eğitim Konulu Filmler ve Filmlerin Önemi


Alanyazın taraması eğitim temalı filmlerin içeriğini ve bu filmlerin öğretmen adayları, eğitimciler, eğitim ve öğretim ortamları üzerindeki etkilerini analiz etmek için çeşitli çalışmalar yaptığini göstermiştir (Birkök, 2008; Choi, 2009; Gregory, 2007; Kaşkaya vd., 2011; Kontaş, 2016; Oruç ve Sarıbudak, 2015; Scull ve Peltier, 2007; Tan, 2006; Vandermeersche vd., 2013).

2.2 Öğretmenlik Mesleğine Yönelik Tutum

ettiğinden, bireylerin başkalarının deneyimlerini gözlemlemeleri için fırsat sağlamakta ve kültürel değerleri, tutumları ve davranışları aktarmada etkili bir yol sunmaktadır (Altan, 2016).


2.3 Etkili Öğretmen Nitelikleri

Öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algılarını ve cinsiyet ile sınıf düzeyi gibi çeşitli değişkenlerin bu algıları etkilerini belirlemek için çeşitli çalışmalar yapılmıştır (Arikan, 2010; Çakmak ve Gündüz, 2018; Göksel ve Rakıcıoğlu-Söylemez, 2018; Minor ve diğerleri, 2002; Ogden vd., 1994; Semiz & Zibande, 2014; Witcher ve Onwuegbuzie, 1999).

3. Yöntem

3.1 Desen

Bu çalışmada öğretmen adaylarının eğitim konulu filmlerle ilgili deneyimlerini incelemek ve bu filmlerin adayların etkili öğretmen niteliklerine ilişkin algıları ile öğretmenlik mesleğine yönelik tutumları üzerindeki etkisi belirlemek amacıyla tarama deseni kullanılmıştır.

3.2 Örneklem

Bu çalışmanın hedef evreni Ankara’daki üniversitelerin eğitim fakültelerine kayıtlı öğretmen adaylarıdır. Çalışmanın ulaşılabilir evreni öğretim dili İngilizce olan bir kamu üniversitesi olarak belirlenmiştir. Çalışmaya bu üniversitenin İngilizce Öğretmenliği (İÖ), Bilgisayar veвших Temel Bilgiyi ve Teknolojileri Eğitimi (BÖTE), İlköğretim Matematik Eğitimi (İME), Fen Bilgisi Eğitimi (FBE), Fizik Eğitimi (FE), Kimya Eğitimi (KE) ve Matematik Eğitimi (ME) lisans programlarına katılarak olan 2., 3. ve 4. sınıf öğrencilerrinden 427’si katılmıştır.

3.3 Veri Toplama Araçları

Veri toplamak için araştırmacı tarafından geliştirilen üç veri toplama aracı kullanılmıştır. İlk veri toplama aracı iki bölümünden oluşan demografik bilgi formudur. Formun birinci bölümü öğretmen adaylarının cinsiyetini, bölümünü, sınıf düzeyini ve dönemin, ikinci bölümü ise adayların eğitim temalı filmlerle ilgili deneyimlerini belirlemeyi amaçlamıştır. İkinci veri toplama aracı, adayların etkili öğretmenlerin sahip oldukları niteliklere ilişkin algılarını belirlemeyi amaçlayan Etkili Öğretmen Niteliklerine İlişkin Algı ("PETA") ölçeğidir. Ölçek geliştirilirken Cruickshank ve

Araçların görünüş, kapsam ve yapı geçerliğini test etmek için öğretmen adaylarıyla sesli düşünme protokolü uygulanmış, Eğitim Programları ve Öğretim ile Ölçme ve Değerlendirme alanlarında uzman ve akademisyenlerden uzman görüşü alınmış ve pilot çalışmada “PETA” ve “ATTP” ölçekleriyle toplanan veriler üzerinde açımlayıcı faktör analizi yapılmıştır. Ayrıca, verilerin güvenirliliği Cronbach’ın Alpha değeri hesaplanarak kontrol edilmiştir. Tek boyuttan oluşan “PETA” ölçeğinden elde edilen verilerin iç tutarlılık katsayısı .96 olarak hesaplanmıştır. ATTP ölçeğinin “öğretmenlik mesleğini sevme”, “öğretmenlik mesleğine ilişkin yeterlik algısı” ve “öğretmenlik mesleğine verilen değer” boyutları için Cronbach’ın Alpha değeri sırasıyla .69, .89 ve .83 bulunmuştur.

3.4 Veri Toplama Süreci

3.5 Veri Analizi


Araştırmanın 1. sorusuna yanıt vermek için betimsel analiz ve içerik analizi yöntemleri kullanılmıştır. Öncelikle, adaylarının izledikleri filmler ve film sayıları ile her filmin kaç kişi tarafından ve nerede izlendiği belirlenmiştir. Sonra, her film için, adayların bu filmleri neden birden fazla kez izlediği ve filmlerden neden etkilendiği incelenerek yanıt kategoriler/kodlar altında toplanmıştır.

2. ve 4. araştırma sorularını yanıtlamak için kestirisel analiz yöntemi kullanılmıştır. Analizden önce tek yönlü MANOVA’ının varsayımını, çok değişkenli normallık, kovaryans matrisinin homojenliği, çoklu bağlantı probleminin olmadığını (Field, 2009; Hair et al., 2013; Tabachnick & Fidell, 2012), kontrol edilmiştir. Varsayımlar ihlal edilmediği için eğitim temalı film izlemiş olma, izlenen eğitim temalı film sayısı, cinsiyet, bölüm ve sınıf düzeyinin öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algı ve öğretmenlik mesleğine yönelik tutumları üzerindeki etkilerini belirlemek amacıyla beş tane tek yönlü MANOVA yürütülmüştür.

3.6 Araştırmaın Varsayımları


3.7 Araştırmaın Sınırlılıkları


4. Bulgular

Betimsel analizlerin bulgularına göre katılımcıların %79.55’i (n = 315) kadın ve %20.45’i (n = 81) erkektir. Bu adayların %44.70’i (n = 177) İÖ, %20.45’i (n = 81) FBE, %19.44’ü (n = 77) İME, %10.10’u (n = 40) BÖTE ve %5.30’u (n = 21) OÖFME (ME, FE ve KE) programlarına kayıtlıdır. Ayrıca, adayların %41.92’si (n = 166) üçüncü sınıf, %30.81’i (n = 122) dördüncü/beşinci sınıf ve %27.27’si (n = 108) ikinci sınıf öğrencidir.

Çalışmanın birinci araştırma sorusuna ilişkin ilk olarak betimsel analiz, daha sonra da içerik analizi yapılmıştır. Bulgular, adayların %93.69’unun (n = 371) en az bir eğitim temalı film izlediğini, %6.31’inin (n = 25) ise daha önce eğitim temalı film izlemesidir. Ayrıca, adayların %29.55’inin (n = 117) iki, %21.46’sının (n = 85) üç, %20.96’sının (n = 83) bir, %13.13’unun (n = 52) dört, %8.59’unun (n = 34) beş ya da daha fazla eğitim temalı film izlediğini belirlemiştir. Bulgulara göre 18 film birden fazla kez izlenmiş, 26 film de adaylar tarafından etkileyici bulunmuştur.
İçerik analizinden elde edilen bulgulara göre adayların filmleri neden birden fazla kez izlediklerine ilişkin yanıtları sekiz kategoride toplanmıştır. Bunlar, filmin hikayesi ve filme verilen mesajlar, öğretmen özellikleri, eğitim sistemine ilişkin eleştiriler, ilişkilendirilebilir olma, filme karakterler, bilgilendirici olma, rehberlik edici ve motive edici olma ve öğretim materyali olarak kullanılmıştır. Adayların filmlerinden elde edilen bulgulara göre adayların filmleri neden birden fazla kez izlediklerine ilişkin yanıtları ise beş kategoride toplanmıştır.

Eğitim temalı film izleme öğretmen adaylarının etkili öğretmen niteliklerine yönelik algıları ve öğretmen mesleğine yönelik tutumları üzerindeki etkisini belirlemeeye yönelik olarak yapılan tek yönlü MANOVA, bu filmlerin bağımsız değişkenler üzerinde etkiye sebep olduğunu ortaya çıkarmıştır, Wilk’s Λ = .98, F (2, 393) = 3.72, p < .05, η² = .02. Ayrıca, daha önce eğitim temalı film izlemiş olan adayların mesleğe yönelik tutumlarının istatistiksel anlamda daha olumlu olduğu, F (1, 394) = 6.68, p < .025, η² = .02, etkili öğretmen niteliklerine ilişkin algılarının ise eğitim temalı film izlememiş olan adaylardan farklılaşmadığı görülmüştür, F (1, 394) = .01, p > .025. İzlenen eğitim temalı film sayısının bağımsız değişkenler üzerindeki etkisini belirlemeeye yönelik olan yapılan tek yönlü MANOVA ise izlenen film sayısının değişikler üzerine anlamlı bir etkiye sebep olmadığını göstermiştir, Wilk’s Λ = .96, F (10, 778) = 1.53, p > .05.

Betimsel analizler öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algılarının olumlu olduğunu ve adayların en çok “öğrencileri destekler”, “öğrencilerin yeteneklerine saygı duyar”, “açık ve anlaşırlı açıklamalar yapar” ve “öğrenciler arasındaki bireysel farklılıklara hoşgörü ile yaklaşır” maddelerine katıldığını ortaya çıkarmıştır. Benzer şekilde, adayların öğretmen nitelik mesleğine ilişkin tutumlarının genel olarak olumlu olduğu ve en çok “Öğretmenlik sorumluluğ sahibi olmayı gerektiren bir meslektir”, “Öğretmenlik toplumun kalkınmasına katkı sağlayacak bir meslektir” ve “Öğretmenlik fedakâr olmayı gerektiren bir meslektir”
maddelerine katıldığı görülmüştür. Öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algıları ve öğretmenlik mesleğine yönelik tutumları arasında bir ilişki olup olmadığını anlamak için hesaplanan Pearson korelasyon katsayısı, \( r = .36, p = .00 \), değişkenler arasında istatistiksel açıdan anlamlı, orta düzey, pozitif bir ilişki olduğunu göstermiştir.

Cinsiyetin, bölümün ve sınıf düzeyinin etkisini araştırmak için yapılan MANOVA'ların bulguları, cinsiyetin, adayların etkili öğretmen niteliklerine ilişkin algıları ve öğretmenlik mesleğine yönelik tutumları üzerinde istatistiksel olarak anlamlı bir etkisi olduğunu göstermiştir, Wilk’s \( \Lambda = .93, F (2, 393) = 15.88, p < .05, \eta^2 = .08 \). Ayrıca, kadın öğretmen adaylarının hem etkili öğretmen niteliklerine ilişkin algılarının, \( F (1, 394) = 11.54, p < .025, \eta^2 = .03 \), hem de mesleğe yönelik tutumlarının erkeklerde göre istatistiksel anlamda daha olumlu olduğu bulunmuştur, \( F (1, 394) = 28.87, p < .025, \eta^2 = .07 \).

Tek yönlü MANOVA, bölümün de bu değişkenler üzerinde etkiye sahip olduğunu göstermiştir, Wilk’s \( \Lambda = .85, F (8, 780) = 8.57, p < .05, \eta^2 = .08 \). Benzer şekilde, bölümün, öğretmen adaylarının mesleğe yönelik tutumları üzerinde de etkili olduğu ortaya çıkmıştır, \( F (4, 391) = 15.61, p < .025, \eta^2 = .14 \). Bulgular incelediğinde, OÖFME (\( M = 4.16, SD = .61 \)) ve İÖ (\( M = 3.86, SD = .61 \)) bölümlerindeki öğrencilerin öğretmenlik mesleğine yönelik tutumlarının BÖTE (\( M = 3.53, SD = .61 \)) öğrencilerinden istatistiksel anlamda daha olumlu olduğu görülmüştür. Ayrıca, İME (\( M = 4.20, SD = .50 \)) ve FBE (\( M = 4.23, SD = .49 \)) bölümlerindeki öğretmen adaylarının mesleğe yönelik tutumları BÖTE (\( M = 3.53, SD = .61 \)) ve İÖ (\( M = 3.86, SD = .61 \)) bölümlerindeki adaylardan istatistiksel açıdan daha olumludur. Öte yandan, bölümün etkili öğretmen niteliklerine ilişkin algı üzerinde etkisi olmadığı ortaya çıkmıştır, \( F (4, 391) = 1.42, p > .025 \).

Ayrıca, bulgular, sınıf düzeyinin öğretmen adaylarının etkili öğretmenlerin sahip olduklarını nitelikler hakkındaki algıları ve mesleğe yönelik tutumları üzerinde önemli bir etkisi olmadığını göstermiştir, Wilk’s \( \Lambda = .99, F (4, 784) = 1.28, p > .05 \).
5. Tartışma ve Öneriler

5.1 Tartışma


Betimsel analizler sonucunda, öğretmen adaylarının etkili öğretmen nitelikleri hakkında olumlu algılar sahip olduğu görülmüştür. Bu bulgu, bazı çalışmalarla tutarlılık gösterirken (Akın, 2017; Minor vd., 2002; Ogden vd., 1994), bazı


Benzer şekilde, tek yönlü MANOVA, bölümün, adayların etkili öğretmen niteliklerine ilişkin algıları ve mesleğe yönelik tutumları üzerinde istatistiksel olarak anlamlı bir etkisi olduğunu göstermiştir. Ayrıca, bölümün, öğretmen adaylarının öğretmenlik mesleğine yönelik tutumları üzerinde etkisi olduğu ortaya çıkmıştır. Bu bulgular, Üstüner ve diğerleri (2009), Aksoy (2010), Özder ve diğerleri (2010),


5.2 Uygulamaya Yönelik Öneriler

Analizler sonucunda kadın öğretmen adaylarının etkili öğretmen niteliklerine ilişkin algılarının ve mesleğe yönelik tutumlarını erkeklerden daha olumlu olduğu görülmüşdür. Öğretmenliğin kadın mesleği olduğuna ilişkin önyargı yıkılmalı, adayların etkili öğretmen olmanın cinsiyete bağlı olmadığını anlamaları sağlanmalıdır.

Farklı bölümlerdeki öğretim üyeleri ve öğretmen adaylarıyla görüşmeler yapılırak öğretmen adaylarının mesleğe yönelik tutumlarını ve etkili öğretmen niteliklerine ilişkin algılarını etkileyebilecek faktörler belirlenmelidir. Ayrıca, adayların tutumlarını ve algılarını geliştirecek etkinlikler yapılmalıdır.

Bulgular, öğretmen adaylarının mesleğe yönelik tutumlarının ve etkili öğretmen niteliklerine ilişkin algılarının sınıf düzeyine göre değişmediğini ancak 2. sınıf öğrencilerinin tutum ve algılarının diğer sınıf düzeylerindeki öğrencilerden daha düşük olduğunu göstermiştir. Bu nedenle, eğitim fakültelerinde verilen dersler gözden geçirilme, öğretmen adaylarının mesleklerini öğrenmeleri ve deneyimlemeleri için daha fazla fırsatlar sunulmalıdır.

5.3 İleride Yapılacak Araştırmalar için Öneriler

İleride yapılacak araştırmalar için aşağıdaki önerilerde bulunmuştur:

1. Değişkenler arasında neden-sonuç ilişkisi kurabilmek ve filmlerin etkilerini daha iyi anlamak için öğretmen adaylarıyla karma desen bir çalışma yürütülmelidir.

2. En çok izlenen/izletilen filmlerin içeriklerini incelemek ve bu filmlerin sınıf içinde nasıl kullanıldığını anlamak amacıyla nitel bir araştırma yapılmalıdır.


4. Öğretmen adaylarının algıları ile tutumlarında etkili olabilecek faktörleri daha iyi anlamak için nitel bir çalışma yürütülmeli ya da bu çalışma, araştırmaya...
nitel bir aşama ekleyerek tekrarlanmalıdır.

5. Bu çalışma, başka şehir ve üniversitelerde tekrarlanmalı ve benzer bir çalışma birinci sınıf öğrencileriyle de yapılmalıdır.
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