Why do Students Cheat in Examinations in Turkey?  
A Meta-Synthesis Study

Murat POLAT

ABSTRACT
The main purpose of this study is to determine the possible causes behind the tendency of students in Turkey to exhibit cheating behavior in the exams directly from the results of research conducted on the subject. This research is a meta-synthesis study that was planned in the qualitative research design. Within this scope; three master's theses and 28 research articles which are accessed using databases such as the Google Academic search engine, TUBITAK Ulakbim DergiPark, the Turkish Council of Higher Education National Thesis Center, EBSCOhost, and ERIC and directly linked to the topic, were subjected to content analysis. The sample group of the studies used for the analysis is secondary school, high school, and university students, prospective teachers of education faculty, teachers, and instructors working in schools. According to the content analysis performed, it was seen that the topical studies conducted in Turkey mainly concentrated on two sub-dimensions. These are studies that aim at revealing the reasons of students’ tendency towards cheating behaviors in exams, and attitude levels of opinions about cheating behaviors in exams and what measures could be taken. The majority of the investigated studies were conducted with prospective teachers (n=15) and the research methods of the studies were mostly based on the quantitative method (n=20). In the context of the data presented and discussed in this current study, it is anticipated that the results will be useful in guiding future research and providing in-service training for teacher training programs.

Key Words: Cheating in exams, Cheating behavior in exams, Meta-synthesis, Content analysis, Studies done in Turkey

DOI Number: http://dx.doi.org/10.22521/jesr.2017.71.7

1Assist. Prof. Dr. - Muş Alparslan University, Faculty of Education - m.polat@alparslan.edu.tr
INTRODUCTION

Cheating behavior in exams is perhaps at the top of the list of unwanted student behaviors. Many studies in Turkey and in other countries have reported that cheating behavior in exams is shown by students in various ways. As stated by Lanier (2006), a large amount of the literature indicates that the vast majority of students exhibit cheating behaviors in class or during exams (Lanier, 2006). The frequent appearance of cheating in exams is an almost undisputable fact of today’s educational environment.

In fact, it is seen that the word “cheat” (Turkish Language Association [TDK], 1997) is expressed by definitions which are close to each other but through different methods. Cheating is thus defined as “imitation of a work of art or a written text” or “the paper that is prepared for looking secretly as contrary to the rules in the written examination”, whereas “cheating in the exams” is usually called “taking a look at a source secretly during the exams as contrary to the rules” (Eminoğlu, & Nartgün, 2009). Cheating is also expressed in some sources as using unauthorized references in exams and academic papers, or getting someone else to do homework or a test (Central Piedmont Community College, 2001 Cited in: Moeck, 2002, p. 481). However, it appears that cheating is generally handled in two different ways in the literature, as cheating in homework and cheating in examinations. Cheating in homework is about plagiarism. Here plagiarism is meant citing and taking some parts of the text from reference sources without the expressed permission from the owner or author, or copying the work of other students without their permission. On the other hand, cheating in exams covers many activities such as making a ‘cheat sheet’, and cheating in exams using hand and foot movements (Croucher, 1994 Cited in: Marsden, Carroll, & Neill, 2005). In other words, cheating is a benefit that students gain for themselves or for another student through unethical actions before or during an exam so as to realize success (Özden, & Özden, 2015).

When the literature is examined, it can be said that there is evidence that shows that cheating in exams and plagiarism are becoming increasingly common nowadays and are frequently encountered behaviors among students (Park, 2003). Especially, cheating in exam is accepted as one of the most undesirable (Top 5) student behaviors (Charles, 1992; Siyeyz, 2009). In this context, it is seen that research about cheating in exams has taken place in the United States, United Kingdom, Canada, Japan, New Zealand, and other countries for many years (Lin & Wen, 2007). However, in Turkey, much of the research conducted in higher education (Eret, & Ok, 2014; Ersoy, 2014; Ersoy, & Karaduman, 2010; Ersoy, & Özden, 2011; Orhan, & Günay, 2014; Yeşilyurt, 2014) that has addressed plagiarism and cheating in exams (Seven, & Engin, 2008; Ünlü, & Eroğlu, 2012; Yangın, & Kahyaoğlu, 2009) has only taken place in recent years (Özden, Özden, & Biçer, 2015).

Research has shown that cheating behaviors exhibited in exams as a rather common phenomenon (DePalma, Madey, & Bornschein, 1995; Simkin, & McLeod, 2010) is almost a part of our life culture (Brown, 2002). In fact, most students regularly prefer cheating in exams while few profess to never cheat in their exams (Kerkvliet, & Sigmund, 1999). Furthermore, there is ever-increasing research evidence that the cheating behavior in exams has increased recently (Diekhoff et al., 1996; Klein, Levenburg, McKendall, & Mothersell, 2007; McCabe, Treviño, & Butterfield, 2001; Tennant & Duggan, 2008 Cited in: Ahmadi, 2012). The main reason for this increase is that cheating behavior in exams is often not seen as a negative behavior by students (Diekhoff et al., 1996). Similarly, it is also stated that cheating in exams is among the moderate undesirable behaviors (Demir, 2011).
In Turkey, which has collectivist features, it can even be interpreted that cheating behavior in exams is seen as a way of helping others or that it is considered natural. It is stated that legitimizing of the cheating behavior in exams as a form of help reduces the issue of moral conflict by influencing the cheating behavior in exams in collectivist societies like Turkey, in which people are more sensitive about completing each other’s deficiencies (Cesur, 2010). On the other hand, according to Brown and Emmett (2001), there has been no increase in the issue of cheating behavior in exams, contrary to what has been believed for the past 33 years. There is also mixed evidence that shows that cheating behavior in exams is a flexible problem that occurs in small waves, and is largely overstated and that the points to not only a single form of cheating in exams, but an increase in different forms of cheating (McCabe, & Treviño, 1993; Vandehey, Diekhoff, & LaBeff, 2007 Cited in: Ahmadi, 2012). For example, today, the tendency of students to cheat increases not only at the time of the exam, but also for online courses, training, and for educational environments based on remote internet applications such as telephone, tablet, headset etc. by means of technological tools (Staats, Hupp, Wallace, & Gresley, 2009; Watson, & Sottile, 2010).

So why do students cheat in the exams?

**Factors Affecting Cheating Behaviors in the Exam**

According to the research, in order to understand the factors affecting the behavior of students cheating in exams, firstly the moral understanding of the individual, or the system of values they possess must be known. For this, three basic moral levels of Kohlberg’s (1971) causal moral theory consisting of six subcategories can be considered (Cited in: Watson, & Sottile, 2010). In this context, the moral decisions of humans are shaped around basic human needs and cultural rules at the first level of moral understanding. At the second level, ethical decisions are mostly shaped in accordance with perceived conditions and expectations of family, community or nation. While, at the third level of moral understanding, the moral values of a person are also values that are binding and valid for every other individual or group at the same time. Thus, if a student cheats in an exam in terms of Kohlberg’s theory, the student’s behavior may be a sign that perhaps he is still at the first level of causal morality and has a weak moral understanding (Bernardi et al., 2004; Watson, & Sottile, 2010). In other words, it can be stated that students who exhibit cheating behaviors in exams with this understanding may have shaped their own moral understanding only around basic human needs and cultural rules.

However, according to the common result of many different kinds of studies on cheating behavior in exams, it can be stated that the factors affecting cheating behavior in exams of the individuals are generally aggregated in three sub-dimensions. These sub-dimensions are stated as individual factors (gender, age, level of education, etc.), situational factors (peer oppression, class presence, etc.), and implemented corporate policies (exam rules, corporate ethics codes/rules) (Ahmadi, 2012; Özden, Baştürk, & Demir, 2015). For example, when meta-analysis studies on gender, one of the individual factors, are examined, it is seen that the gender variable has an effect on the cheating behavior in exams. According to this, males have a more likely tendency to exhibit cheating behaviors in exams than females. In other words, males have more positive attitudes towards cheating in exams than do females in terms of their moral values (Whitley, Nelson, & Jones, 1999). In addition, although it is claimed in some research that there is no meaningful difference between the genders, or that females have a higher tendency to exhibit cheating behaviors in exams than do males in some
studies, it is seen in many studies that males have the higher tendency to exhibit cheating behaviors in exams than females (Baird, Kelly, & Worrell, 1978; Graham, Monday, O’Brien, & Steffen, 1994; Hetherington & Feldman, 1964; Jacobson, Berger, & Millham, 1970; Karabenick & Srull, 1978; Roth & McCabe, 1995; Whitley, 1998, as cited in Jensen, Arnett, Feldman, & Cauffman, 2001). On the other hand, according to the literature, there is a negative relationship between age and cheating behavior in exams.

Research shows that younger students have a greater tendency to exhibit cheating behavior in exams than older students. That is, in general, the tendency of a person to exhibit cheating behaviors in exams decreases with maturity (Antion, & Michael, 1983; Coombe, & Newman, 1997; Diekhoff et al., 1996; Graham et al., 1994; Klein et al., 2007; Vandehey et al., 2007; Whitley, 1998). Similarly, a negative relationship was found between education level and the tendency to exhibit cheating behavior in exams (Diekhoff et al., 1996; Graham et al., 1994; Haines, Diekhoff, LaBeff, & Clark, 1986; Nazir, & Aslam, 2009; Rakovski, & Elliott, 2007; Whitley et al., 1999). For example, first grade students have a higher tendency to exhibit cheating behavior in exams than students from upper grade levels (Jordan, 2001).

When cheating behavior in exams is considered in terms of situational factors; according to Graham et al. (1994), Kibler and Kibler (1993), and Stevens (1987), peer oppression on students reinforces signally their tendency to accept cheating behavior in the exam as a normal behavior (all three works cited by Ahmadi, 2012). Jensen et al. (2001) also found in their studies that students consider cheating behavior in exams as a natural behavior due to peer pressure like “wrong, but everyone does” despite the beliefs of many high school students that cheating in exams is indeed wrong behavior. It is also evident that some research reached the conclusion that one of the situational factors is class size, which is an important factor for students in respect of exhibiting cheating behavior in the exam. For example, the tendency of students to exhibit cheating behavior in exams is increasing in classes of more than 50 participants (Coalter, Lim, & Wanorie, 2007). In other words, students have less tendency of cheating in exams where the classes they are in are small (Houston, 1976; Klein et al., 2007).

Given the individual and situational factors that are ultimately explained by these examples and which are thought to be important influences on the students’ cheating behaviors in exams, it can be stated that the institutional policies conducted against these factors in schools or institutions can also form a basis for the tendencies of students towards cheating in exams.

Hence, according to Jordan (2001) and McCabe, Treviño, and Butterfield (2001), there is a relationship between institutionalization level in a school or institution, institutional policies on the exam and other applications, and the perception level of students on these policies. Furthermore, it was reported that the ethical codes/rules found in institutions in terms of functioning have various effects on the cheating behaviors in exams of students. For example, some research (May, & Loyd, 1993; McCabe, Treviño, & Butterfield, 1999; McCabe et al., 2001; McCabe, & Treviño, 1993) found that pre-established and announced ethical rules in schools are composed of a number of behavioral effects that reduce cheating behaviors of students in exams. However, most of these behavioral effects can also occur over a long period of time. In addition, the presence of ethical codes/rules in an institution or school does not mean that almost all problems can be resolved through these ethical codes.

As seen, it is understood that there have been numerous studies in different countries on cheating behaviors in exams and the influencing factors that this behavior has on students. The main reason for this is the importance of examining the trends of increasingly prevalent
research results, especially in regard to cheating in exams, in order to better understand copying behavior (McCabe et al., 2001). However, in Turkey, no extensive research was encountered that clearly showed why students generally tend to cheat in their exams.

In summary, this research includes studies conducted in Turkey on cheating behaviors in the exams between 1995-2016. The results obtained are limited to the content of 31 studies (see Appendix 1). Variables such as attitude towards the teaching profession, perception about cheating in exams, and behaviors of teachers and instructors, were examined in addition to cheating behavior in exams. However, since only cheating behavior in exams was addressed in this study, data not directly associated with cheating behavior was excluded from the study.

Purpose and Sub problems of Research

It was aimed to reveal the tendency about the issue of cheating in exams in Turkey through analysis of theses, articles, and other academic papers, and to conduct a meta-synthesis method research on students’ cheating behaviors exhibited in exams as reported by researchers publishing in Turkey. According to this, in light of the direct studies carried out regarding the cheating behaviors of students in exams in Turkey, answers to the following research questions were sought:

- What objectives were aimed to be achieved with the current studies?
- Which factors were related with the topic (individual factors, situational factors, monitored corporate policies)?
- Which methods were used and how was the process carried out?
- Which study or sample groups were preferred for the research?
- What data collection tools were used and for what purposes?
- What kind of results were obtained in these studies?

In addition, with the help of this article, researchers may be prevented from working unnecessarily on similar or identical studies as it will be clearer which topics have already been studied with regard to cheating behaviors in exams.

METHOD

Research Design

This research was conducted as a content analysis meta-synthesis study that was carried out in the qualitative research design (Kaleli-Yılmaz, 2015). Unlike meta-analysis, which analyzes quantitative data, meta-synthesis contains more comments (Walsh, & Downe, 2005). In other words, meta-synthesis is a study which examines and interprets the findings of multiple studies (Finfgeld, 2003). Meta-synthesis is the process of interpreting and synthesizing studies on the same topic with a critical point of view by constituting themes or main templates. In addition to this, with a meta-synthesis research, it was aimed to reveal similarities and differences of studies performed in a certain area with a qualitative understanding through comparison, and providing a rich reference for researchers, teachers and other interested persons who may not have the opportunity to assess all the relevant studies. (Çalık, & Sözbilir, 2014). In the context of this research, a meta-synthesis study was conducted by the Turkish researchers with the aim of analyzing studies directly associated with cheating behaviors in exams through qualitative methods, and determining the tendency in this subject.
Collection of Data

In the process of collecting the data, when the foreign literature was examined, it was seen that the keywords “Cheating in the exam”, “Cheating behavior in the exam”, and “Academic dishonesty”, which are directly related to the subject of research, were frequently found in the studies. For this reason, in this current research, these same keywords were used when performing the searches by means of the Google Academic search engine, TUBITAK Ulakbim DergiPark, Council of Higher Education National Thesis Center, EBSCOhost, and ERIC databases. While these sources were determined, it was sought that the sample should be stipulated to have been studied within the borders of Turkey and that the articles, theses, or declaration studies were conducted by researchers from Turkish institutes. Studies found to be inaccessible or not of full text were excluded from the research. Also, in case of a study that was published as a paper or thesis at the same time as an article with the same name, only the published article was selected by this research in order to avoid same data duplication (Kaleli-Yilmaz, 2015). After this elimination process, research was carried out on 31 studies, 28 of which are published articles and three master’s theses.

Coding Process

Firstly, the relevant parts of each of the studies included in the research were read in detail and the obtained data noted for each paper. Afterwards, the data were rechecked and any unnecessary parts removed. Summary data for each study were recorded. The studies were examined one by one according to their research problems and codes for each theme were constituted. In addition, the examined studies were encoded as (M1, M2, ... M26) for articles, as (T1, T2, T3) for thesis studies, and as (G1, G2) for scale development studies, and these codes are used throughout the research.

Data Analysis, Validity, and Reliability Studies

Studies were examined over a long period of time so as to avoid any errors during encoding. All summarized information were put down on paper. After about two weeks, the researcher re-performed the analyzes so as to ensure the encoding was reliable, and found a confidence level of 94% using the formula [Reliability = number of overlap / (number of overlap + number of non-overlap)] formula (Miles, & Huberman, 2002). Values at 70% and above obtained from this formula are sufficient for reliability (Yıldırım, & Şimşek, 2011). In addition, the studies were reviewed by two lecturers, one of whom is expert in the field of educational science and the other an expert in the field of meta-synthesis. Thus, the validity and reliability of the data was checked.

However, primarily, the data obtained from quantitative and qualitative studies for each theme were presented in the studies as tables or graphs. Frequencies were taken to support tables and graphs as statistics. After a general explanation was presented under each table or graph, the similarities and differences found in the studies were analyzed in detail using the content analysis method, according to the degree of significance. The purpose of presenting the data in this way is to ensure to have an idea at first sight about the studies carried out and to make them more visual (Kaleli-Yilmaz, 2015).
FINDINGS

Purposes of studies on the subject of exam cheating

Table 1 details the explanations regarding the purposes of the studies examined within the scope of the research.

Table 1. Data regarding the purposes of the studies examined

<table>
<thead>
<tr>
<th>Purposes</th>
<th>Studies</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of student opinions on the subject of cheating in exams</td>
<td>M3, M4, M5, M6, T1, M12, M13, M15, M18, M19, M21, M22</td>
<td>12</td>
</tr>
<tr>
<td>Examination of student attitudes towards the subject of cheating in exams</td>
<td>M4, M5, M6, T1, M11, M14, M15, M16, M17, M20, M24, M26</td>
<td>12</td>
</tr>
<tr>
<td>Investigation of causes of cheating behavior in exams</td>
<td>M7, M9, M10, M13, M16, T2, M22, M23, M26</td>
<td>9</td>
</tr>
<tr>
<td>Examination of the relationship between cheating behavior in exams and different variables</td>
<td>M1, M4, M8, M16, M17, M24, T3</td>
<td>7</td>
</tr>
<tr>
<td>Determination of frequently used the methods of cheating in exams</td>
<td>M10, M13, M22</td>
<td>3</td>
</tr>
<tr>
<td>Developing scale/questionnaire about cheating in exams</td>
<td>G1, G2</td>
<td>2</td>
</tr>
<tr>
<td>Evaluation of behaviors exhibited by teachers/faculty members to prevent cheating in exams</td>
<td>M2, M8</td>
<td>2</td>
</tr>
<tr>
<td>Determination of the rates of cheating in exams</td>
<td>M16, M3</td>
<td>2</td>
</tr>
<tr>
<td>Determination of teacher’s views on the subject of cheating in exams</td>
<td>T1</td>
<td>1</td>
</tr>
<tr>
<td>Examination of cheating behaviors in exams based on the literature</td>
<td>M25</td>
<td>1</td>
</tr>
<tr>
<td>Determination of course groups in which cheating in exams was more prevalent</td>
<td>M3</td>
<td>1</td>
</tr>
<tr>
<td>Developing suggestions to prevent cheating in exams</td>
<td>M2</td>
<td>1</td>
</tr>
</tbody>
</table>

In Table 1, it was seen that a large part of the studies were conducted in order to determine students’ views and attitudes towards cheating in exams, to examine the causes of cheating behavior in exams, to examine the relationship between different variables, to develop a scale/questionnaire regarding cheating in exams, to test validity and reliability, and to determine frequently used methods of cheating in exams. There are also a few studies conducted for other purposes.

Factors in studies regarding exam cheating

Table 2 shows the studies investigated in the context of the research, and explanations related to factors connected to the tendency to cheat in exams within sub-dimensions of individual factors, situational factors, and pursued institutional policy.
According to Table 2, it was found that the focus was on a certain factor in only 11 of the studies regarding cheating behavior in exams, while in others, phenomenon such as opinions, perception, and qualification etc. had tried to be determined. In this context, it is noteworthy that the factors dealt with in the studies examined related more to individual factors affecting cheating behaviors in exams. Studies related to the areas of academic achievement/gain and academic dishonesty (T2, T3, M23, M9, M12, M21) come to the fore in the individual factors dimension affecting cheating in exams. Among these studies, M23 was the only article of which the subject of academic achievement/gain was dealt with, whereas the others are master’s theses (T2, T3). However, the fact that only 11 of 31 studies examined focused on a specific subject area reveals the academic research deficiency in this area. Indeed, given the fact that cheating behaviors in exams are an accepted undesirable behavior in almost all kinds of educational environments, that the studies to be carried out including situational factors that influence cheating behaviors in exams and the pursued institutional policies are more inclusive, will clearly have an effect on individuals for preventing cheating behavior in exams (Charles, 1992; Kesici & Sarpkaya, 2013; Siyez, 2009).

Methods used in studies on exam cheating

Tables and explanations regarding the methods applied in the studies investigated within the scope of the research are as follows:
Table 3. Data on the methods of the studies examined

<table>
<thead>
<tr>
<th>Factors</th>
<th>Studies</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>M1, M2, M3, M4, M5, M6, M7, M10, M11, M12, M14, M15, M16, M17, M18, M20, M26, G1, G2, T1</td>
<td>20</td>
</tr>
<tr>
<td>Relational research method</td>
<td>M8, M24, T2, T3</td>
<td>4</td>
</tr>
<tr>
<td>Qualitative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case study</td>
<td>M9, M13, M19, M22</td>
<td>4</td>
</tr>
<tr>
<td>Phenomenological research</td>
<td>M21, M23</td>
<td>2</td>
</tr>
<tr>
<td>Literature Review</td>
<td>M25</td>
<td>1</td>
</tr>
</tbody>
</table>

As shown in Table 3, the survey method included in the quantitative research methods was preferred in a significant majority of the studies examined. It was seen that data were collected with a small number of measuring instruments, with almost all of the studies using the survey method to test the current situation within short-term investigations. Two of the studies using the relational research method are master’s theses (T2, T3) and another two are articles (M8, M24). In relational survey studies, data were collected over a short period of time by only employing the scale method of data collection.

All of the studies in which the case study method was used are articles (M9, M13, M19, M22). The case study method was used in only two studies with data obtained from semi-structured in-depth interviews with few individuals (M21, M23). In addition, when Table 3 is examined, it can be seen that the literature review method was performed in only one study (M25). In this current study, handicapping, cheating in exams, showing favor and doping issues which are frequently encountered in Turkey’s agenda are handled in a systematic review based on the literature.

**Sampling group of studies dealing with exam cheating**

Of the studies examined in the context of the research, 15 of them were conducted with prospective teachers, five with high school students, four with university students, two with theology faculty students, two with physical education and sports high school students, one with middle school students, one with medical school students, one with police school students, one with teachers, one with non-thesis graduate students, and one with English preparatory school students. Whereas, for one study there was no sample group since the study was a literature review. However, when Figure 1 is examined, it can be seen that the mixed sample group consisting of prospective teachers in different fields of study was found the most among studies conducted with prospective teachers.

![Figure 1. Sample distribution for prospective teachers by field of study](Note: ERE – Education of Religion & Ethics)
Data collection tools used in the studies of exam cheating

The methods of the studies investigated in the research are given in Figure 2.

As shown in Figure 2, the scale/questionnaire was used in 24 studies examined in the context of the current research. The reason why the scales and questionnaires are grouped under the same heading is that in most of the studies that are examined result from using the term questionnaire instead of scale or scale instead of questionnaire. It was seen that a large number of different scales/questionnaires were used such as attitude scale for cheating in the exam, opinion questionnaire and control list in the studies examined. Although scales/questionnaires seemed to have been used to depict the general situation in a significant part of the studies, they were also used in some studies to determine the relationship between cheating behavior in exams and different variables (M20, M24, T2, T3).

Interview was used in four of the studies. Mostly semi-structured meetings (M9, M19, M22) and in-depth interviews (M25) were preferred. As a result of the examinations, it was seen that documents (written test papers, reports) were seen to be used in two studies. One of them is the exam paper (M13) and the other is the report (M25). In the examinations made, only one study was encountered that used the literature.

Results obtained from studies of exam cheating

The results obtained from the investigated studies are examined in detail and the results that are directly associated with cheating behavior in exams are given in Table 4.
When Table 4 is examined, it can be seen that individual/personal factors most affect students’ cheating behaviors in exams.

In general, this factor is constituted of the following sub-factors such as fear of failing the course, forgetting information due to excitement, failure to prepare for exams (M9, M18), being ashamed for family and surroundings, the extension of school time, no self-confidence to achieve a good grade without cheating in the exam (M26), not liking the lesson or the teacher (M7), low self-efficacy perception, high self-handicapping behavior (M8), failure, exclusion, getting low grades (M10, M22), perceived success level (M12, M16), exam anxiety (M16), bringing good grades to the family (M17), habit of cheating in exams, pressure to be successful, inability to memorize (M18), low self-esteem (M23), desire to get high grades, fear of getting low grades, desire to finish school (M26) and noncontinuance, academic postponement, and commitment to the school (T3).

According to the studies examined on this topic, it was determined that the students viewed cheating in exams as immoral (M5, M16, M21, M22), bad behavior (M3, M5, M21), and academic dishonesty (M5, M7). However, in spite of this, it was emphasized in the studies that the students are more prone to cheating in exams, or they actually cheat in exams (M3, M7, M9, M12, M13, M15, M16, M18, M19, M22, M24, M25, M26). According to some studies, 65% and 72% of students, while in some studies 81% or even 85% of students, were found to be prone to cheating behaviors in exams. In this context, it can be said that exhibiting cheating
behavior in exams by students is a serious problem (M1, M3, M10, M12, M16). However, according to the opinions of the students, current education and examination systems and memorization-based teaching methods encourage cheating behaviors in exams (M5, M6, M9, M10, M12, M17, M18, M22, M26). Particularly in studies, it was seen that there was a significant relationship between gender and cheating behaviors in exams. In these studies, it was found that males had a positive attitude, opinion, or inclination towards cheating in exams at a higher rate than female students (M1, M12, M15, M18, M20, T1). In a small number of studies, it was stated that female students reported more positive opinion about cheating behavior in exams than male students (T3). On the other hand, as the age level of students increases, their tendency to cheat in exams decreases (M7, T3).

There is a significant relationship between learning level and cheating behavior in exams as an individual factor, according to a small number of studies (M10). Furthermore, it has been revealed that there is a significant relationship between the individual’s attitude towards the profession and cheating behavior in exams (M20, T3), and that cheating in exams also influences the future life of the individual (M14). On the other hand, there are studies reporting that both situational factors (M10, M11, M15, M16, M18, M22, M23, T1) and the pursued institutional policies (M9, M15, M17, M22, M23) have an effect on cheating in exams.

In this context, it was found that there was also a high correlation between the behavior of teachers and instructors and the students’ tendency towards cheating behaviors in exams. From the point of view of these relations, the instructors can prevent cheating in exams by acting meticulously according to university students (M5). It was also found that students who have perceptions that the teacher teaches the lesson effectively indicated that they cheat less in exams (M8). On the other hand, all instructors should be consistent in the application and follow-up of exam rules and should not tolerate cheating (M9). In addition, examination regulations that prevent unethical attitudes and behaviors of instructors in examinations must be applied effectively (M11). That instructors want students to take notes regarding subjects taught in class and sometimes write these on the exam paper word-by-word, and thus encourage memorization-based learning constitutes a negative effect on students’ tendency towards cheating in exams. In addition, it was seen that the supervisor’s attitude during exams affects the level of cheating in exams (M26), strict and careful supervisors make it difficult to cheat in exams (M19). That attitude of teachers with regard to the course during the semester (M22), homework not read by teachers, and supervisory instructors inattentive during exams (M23), were indicated as reasons for cheating behaviors in exams. In addition, cheating in exams occurs mostly in multiple-choice exams, according to the students (M5, M6, M7, M15, M19). As for the result of the scale development studies, it was emphasized that the developed scales are valid and reliable means of measurement (G1, G2).

**CONCLUSION, DISCUSSION, AND RECOMMENDATIONS**

As in other countries, exhibition of cheating behaviors in exams by students is seen as a serious problem in Turkey (Dam, 2013; Durmuşcelebi, 2011; Kaymakcan, 2002; Küçüktepe, & Küçüktepe, 2012; Selçuk, 1995). Accordingly, in studies in Turkey, 65% and 72% of students, while in some studies 81% or even 85% of students were found to be prone to cheating behaviors in exams.

As an individual factor influencing cheating in exams, studies found male students had more tendency to exhibit cheating in exams than female students. In other words, there is a significant correlation between the gender variable and cheating behaviors in exams in
Turkey. This result parallels with results of many other studies in other countries (Baird, 1980; Cochran et al., 1998; Davis et al., 1992; Graham et al., 1994; Hetherington, & Feldman, 1964; Jacobson, Berger, & Millham, 1970; Roth, & McCabe, 1995; Whitley, 1998 Cited in: Jensen et al., 2001). In a small number of studies, it was stated that female students reported a more positive opinion about cheating behaviors in exams than male students (Yıldırım, 2015). In addition, it was revealed that in terms of factors affecting cheating in exams in general, that individual factors determined in the studies in Turkey are composed of the following sub-factors; The fear of failing the course, forgetting information due to excitement, failure to prepare for exams, being ashamed for the family and surroundings, extension of the school time, having no self-confidence on getting a good grade without cheating in exams, not liking the lesson or the teacher, low self-efficacy perception, high self-handicapping behavior, failure, exclusion, getting low grades, perceived success level, exam anxiety, bringing good grades to the family, habit of cheating in exams, pressure of being successful, inability to memorize, low self-esteem, desire to get high grades, fear of getting low grades, desire to finish school and noncontinuance, academic postponement, and commitment to the school. It is seen that the majority of the individual factors identified overlap with the results of studies from other countries.

In a very small number of the studies examined, the focus was seen to be on a specific area such as situational/environmental factors and institutional policy pursuance that has an influence on cheating in exams. Whereas, when the factors affecting cheating behavior in exams are inspected, it is seen that there is a need to study not only the individual/personal factors, but also situational/environmental factors and pursued institutional policies. Especially in the studies, the existence of a meaningful relationship between the behaviors of the teachers and instructors (Alemdağ, & Alemdağ, 2015) in the class and exams (Çeliköz, 2016), and the exhibition of cheating behaviors in exams by students seriously increases the importance of institutional policies and situational factors in order to prevent cheating in exams. As a matter of fact, when the findings are examined, students who have perceptions that the teacher teaches the lesson effectively indicated that they cheat less in exams (Özgüngör, 2008); and it can therefore be said that students have the opinion that having teachers or lecturers who apply exam rules meticulously can prevent cheating in exams (Küçüktepe, & Küçüktepe, 2012; Semerçi, 2004). This result parallels to the results of studies that indicate a relationship between institutionalization level in a school or institution, pursued institutional policies on exams, and students’ perceptions about these policies in terms of cheating behaviors in exams (Jordan, 2001; McCabe et al., 2001).

On the other hand, the students’ tendency towards cheating behaviors in exams was found to be high in survey-type studies. Nevertheless, it was revealed that both teachers and students have various ethical and moral reactions such as asserting that cheating behaviors in exams is bad and unethical in studies whose data were collected through qualitative tools such as interview and document analysis. It is understood that this result is parallel with the literature from other countries (Bernardi et al., 2004; Watson, & Sottile, 2010). For this reason, it was noted that determining the ethical codes to prevent behaviors of copying in school exams and regularly informing students about these codes, and teachers exhibiting consistent behaviors at the point of application are important (Staats et al., 2009). In this context, it can be said that the collection of data by only quantitative methods is not comprehensive and that the findings obtained should be supported by qualitative data (Kaleli-Yılmaz, 2015).
Nevertheless, it was revealed that 15 of the 31 studies analyzed within the scope of the research were conducted with prospective teachers, with less studies having been carried out with teachers, postgraduate students and lecturers. According to Kaleli-Yılmaz (2015), the reason that most studies are carried out with prospective teachers is due to their ease of accessibility. This is perhaps also because a significant number of teachers in Turkey think that participating in such studies requires additional time and workload, and that they will not benefit from it, their deficiencies could be highlighted; and so prefer not to participate in these studies. They may also even forcefully complete a questionnaire or scale; trying to show themselves as more knowledgeable or equipped than they actually are. Since volunteering is essential in such studies, researchers need to persuade teachers to reflect their true feelings and thoughts. Data obtained from studies conducted with actively serving teachers and instructors can reveal more comprehensive information and give more beneficial results regarding the ‘current situation’, and what needs to be done. Of course, studies with prospective teachers, as the teachers of the future, are also very important (Kaleli-Yılmaz, 2015), because a prospective teacher with a lesser tendency to cheat in exams during his/her own years of education will be more successful in the profession as a teacher. This result also overlaps with some of the studies examined in the current study (Özyurt, & Eren, 2014; Yıldırım, 2015). However, considering that a significant number of the studies were carried out in Turkey with prospective teachers, conducting studies with serving teachers and instructors in the future would be important in terms of comparing the results to that of this current study.

As a result of the current study, it was seen that individual factors can especially increase students’ tendency with regarding to cheating in exams. For this reason, it is suggested that more emphasis should be put on social counselling services in order to reduce, prevent, or adjust these individual factors for students during the stages of their formal education. This situation should be reflected through institutional policies pursued with regard to counselling services in schools through different activities.

Teachers and instructors are in crucial positions as practitioners in schools, and should use this to frequently inform their students about the ethical and moral harms of cheating in exams and regarding the preventive institutional policies of their schools against exam cheating. This activity can also be realized through various awareness projects designed as action research. The fact that the studies carried out are largely quantitative and general survey in nature, points to a need to conduct serious action research on cheating behaviors in school exams.

It is advised to researchers studying in this area to focus on scale development/adaptation studies, rather than to purely focus of identifying the current situation, or carrying out their research based on practical studies as suggested in the literature as thought to be effective and aimed at preventing cheating behaviors in exams. As a result, it may be useful to employ mixed or qualitative research methods over a long period of time in research conducted on this subject area, and to include teachers and instructors as a sample in such studies. In addition, explaining the methods identified for cheating in exams and in which process it is generally applied, and explaining in detail, with examples, the effects of individual and situational factors and pursued institutional policies on students’ tendency to cheating behaviors in exams, is important in terms of leading the way for other researchers interested in this subject.
REFERENCES


Please cite as:
## Appendix 1. Studies included in the research

<table>
<thead>
<tr>
<th>Item</th>
<th>Research</th>
<th>Type of Research</th>
<th>Research Name</th>
<th>Collection Tools</th>
<th>Participants</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Selçuk (1995)</td>
<td>Specific Research</td>
<td>A problem of education and counselling: Cheating in exams in schools</td>
<td>Questionnaire</td>
<td>High school students (n=200)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M2</td>
<td>Tan (2001)</td>
<td>Specific Research</td>
<td>Measures to prevent cheating in exams</td>
<td>Questionnaire</td>
<td>Faculty of Education 3rd grade students (n=365)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M3</td>
<td>Kaymakcan (2002)</td>
<td>Specific Research</td>
<td>Approaches of theology students against cheating in exams</td>
<td>Questionnaire</td>
<td>Faculty of Theology students (n=337)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M4</td>
<td>Akdağ &amp; Güneş (2002)</td>
<td>Specific Research</td>
<td>Attitudes about cheating in exams and cheating behaviors in exams</td>
<td>Questionnaire, Scale</td>
<td>Faculty of Education 2nd and 4th year students (n=274)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>G1</td>
<td>Semerci (2003)</td>
<td>Scale Development</td>
<td>Attitude scale for cheating in exams</td>
<td>Scale</td>
<td>University students (n=321)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M5</td>
<td>Semerci (2004)</td>
<td>Specific Research</td>
<td>Attitudes and views of medical faculty students about cheating in exams</td>
<td>Scale</td>
<td>Medical faculty 5th and 6th grade students (n=73)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M6</td>
<td>Semerci (2005)</td>
<td>Specific Research</td>
<td>Attitudes and opinions of Police candidates about cheating in exams (Elazığ province example)</td>
<td>Questionnaire, Scale</td>
<td>Police school 2nd year students (n=151)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M7</td>
<td>Bozdoğan &amp; Öztürk (2008)</td>
<td>Özgün Araştırma</td>
<td>Why do the prospective teachers cheat in exams?</td>
<td>Questionnaire</td>
<td>Ahi Evran Education Faculty 4th grade students (n=194)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>T1</td>
<td>Alkan (2008)</td>
<td>Master's Thesis</td>
<td>Opinions of the secondary stage primary school and secondary education students and their teachers on cheating in exams</td>
<td>Questionnaire, Scale</td>
<td>Secondary school students (n=1292), High school students (n=120), Secondary school teachers (n=90) and High school teachers (n=1326)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M8</td>
<td>Özgüngör (2008)</td>
<td>Specific Research</td>
<td>Relationship between the perceptions of college students regarding teachers with student characteristics and cheating behaviors in exams</td>
<td>Scale</td>
<td>Faculty of Education students, Pamukkale University (n=232)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M9</td>
<td>Eraslan (2011)</td>
<td>Specific Research</td>
<td>Prospective teachers of mathematics and the issue of cheating in exams: If I say I had not cheated in the exam, it would have been a lie!</td>
<td>Semi-structured Interview Form</td>
<td>Faculty of Education students, Ondokuzmayıs University (n=48)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M10</td>
<td>Durmuşçelebi (2011)</td>
<td>Specific Research</td>
<td>Opinions of high school students and prospective teachers on cheating behaviors in exams</td>
<td>Questionnaire</td>
<td>High school students (n=736), Non-thesis postgraduate students (n=132)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M11</td>
<td>Topçu &amp; Uzundumlu (2011)</td>
<td>Specific Research</td>
<td>Attitudes and behaviors of students in higher education about motivation of cheating in exams</td>
<td>Questionnaire</td>
<td>University students (n=150)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M12</td>
<td>Küçüktepe &amp; Küçüktepe (2012)</td>
<td>Specific Research</td>
<td>Examination of the history of teachers’ tendency regarding cheating in exams in terms of various variables</td>
<td>Scale</td>
<td>History teaching students (n=97)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M13</td>
<td>Lüle Mert (2012)</td>
<td>Specific Research</td>
<td>Cheating in exams at some departments whose basic function is to train scientists</td>
<td>Written Exam Papers</td>
<td>Faculty of Science and Literature students (n=140)</td>
<td>Qualitative</td>
</tr>
<tr>
<td>M14</td>
<td>Ünlü &amp; Eroğlu (2012)</td>
<td>Specific Research</td>
<td>Attitudes of physical education teacher candidates towards cheating in exam</td>
<td>Scale</td>
<td>Physical education students (n=421)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>ID</td>
<td>Author(s)</td>
<td>Year</td>
<td>Research Type</td>
<td>Title</td>
<td>Main Focus</td>
<td>Methodology</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------</td>
<td>-------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>M15</td>
<td>Yangın &amp; Kahyaoğlu</td>
<td>2012</td>
<td>Specific Research</td>
<td>Attitudes and views of primary school prospective teachers towards cheating in exams</td>
<td>Scale Faculty of Education, Prospective teachers (n=190)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M16</td>
<td>Dam</td>
<td>2013</td>
<td>Specific Research</td>
<td>Problem of cheating in exams in formal religious education</td>
<td>Questionnaire, Scale High school students, 1st and 4th grade students, Education of Religion and Ethics Faculty 1st and 4th grade students (n=256)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M17</td>
<td>Köse &amp; Öztemur</td>
<td>2013</td>
<td>Specific Research</td>
<td>Examination of secondary school students’ attitudes towards the behavior of cheating in exams</td>
<td>Scale High school students (n=494)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M18</td>
<td>Demir &amp; Arcagök</td>
<td>2013</td>
<td>Specific Research</td>
<td>Evaluation of class prospective teachers’ opinions towards cheating in exams</td>
<td>Scale Education faculty, classroom teachers students (n=179)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>T2</td>
<td>Özdemir</td>
<td>2014</td>
<td>Master’s Thesis</td>
<td>Achievement goals of students and the underlying reasons: relationship between intrinsic motivation and cheating in exams</td>
<td>Scale, Control List English preparatory school students (n=219)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M19</td>
<td>Küçüktepe &amp; Küçüktepe</td>
<td>2014</td>
<td>Specific Research</td>
<td>Examination of university students’ cheating behaviors in exams according to student opinions</td>
<td>Semi-structured Interview Form University students (n=52)</td>
<td>Qualitative</td>
</tr>
<tr>
<td>M20</td>
<td>Özürt &amp; Eren</td>
<td>2014</td>
<td>Specific Research</td>
<td>Perspective of science prospective teachers’ attitudes towards teaching profession and cheating in exams</td>
<td>Scale Faculty of Education, Science students (n=250)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M21</td>
<td>*Yılmancı &amp; Aydin</td>
<td>2014</td>
<td>Specific Research</td>
<td>Metaphorical perceptions of prospective teachers towards cheating in exams</td>
<td>Interview Form Faculty of Education, science and classroom teacher students (n=68)</td>
<td>Qualitative</td>
</tr>
<tr>
<td>M22</td>
<td>Alemdağ &amp; Alemdağ</td>
<td>2015</td>
<td>Specific Research</td>
<td>Cheating behaviors in exams of physical education and sports college students</td>
<td>Semi-structured Interview Form School of Physical Education and Sports, 3rd grade students (n=20)</td>
<td>Qualitative</td>
</tr>
<tr>
<td>G2</td>
<td>Ay &amp; Çakmak</td>
<td>2015</td>
<td>Scale Development</td>
<td>Development of attitude scale for cheating in exams: Validity and reliability study</td>
<td>Scale Faculty of Theology, Atatürk University students (n=360)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M23</td>
<td>Özden, Baştürk &amp; Demir</td>
<td>2015</td>
<td>Specific Research</td>
<td>I am cheating in the exam, because ...: A phenomenological study</td>
<td>In-depth Interview Education Faculty students (n=7)</td>
<td>Qualitative</td>
</tr>
<tr>
<td>M24</td>
<td>Soytürk, Öztürk, Topuz &amp; Yetim</td>
<td>2015</td>
<td>Specific Research</td>
<td>Examination of the relationship between self-esteem of physical education prospective teachers and their attitudes towards cheating in exams (CBU, SPEAS example)</td>
<td>Questionnaire, Scale Physical Education and Sports School students (n=167)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M25</td>
<td>Tonga</td>
<td>2015</td>
<td>Specific Research</td>
<td>Current issues to be discussed and solved in education: chicanery, cheating in exams, showing favor and doping</td>
<td>Document Public Sector, Sports Sector, Field of Law (n=1013)</td>
<td>Qualitative</td>
</tr>
<tr>
<td>T3</td>
<td>Yıldırım</td>
<td>2015</td>
<td>Master Thesis</td>
<td>Social commitment as a predictor for academic achievement, academic postponement, cheating in exams and non-continuance of university students</td>
<td>Questionnaire, Scale University students (n=1013)</td>
<td>Quantitative</td>
</tr>
<tr>
<td>M26</td>
<td>Çeliköz</td>
<td>2016</td>
<td>Specific Research</td>
<td>Prospective teachers’ attitudes towards cheating in exams and their reasons to cheat</td>
<td>Scale Faculty of Education students (n=460)</td>
<td>Quantitative</td>
</tr>
</tbody>
</table>