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DO CULTURE AND VALUES PREDICT
STUDENTS' PERCEIVED CLASSROOM GOAL STRUCTURES?

A MASTER'S THESIS

BY

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GRADUATE SCHOOL OF EDUCATION
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May 2015

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ABSTRACT

DO CULTURE AND VALUES PREDICT STUDENTS' PERCEIVED CLASSROOM GOAL STRUCTURES?

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M.A., Program of Curriculum and Instruction

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The main purpose of this study was to investigate whether university students' cultural orientation and their values predict their perceived classroom goal structures and their life satisfaction. A cross-sectional design was used in the present study in which 177 students from social sciences and engineering and sciences departments in a foundation university in Ankara, Turkey responded to a survey. The questionnaires measured students' cultural orientations: (horizontal collectivistic, vertical collectivistic, horizontal individualistic and vertical individualistic orientations), values (intrinsic values and extrinsic values), their perceived classroom goal structures (mastery-approach goal structures, performance-approach goal structures) and their life satisfaction. A Multivariate Analysis of Variance revealed that students from engineering and sciences had a higher mean in perceived performance-approach goal structures, horizontal individualism and vertical collectivism when compared to the mean of students from social sciences. Performing two hierarchical regression analyses, it was revealed that students' intrinsic values were useful in

predicting their perceived mastery-approach classroom goal structures, whereas perceived performance-approach goal structures were revealed as a negative predictor of life satisfaction. The results were discussed in terms of their implication for educational practices. Cultivating students' intrinsic values at school and avoiding a performance focus in teaching practices could improve students' life satisfaction and well-being.

Key words: Classroom goal structures, intrinsic values, extrinsic values, collectivism, individualism.

ÖZET

KÜLTÜR VE DEĞERLER ÖĞRENCİLER TARAFINDAN ALGILANAN SINIF AMAÇ YAPILARINI BELİRLEYEBİLİR Mİ?

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Bu çalışmanın temel amacı üniversite öğrencilerinin bireysellik ya da toplumsalcılık algılarının, içsel değerler ve dışsal değerlerinin, öğrencinin sınıf amaç yapılarıyla ilgili olup olmadığını araştırmaktır. Bu çalışmada kesitsel araştırma yöntemi takip edilmiş ve anket yöntemi ile veri toplanmıştır. Çalışmaya sosyal bilimler ve mühendislik ve fen bilimleri öğrencilerinden toplam 177 üniversite öğrencisi katılmıştır. Anket, öğrencilerin kültürel algılarını (yatay toplumsalcılık, dikey toplumsalcılık, yatay bireysellik ve dikey bireysellik), değerlerini (içsel değerler ve dışsal değerler), sınıf amaç yapıları algılarını (öğrenmeye yaklaşma amaç yapısı ve performansa yaklaşma amaç yapısı) ve hayat memnuniyetini ölçmüştür. Çoklu varyans analizine (MANOVA) göre fen bilimleri öğrencileri sosyal bilimler öğrencilerine göre daha çok performans amaç yapısını, yatay bireyselliği ve dikey toplumsalcılığı algılamaktadır. Hiyerarşik regresyon analizlerine göre bir öğrenci içsel değerlere daha çok sahipse, sınıfta öğrenmeye yaklaşma amaç yapısını, bunun yanında performansa yaklaşma amaç yapısı hayat memnuniyetini negatif yönde

tahmin etmektedir. Bu çalışmanın sonuçları eğitimdeki uygulamaları yönünden tartışılmıştır. Öğrencilerin içsel değerlerini beslemek ve öğretimde performans odaklılıktan kaçınmak, öğrencilerin hayat memnuniyetini ve mutluluğunu artırabilmektedir.

Anahtar kelimeler: Sınıf amaç yapıları, içsel değerler, dışsal değerler, toplumsalcılık, bireyselcilik.

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CHAPTER 1: INTRODUCTION

Introduction

One of the most important aims of teachers is to create an effective learning environment in their classrooms. However, because our world is becoming more global, to achieve this aim it is essential for teachers to understand students' different cultural backgrounds and values in order to differentiate their practices and to help them to reach their goals. One of the concepts which teachers benefit from to create an effective learning environment in classrooms is *classroom goal structures* which refer to the achievement goals that the teacher and the group of students give importance to. The classroom goal structures are related to the achievement goals that the student will endorse. However, the question is: Are the classroom goal structures perceived equally by all the students based on some objective criteria or are they perceived differently based on students' personal culture? The purpose of the present study is to investigate whether students' different cultural orientations as well as their intrinsic and extrinsic values predict differences in the perceived classroom goal structures or not.

Background

Classroom goal structures

As social interaction taking place in classrooms, classroom goal structures are important for students' communications with each other and with teachers.

Classroom goal structures are defined as the teachers' particular values established in each classroom culture. According to Urda (2004, p. 252), classroom goal structures

are constituted by "...teachers' goal-related messages that students perceive in a classroom". For example, a teacher may give importance to grades, and then students perceive that in this class grades are important or the teacher emphasizes the importance of learning and understanding so the students perceive that they should learn the tasks. Therefore, teachers' goal-related messages are divided into two parts: (1) classroom mastery goal structures which focus on task mastery, understanding and learning the task in the classroom; (2) classroom performance goal structures which focus on demonstrating competence to other students by outperforming others in the classroom (Murayama & Elliot, 2009; Urdan, 2004). Performance goal structures have both approach and avoidance differentiations (Midgley et al., 2000). While performance approach goal structure focuses on the demonstration of competence when students are engaging in academic work, performance avoidance goal structure focuses on avoiding the demonstration of incompetence when students are engaging in academic work (Dweck, 1986; Maehr & Nicholls, 1980).

A considerable number of studies (Ames, 1992; Murayama & Elliot, 2009; Meece et al., 2006) show that the perceived classroom goal structures have a direct effect on achievement-relevant outcomes. This is because what students perceive as a goal focus in their classroom can function as a value to internalize and to behave accordingly. In this line of research, it is found that both mastery approach goals and mastery goal structures predict students' engagement, and students' positive affect positively (Kaplan & Midgley, 1999; Murayama & Elliot, 2009). Thus, when students' academic and social outcomes are considered, it seems important to take into consideration the goal structures that students perceive in a particular classroom context.

Cultural dimensions: Individualism & collectivism

Individualism and collectivism are two important dimensions of culture.

Triandis (1995) defined collectivists as people who are committed to a group such as families, relatives, friends or nations. These people are mostly concerned about the responsibilities or duties they have toward their group. The individualists are defined as people who are concerned more about their own preferences or goals than their preferences or the goals of a collective structure (Triandis, 1995). Individualistic and collectivistic people have differences in their own perceptions. For example, on one hand collectivistic individuals in a group see themselves as linked to the group and feel like equal parts of a jigsaw puzzle. On the other hand, another member of a group who has collectivistic perceptions may see that there is a hierarchy between the members of the group. Similar perceptions are valid for individualism as well. Some individualistic people protect their autonomy and see themselves equal to others in the society, while other individualistic people protect their autonomy in a hierarchical society. All of these distinctions points toward two important cultural patterns: *horizontality* and *verticality*. Horizontality corresponds to a perception of equality with others in terms of status while verticality corresponds to a perception of a hierarchy in terms of people's status. Therefore, when collectivism and individualism are crossed with horizontality and verticality, four different cultural orientations can be defined: the horizontal collectivism (commitment to a group's values and acceptance of an existing social equality), vertical collectivism (commitment to a group's values and acceptance of an existing social hierarchy), horizontal individualism (commitment to personal values and acceptance of an existing social equality) and vertical individualism (commitment to personal values

and acceptance of an existing social hierarchy) respectively (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995).

Researchers found a pervasive collectivistic perception regarding research in Turkey (Cukur, De Guzman, & Carlo, 2004; Pasa, 2000). However, even if Turkish culture is considered as collectivist, in some Turkish classrooms, students may bring different cultural orientations. This is because they may come from mixed or nuclear families with a more individualistic orientation. Also the students in Turkish classrooms can differ in their perceptions of an existing social equality or hierarchy, according to the horizontal and vertical dimensions. These differences in students' cultural orientation can lead them to have different interpretations of teachers' classroom messages and therefore to have different perceptions about classroom's goals and values.

Intrinsic & extrinsic values

Individuals' aspirations (or values) are ranged from intrinsic to extrinsic according to their dreams and wishes. While a teacher may have a goal of earning more money, a teacher may want to help his or her students to learn efficiently. These two examples are different in terms of goal's content. Kasser and Ryan (1996) categorized life goal contents into two distinct types: *intrinsic goals*, that focus on personal and health development, and the wellness of the society, and *extrinsic goals*, that focus on making money, gaining fame, and creating a socially desirable image or appearance (Kasser & Ryan, 1996).

Students' learning outcomes and their relation to their intrinsic and extrinsic values are investigated only in a few studies (Vansteenkiste, Lens, & Deci, 2006), despite the fact that, intrinsic and extrinsic goals are important factors that can make students realize their purposes and to motivate themselves to study and learn. According to Brown and Kasser (2005) "Values are broad psychological constructs with important implications for both motivated behavior and personal well-being" (Brown & Kasser, 2005, p. 350).

Problem

Individuals are different from each other and each person has a different life story. People have different backgrounds; different families, environments and experiences. *Ecological systems theory* presents a four-circle model of the relations between the individual and the environment (Bronfenbrenner, 1992). According to this theory, there are four systems around the individual: the microsystem, the mesosystem, exosystem and macrosystem. The microsystem relates to individuals' own characteristics, personalities and behaviors in the social environment; in the mesosystem, individual's family, school and neighborhood have interactions with each other; the exosystem has a larger area which includes extended family, work area, community, friends and neighborhoods and finally; the macrosystem relates to values, customs, and laws (Berk, 2007; Bronfenbrenner, 1992). There is a strong positive relationship between the individual and these systems. In fact, even if culture seems to be related to only the macrosystem including laws, values, and customs, the center of the culture is the self, and the circle broadens from its center. Therefore, even in the same country or in the same city, people may differ according to their cultural perspectives and values. People may be satisfied with their lives in

different levels. Here, the problem occurs as follows: in some classrooms, there may be students from different backgrounds and these students may have different cultural perspectives and values. Students coming from different cultures regarding their micro-, meso-, and exo-system, may have some surprises because of the differences between their social lives and classroom's relationships, curriculum, practices (Hofstede, 1986). Additionally, students may have different levels of satisfaction with their lives. All these differences among the students of a classroom may lead to different interpretations of classroom messages and in turn to different perceptions about classroom goals and values. If this is true, then it is important for teachers to determine these different perceptions of classroom goal structures and to take them into consideration in order to shape their lessons and to create a more effective learning environment for all of their students while they consider also students' well-being.

There are few studies that relate classroom goal structures with culture. However, these studies have not made use of the collectivistic or individualistic and horizontal or vertical orientation to define the cultural context. Additionally, together with the culture, intrinsic and extrinsic value concepts are new perspectives for classroom goal structures.

Purpose

The purpose of this quantitative study is to examine to what extent the collectivistic or individualistic, vertical or horizontal dimensions of students' cultural orientations, as well as their intrinsic and extrinsic values predict their perception about classroom goal structures and their life satisfaction. In addition, another purpose is to compare

social sciences students with engineering and sciences students in terms of their perceptions of classroom goal structures. Even the field of students' studies (i.e., social sciences or engineering and sciences) as a part of their exosystem could create a different cultural context and probably different interpretations of a classroom's goals and values.

Research questions

The questions of this study are given below:

- Are there any differences between students from social sciences and from engineering and sciences in their perceptions of classroom goal structures, intrinsic/extrinsic values or cultural orientations?
- Are students' perceptions of classroom goal structures predicted by their intrinsic values and their individualistic or collectivistic orientation controlling for the discipline of their studies?
- Is students' life satisfaction predicted by their intrinsic values and their individualistic or collectivistic orientation controlling for their perceptions of classroom goal structures?

Significance

Hofstede (1986), who has carried out many studies on culture and its dimensions, explains that students and teachers, who are coming from different cultures, may have some surprises because of differences between their social backgrounds, curricula, cognitive abilities and social interactions in their societies. This study may help teachers to understand students' cultural differences on classroom goal

structures and therefore could provide suggestions to teachers on how to create an effective learning environment that will fit with students' perceptions.

Considering cultural differences, this study may be helpful for international students and international teachers because of the fact that if teachers are coming from a different cultural background, they may need to understand their students and shape their lessons, activities, and teaching practices accordingly. Even in the same country and in the same city, in the same school or classrooms, cultural orientations may differ from one student to another. Therefore, this study may also help teachers in national school context to realize such differences in students' perceptions and give importance to construct suitable classroom goal structures to help students reach their goals and foster their learning.

Limitations

First, because the study is correlational, it investigates only the relations between the variables, and as it is not an experimental study, we are not able to investigate any causal effects among the studied variables. This study does not conclude whether students' cultural orientations affect the perceived classroom goal structures or conversely. Third, sampling may be another limitation. The participants are chosen from one university, one city in one country. Therefore, results of this study cannot be generalized to whole cities or countries. Finally, in this study, self-reported data are used so there is no observation to describe the phenomena and no teachers' reports to cross check the results. Therefore, the findings rely only on students' responses.

Definition of key terms

Classroom goal structures are perceived by students, the messages related with the achievement goals in the classroom (Urdu, 2004).

Collectivism focuses on individuals who see themselves as parts or aspects of a group (Singelis, Triandis, Bhawuk, & Gelfand, 1995).

Individualism focuses on individuals who see themselves as autonomous from groups (Singelis, Triandis, Bhawuk, & Gelfand, 1995).

Intrinsic values are values which focus on personal growth, relationships, and community involvement (Kasser & Ryan, 1996).

Extrinsic values focus on money, fame, image, appearance and popularity (Kasser & Ryan, 1996).

CHAPTER 2: LITERATURE REVIEW

Introduction

The present chapter provides with the theoretical background and the existing research findings related to the questions of the present study. In the first section of the chapter, *achievement goal theory* is presented with an extended focus on the classroom goal structures and related studies. This helps to understand the classroom goal structures in a deeper way. In the second section, individualism and collectivism and their horizontal and vertical dimensions are defined and discussed with relation to the classroom goal structures. Additionally, the relation between the discipline of students' studies (i.e., social sciences or engineering and sciences) and the perceived classroom goal structures is analyzed and presented. Then, in the third section, intrinsic and extrinsic values are defined and studies about their relationship with classroom goal structures are presented. Life satisfaction and a relation between life satisfaction and classroom goal structures, cultural orientations and extrinsic versus intrinsic values are also considered in the present chapter.

Classroom goal structures

Classroom environment is important for shaping students' goals. One of the major concepts, constructing a bridge between the classroom environment and students' goals, is *classroom goal structures*. Classroom goal structures can be defined as teachers' goal-related messages that are communicated to students during the classroom activities (Ames, 1992; Murayama & Elliot, 2009; Urdan, 2004). For example, if a teacher gives importance to grades, students tend to perceive that they should study to get high grades, or if a teacher gives the idea that the students should

learn by understanding and when they realize that grades are not important, students perceive that they need to study in order to learn, and not in order to get high grades. These two different examples show the two different main types of classroom goal structures: mastery and performance. On the one hand, *mastery goal structures* (MAp) mean that the classroom has an environment in which goals are related with understanding, learning and appreciating the task (Anderman & Midgley, 1997; Covington, 2000; Midgley et al., 1998; Nicholls, 1984). On the other hand, *performance goal structures* focus on the competency and success relative to other students (Murayama & Elliot, 2009). In some classrooms, teachers compare students as well as students compare themselves to other students. For example, a teacher may say to a student: *You did a better job compared to your classmates who got lower grades*. Because classroom goal structures can serve as a focus for building a particular motivational climate (Middleton, Dupuis & Tang, 2013; Midgley, Kaplan & Middleton, 2001), the teacher's statement most probably motivates the student to perform better than his/her friends so, *performance approach goal structure* (PAp) is established which is defined as a structure that promotes demonstration of competence in the classroom. Considering a contrary example, a teacher may say to a student: *I do not want you to make mistakes compared to the others*. With such a statement, the student may want to escape from the "prison" of the negative comparison to his/her classmates. The teacher's message probably demonstrates the student's incompetence. This student would tend to avoid to be seen as an unsuccessful one in the classroom by showing that s/he is not very bad compared to others. This is a *performance avoidance goal structure* (PAv) which can be also defined as the structure that promotes the avoidance of showing incompetence in the classroom (Midgley et al., 2000; Murayama & Elliot, 2009).

Classroom goal structures & educational correlates

Researchers have been studying the relationship between classroom goal structures and educational outcomes. These relationships are taken into consideration in order to support the assumptions of the present study. Moreover, by mentioning how students' achievement goals, intrinsic motivation, learning strategies and life satisfaction are related to classroom goal structures, teachers can have an insight about the suitable goal structures in their classrooms.

Classroom activities are the primary achievement situation in which students set their own achievement goals. Classroom goal structures have been seen as teachers' "goal-related messages in the classroom" (Urdu, 2004, p. 252). Therefore, a relationship is expected between classroom goal structures and students' achievement goals. Students' personal achievement goal orientations may be the result of the students' perceived classroom goal structures (Anderman & Midgley, 1997; Pintrich, 2000; Roeser, Midgley, & Urdu, 1996; Shannon, Salisbury-Glennon, & Shores, 2012; Urdu, 2004). In particular, when students perceive mastery classroom goal structures, which emphasize learning and understanding in the classroom, then students are more likely to adopt mastery goals (Murayama & Elliot, 2009; Urdu, 2004). However, when students perceive performance classroom goal structures, which emphasize demonstrating competence and comparison in the classroom, then this perception is more likely to foster students' performance goals (Meece, Anderman, & Anderman, 2006; Urdu & Midgley, 2003; Urdu, Midgley, & Anderman, 1998). In a parallel direction, some studies found a negative relationship between performance goal structures and students' mastery goals (Midgley & Urdu, 2001; Wolters, 2004). This means that when performance goal

structure is created in the classroom, there is a low-level of pursuing mastery goals and high-level of pursuing performance goals. According to Midgley (2014), even when the students are adapted the goal orientations according to the goal structure, students differ in terms of interpretations of goal messages in the classroom. For example, according to the findings of Murayama and Elliot (2009), performance approach goal structure resulted from aggregating students' responses within classroom and thus as representing the general classroom climate, is not related to students' achievement goals. This could be because the general classroom climate could be interpreted differently by each student and as a result it could differ from each student's perceived classroom goal structures and their adopted achievement goals (Midgley, 2014; Urdan, 2004; Urdan, Kneisel & Mason, 1999). Another reason for the classroom goal structures being unrelated to students' achievement goals is families' orientation. Students are coming from different family environments and shaming the family or feeling pride are factors that shape students' achievement goals (Urdan, 2004). For this reason, students' background is important to be considered in understanding students' perceived classroom goal structures.

For high quality of learning in the classroom, students' intrinsic motivations are important and students, who are intrinsically motivated, want to learn more (Deci & Ryan, 1991; Ryan & Deci, 2000a). Intrinsic motivation is called students' feelings of enjoy and interests in academic or school work (Ryan & Deci, 2000a; Skaalvik & Skaalvik, 2013). Research found that there is a strong relationship between classroom goal structures and intrinsic motivation. In particular, mastery goal structure is direct positive predictor of intrinsic motivation (Murayama & Elliot, 2009). It means that when teacher gives importance to learning and understanding in

the classroom, students feel that there is no external reward such as grade and they engage in an activity either for the value they are giving to learning from the activity or for the inherent pleasure of the activity. In the relation of classroom goal structures to intrinsic motivation, teachers' attitudes and students' interaction have been revealed as important mediators. Research found that mastery goal structure which fosters learning and understanding in the classroom in combination with the teachers' supportive attitudes increases students' intrinsic motivation (Ohtani, Okada, Ito, & Nakaya, 2013; Skaalvik & Skaalvik, 2013). Furthermore, a positive relationship between students and teachers seems to be a facilitator for students' intrinsic motivation. Contrary to mastery goal structure, teachers may create their classroom environment by giving importance to grades. Therefore, students feel that the outcome of their engagement, that is grade, is more important than learning and in consequence they attribute less value to the activity itself decreasing students' enjoyment during participation (Urduan & Schoenfelder, 2006). Therefore, performance goal structures are negatively related to intrinsic motivation (Meece, Anderman & Anderman, 2006). Meece et. al. (2006) also argue that although in some circumstances showing capacity and competence (i.e., performance-approach goals) increases the academic performance of some of the students, performance classroom goal structures decreases students' intrinsic motivation. To summarize, mastery goal structures are seen as positively related to intrinsic motivation, whereas performance goal structures could be either positively or negatively related to students' intrinsic motivation.

In the classrooms, according to changes in the goal structures, students' learning strategies may also differ. According to Ames & Archer (1988), mastery and

performance goals are related to different learning strategies. Considering an indirect relation with achievement goals, classroom goal structures are also related to learning strategies. For example, students in classrooms with a mastery goal structure were more likely to display adaptive learning strategies than in classrooms with a performance goal structure (Meece et al. 2006; Shim, Cho, & Wang, 2013). In addition, students' perceptions of mastery classroom goal structures are positively related with the use of effective learning strategies (Ames & Archer, 1988, Kaplan & Midgley, 1999; Urdan et al., 1998). According to Miki & Yamauchi (2005), perceived classroom goal structures, achievement goals and learning strategies are interrelated. Learning strategies include *surface level learning* which is learning by focusing on the general task only, and *deep level learning* which is learning by analyzing the information meaningfully (Marton & Säljö, 1984). Learning a new thing is primarily about getting the general idea or a frame then getting the detailed information or the picture in the frame. Therefore, mastery orientations which focus on learning and understanding are associated with deep learning strategies while performance classroom goal structures are associated with surface learning strategies (Ford, Smith, Weissbein, Gully, & Salas, 1998; Miki & Yamauchi, 2005).

Students' well-being is as much important as students' learning and achievement in the classroom. For students' well-being, classroom climate is important (Van Petegem, Aelterman, Van Keer, & Rosseel, 2008). Generally, psychological well-being is related with goal orientation in the school environment since well-being is constituted by positive emotions and adaptive patterns of cognition (Kaplan & Maehr, 1999). Students' achievement goal orientations together with classroom goal structures affect students' well-being (Linnenbrink, 2005). For example, achievement

goal theory examines how classroom goal contexts (mastery, performance-approach, combined mastery-performance approach) are related to students' motivation and emotional well-being. Specifically, mastery goals have a strong positive relationship with well-being while performance goals have a strong negative relation. Mastery goals foster students' learning and achievement and so, contribute to psychological well-being (Kaplan & Maehr, 1999). Therefore, considering the relationship between achievement goals and classroom goal structures, mastery goal structures may be positively related to well-being, and performance goal structures may be negatively related to well-being or may be unrelated.

Since one of the aims of the present study is to investigate the relationship between classroom goal structures and life satisfaction, the direct or indirect related findings for this relationship seems necessary to be mentioned. According to the previous research findings, mastery goals and mastery classroom goal structures are positively related to intrinsic motivation which is defined as feeling enjoyment and interest while doing a task. Intrinsic motivation has been positively related to well-being (Ryan & Deci, 2000b). In the classrooms, if mastery goal structure is constructed by teachers, students are more likely to pursue mastery goals, they will be intrinsically motivated and therefore they will be satisfied with their lives since life satisfaction is positively correlated to well-being.

The findings of the research examined the relation of classroom goal structures to educational correlates (i.e., achievement goals, intrinsic motivation, learning strategies and well-being). These findings have helped to practitioners to construct a new educational perspective regarding the optimal classroom goal structures. These

findings also show the necessity for teachers to pay more attention to the goals they suggest to their students in order to promote their optimal functioning.

Cultural dimensions: Individualism &collectivism

Despite interpersonal differences, there is a tendency to classify the individuals according to some basic features in order to understand the complex nature of human beings and their cultural groups. Culture is a broad concept to be defined, so in order to describe each culture in a more concrete way; researchers have defined specific dimensions of culture such as individualism or collectivism (Triandis, 1995). These dimensions do not define the whole concept of culture but it is a starting point to understand ourselves and others and through them it is easier to define individuals' cultural orientations and the culture of specific groups. On the one hand, *collectivistic people* mostly see themselves as a part of a group and they experience feelings of belonging to the group they participate. They stick to the responsibilities and duties of the group (e.g. family or nation). On the other hand, *individualistic people* are independent from groups and mostly focus on their preferences, ideals, and own rather than group's perceptions (Triandis, 1995). Researchers have gradually seen that this differentiation is not enough to define cultural orientations because still there are some other important aspects that differentiate people from culture to culture. For example, in collectivistic groups, some people perceive equality among the members of their group: they feel like all individuals are equal and they have equal responsibilities, conditions of life and status. However, some collectivistic people perceive a hierarchy in their group. These people see that there are some differences between the individuals in terms of their economic or social status. Same examples can be also considered for the individualistic people.

Individualists, see the group members equal or in a hierarchical order. These differences in the same cultural dimensions are called *horizontality* and *verticality*. Horizontality refers to a perception of equality with others and verticality refers to a perception of a hierarchy in terms of individuals' status. Crossing the concepts puts forward four different cultural orientations: *horizontal individualism* which refers to commitment to personal preferences and values and acceptance of an existing socially equal status, *vertical individualism* which refers to commitment to personal preferences and values and acceptance of an existing socially hierarchical status, *horizontal collectivism* which refers to commitment to group's values and rules and acceptance of socially equal status and finally *vertical collectivism* which refers to commitment to group's values and rules and acceptance of an existing socially hierarchical status (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995; Triandis, 2001).

Students and teachers coming from different cultures and different disciplines face a challenge to communicate because of different types of behaviors, strategies or skills they have. Even in the same culture, there are different people with respect to the cultural orientations. Therefore, it is necessary to consider the cultural context in which teaching and learning takes place to understand the differences of this regard (Al-Issa, 2005). Recently, researchers in achievement goal theory have been interested in taking into consideration the achiever's different cultural backgrounds when they investigate the achievement goals they endorse (Kaplan, Middleton, Urdan & Midgley, 2002). Several studies have mentioned that there is a relationship between goals and cultures. According to Maehr and Nicholls (1980), for collectivists and individualists, goals may be performed differently. Similarly,

Yamauchi (1998) explains that values of different cultures lead to the endorsement of different kinds of goals.

Individualistic and collectivistic perceptions have been also studied in educational context to investigate which cultural orientation is related to different achievement goals in the classrooms (Middleton, Dupuis & Tang, 2013; Urdan, 1997, 2004).

Individualistic students are believed to feel personal pride more, while collectivist students are believed to have fear of shame (Markus & Kitayama, 1991). Therefore, it is expected that individualistic students have more performance approach goals while collectivistic students have more performance-avoidance goals (Urdan, 1997). In addition, a classroom environment may emphasize more individualistic or collectivistic orientations depending on its reward system and as a result students may tend to have more group or individual oriented goals in different classroom environments (Yamauchi, 1998). Conversely, students' cultural background of their family may influence their interpretation of the classroom reward system and probably collectivist students perceive group oriented goals whereas individualist students may perceive individual oriented goals in their classroom (Yamauchi, 1998).

Taking into account different disciplines, the present study aims to examine the relationship between perceived classroom goal structure and two different discipline's culture: social sciences culture, and engineering/sciences culture. As each discipline has its own values and culture, the field of study itself creates for the students, a particular cultural context which is important to be taken into consideration. Classroom goal structures may be perceived differently by students

related to the cultural background of their discipline. Considering universities, faculties and departments, each discipline is different from each other in terms of their cultural backgrounds. For example, a study about comparing field of studies in terms of students' values showed that students in business department give importance to achievement values, students in social sciences give importance to universalism, benevolence and spirituality; and students in technology departments give importance to security (Myyry & Helkama, 2001). This shows that different disciplines have their own values for students to endorse. In addition, students, who have different field of studies, see themselves to be studying in markedly different places and different environments are related to different cultures (Goldenweiser, 1916; Ramsden, 1979). Social definition of the intelligence emphasizes on the strong relationship of intelligence with families and societies (e.g. different environments, different departments, faculties or disciplines) (Gardner, 1993, 2011). Therefore, students from social sciences, engineering and sciences, which can be seen as cultural contexts, having constructing their intelligent differently, may also perceive also their classroom goal structures differently.

Intrinsic & extrinsic values

People have different values regarding their experience. Some people may give importance to money or fame whereas others may give importance to helping others and improving themselves. These values are categorized in two types. Financial success, image and status are categorized as *extrinsic values* (ExtV) because they are coming from the out of the self: people hear, read or watch and get some values they endorse. However, *intrinsic values* (IntV) are coming from one's inside. Personal development, wellness of the society and helping people are some of the intrinsic

values (Kasser, 2011; Kasser & Ryan, 1996). Some studies (Kasser, 2002; Sheldon, Ryan, Deci, & Kasser, 2004) show that intrinsic and extrinsic values have significant effects on people's life satisfaction. Our world is becoming more global as people are surrounded and affected by the media including newspapers, television and internet. Advertisements in media provide specific values and some people may think that being famous, rich and buying things, having attractive appearance as the media propounds, bring them happiness. However, mostly, it is not the case. People, who give importance of wealth and materialistic life style, show lower levels of psychological well-being than people who have more intrinsic values (Brdar, Rijavec & Miljković, 2009; Kasser, 2002). In Kasser & Ahuva's (2002) study, the relationship between well-being and extrinsic values were investigated for business students in Singapore and it is found that even the cultural environment of the business students fosters their materialistic values; students' well-being does not increase when their materialistic values increase. It means, interestingly, that even when some people have strong materialistic or extrinsic values; they are still not satisfied with their lives. This is because only intrinsic values satisfy basic psychological needs and they are consistent with human nature. However, extrinsic values are not consistent with human nature and they are shaped externally by culture (Deci & Ryan, 1985; Kasser & Ryan, 2001).

Intrinsic and extrinsic values have a significant importance in educational context. Students who pursue extrinsic values see their education as a stressful thing. However, students who pursue intrinsic values see their education as a way of learning and engaging in personal growth, career preparation, changing the world to a better place (Henderson-King & Mitchell, 2011). Students with extrinsic values

focus on wealth, fame and image, so students probably give less importance to learning and enjoying the task while students with intrinsic values, give importance to learning, enjoying the task and studying for their future goals because they focus on personal growth and community contributions. Therefore, these two types of values are related to their academic motivation (Vansteenkiste, Lens & Deci, 2006). Students are intrinsically motivated if they feel the enjoyment of learning or extrinsically motivated if they are seeking for rewards such as grades (Deci, 1975; Eccles & Wigfield, 2002). Therefore, intrinsic values may be associated with mastery goals and extrinsic values may be associated with performance goals. Particularly, considering intrinsic values students try to understand and learn more about the task, which correspond to mastery goals, for their personal growth or for the community's growth. However, considering extrinsic values, to be popular or famous or accepted, students may not want to be seen as unsuccessful in the classroom which corresponds to performance avoidance goals or students may prefer to get high grades as a part of extrinsic value which corresponds to performance approach goals. Moreover, intrinsic values may be positively related with students' perceived mastery goal structures and extrinsic values may be positively related with students' perceived performance goal structures. The present study aims to examine whether such a relationship exists or not.

CHAPTER 3: METHOD

Introduction

The present study aims to investigate to what extent the collectivistic or individualistic students' cultural orientations as well as their intrinsic and extrinsic values predict their perception about classroom goal structures and life satisfaction. There are 3 research questions which are given as follows:

- Are there any differences between students from social sciences and from engineering and sciences in their perceptions of classroom goal structures, intrinsic/extrinsic values or cultural orientations?
- Are students' perceptions of classroom goal structures predicted by their intrinsic values and their individualistic or collectivistic orientation controlling for the discipline of their studies?
- Is students' life satisfaction predicted by their intrinsic values and their individualistic or collectivistic orientation controlling for their perceptions of classroom goal structures?

Research design

Quantitative study was the method applied throughout this research. The design was cross sectional that aims to examine whether students' cultural orientations and their values predict their perceptions of classroom goal structures and life satisfaction.

According to Busk (2005), cross-sectional research means collecting data at the same time from the participants. This design was chosen because in cross sectional studies, data were collected once with the minimum cost, whereas the researchers can study multiple relations among the studied variables (Mann, 2003).

Context

The study was conducted in a private and foundation university in Ankara. The students are chosen from social sciences (psychology, management, law, international relations, economy) and from engineering and sciences (industrial engineering, electrical and electronic engineering, computer engineering, physics, molecular biology and genetics) departments of this university.

Participants

Participants were 171 private university students. The students' ages were between 18 and 25 with a mean of 19.79 (SD = 1.7). The students' genders were also reported. There were 61 male students and 92 female students while 18 students did not provide their gender information. The participants also reported their nationalities. 81 students reported their nationalities out of 171 participants and 78 students were Turkish and 3 students were from other nationalities. In addition, there were 168 students who reported their departments. According to the students' responses, there were 86 students from social sciences: 28 from psychology (PSYC), 3 from political science (POLS), 10 from management (MAN), 35 law (LAW), 8 international relations (IR), 2 from economics (ECON); and 65 students from engineering: 4 from industrial engineering (IE), 22 from electrical and electronics engineering (EE), 39 from computer engineering (CS) & 17 from sciences: 2 from physics (PHYS), 15 from molecular biology and genetics (MBG). The sampling was convenient sampling because the students were selected according to their accessibility.

Instrumentation

The list of the variables in this study was given below:

- Intrinsic values (IntV)
- Extrinsic values (ExtV)
- Horizontal collectivism (HC)
- Vertical collectivism (VC)
- Horizontal individualism (HI)
- Vertical individualism (VI)
- Mastery approach goal structures (MAp)
- Performance approach goal structures (PAp)
- Performance avoidance goal structures (PAv)
- Life satisfaction (Lfsat)
- Disciplines (Dscpl)
- Gender

The questions in the survey measured these variables. Each item was assessed in a five-point, Likert-type scale, ranging from 1 to 5 where 1 represented a strong disagreement and 5 represented strong agreement. The average scores were computed. The questionnaires were translated from English to Turkish and the translation was checked by both English native speaker (speaking Turkish) and Turkish native speaker (speaking English).

Intrinsic and extrinsic values. Students' intrinsic and extrinsic values were assessed by the 18-item *aspiration index* (Duriez, Vansteenkiste, Soenens, & De Witte, 2007; Kasser & Ryan, 1996; Vansteenkiste, Duriez, Simons, & Soenens, 2006). Eighteen statements followed the question "How important is this goal in your life?" Each

statement was assessed in a five-point Likert-type scale, ranging from 1 (very unimportant) to 5 (very important). Nine statements represented intrinsic values (e.g. ...to develop my personality). The internal consistency for intrinsic values subscale represented by the Cronbach alpha was $\alpha = .83$. Nine statements measured extrinsic values (e.g. ...to look attractive and beautiful). The internal consistency for extrinsic values subscale represented by the Cronbach alpha was $\alpha = .88$.

Cultural orientation. The scenario questionnaire of cultural orientations (SQCO; Chirkov, Lynch and Niwa, 2005) was used to assess participants' cultural orientations. The original questionnaire contains 12 scenarios but, six of them were selected for the present study. Each scenario was followed by 4 items representing the four subscales. The subscales are given as follows.

Horizontal collectivism. Six items (one for each scenario) assessed horizontal collectivism (HC). There was a scenario such as "The best society is one where...." and one possible answer for the scenario is "People have more or less equal incomes and equal opportunities." The internal consistency of the subscale represented by Cronbach alpha was $\alpha = .43$.

Vertical collectivism. Six items (one for each scenario) assessed vertical collectivism (VC) orientation. There was a scenario such as "The best society is one where...." and one possible answer for the scenario was "People are ready to sacrifice their interests for the sake of their society." The internal consistency of the subscale represented by Cronbach alpha for VC was $\alpha = .72$.

Horizontal individualism. Six items (one for each scenario) assessed horizontal individualism (HI) orientation. There was a scenario such as “The best society is one where...” and one possible answer for the scenario was “People can live their lives independently, and do the things which they enjoy.” Internal consistency of the subscale represented by Cronbach alpha for HI was $\alpha = .60$.

Vertical individualism. Six items assessed vertical individualism (VI) orientations. There was a scenario such as “The best society is one where...” and one possible answer for the scenario is “People get more money and recognition if they contribute more to the society.” Internal consistency of the subscale represented by Cronbach alpha for VI was $\alpha = .71$.

Classroom goal structure. Classroom goal structures were assessed by 13 items from the Patterns of Adaptive Learning Scale (PALS; Midgley et al., 2000) and from Urdan’s (2004) scale. The participants had to report their perceived classroom goal structures for the specific class during the survey. From the total of 13 items, 4 items assessed *performance-approach goal structures* (e.g., in our class, getting good grades is the main goal). Internal consistency of the subscales represented by Cronbach alpha was $\alpha = .85$.

Another set of 6 items out of 13 assessed *mastery-approach goal structures* (e.g., in our class, it’s important to understand the work, not just memorize it). Internal consistency of the subscales represented by Cronbach alpha for the mastery-approach goal structures was $\alpha = .87$.

Finally, 3 items assessed *performance-avoidance goal structures* (e.g., in our class, it's important not to do worse than other students). The performance-avoidance subscale had a low reliability ($\alpha = .56$) and for this reason, it was not included in the present study. All the items of the scale were assessed by a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Life satisfaction. The Satisfaction with Life scale (Diener, Emmons, Larsen, & Griffin, 1985) was used to assess the students' pleasure about their life. Students responded five items by using a five-point Likert-type Scale ranging from 1 (strongly disagree), to 5 (strongly agree). The internal consistency of the scale was $\alpha = .80$.

Background variables. At the beginning of the survey, students were asked to report their gender (female = 1, male = 2) and department of study which were dummy variables. The departments were categorized into social sciences (coded as 1) and engineering & sciences (coded as 2) departments according to the classification made in the Turkish education system in high school years and the national university exam categories.

Data collation/procedures

Data were collected by survey method. Ethical approval was given by Ethical Committee at the foundation university. Then, the instructors of the departments were contacted and permission was obtained from them to enter their class and give the survey during a class session. In classes, students primarily read and signed consent forms, and then they responded the questions anonymously.

Data analysis

The analysis of the data was performed by Statistical Package for the Social Sciences (SPSS) 16.0. In preliminary analysis, means and standard deviations were calculated and bivariate correlations among the variables were examined. In main analysis, one-way MANOVA was used separately to check for two types of differences. One of them was gender differences in the studied variables and the other one was the differences between students from social sciences and students from engineering and sciences regarding the studied variables. The assumptions for MANOVA were also checked. Data were explored for normality, linearity (multicollinearity threat) and homogeneity of variances and checked by P-P plots, histograms, skewness & kurtosis (Tabachnick & Fidell, 2013). The detailed information was given in Appendix B and Appendix C. There were some missing values in the data. They were handled with *pairwise* deletion in descriptive statistics and *listwise* deletion in main analysis (missing values: 3 for culture, 20 for classroom goal structures, 7 for life satisfaction, 38 for gender, and 26 for disciplines).

In main analysis, a hierarchical regression analysis was also performed. The analysis was done for two different dependent variables. One of them was classroom goal structures and the other one was life satisfaction. The independent variables for classroom goal structures were disciplines, intrinsic values, extrinsic values, horizontal collectivism, vertical collectivism, horizontal individualism and vertical individualism. The independent variables for life satisfaction were mastery approach goal structures, performance approach goal structures, intrinsic values, extrinsic values, horizontal collectivism, vertical collectivism, horizontal individualism and vertical individualism. The analyses were done separately. The hierarchical

regression analysis was three-stage. The following models were presented with the regression equations where A is constant and B is the unstandardized regression coefficient.

The *Equations 1, 2, 3* represent the *Model 1, 2, 3* respectively.

$$PAp = A + B_1 * Dscpl \quad (1)$$

$$PAp = A + B_1 * Dscpl + B_2 * IntV + B_3 * ExtV \quad (2)$$

$$PAp = A + B_1 * Dscpl + B_2 * IntV + B_3 * ExtV + B_4 * VC + B_5 * HC + B_6 * VI + B_7 * HI \quad (3)$$

The *Equations 4, 5, 6* represent the *Model 1, 2, 3* for MAp goal structures respectively.

$$MAp = A + B_1 * Dscpl \quad (4)$$

$$MAp = A + B_1 * Dscpl + B_2 * IntV + B_3 * ExtV \quad (5)$$

$$MAp = A + B_1 * Dscpl + B_2 * IntV + B_3 * ExtV + B_4 * VC + B_5 * HC + B_6 * VI + B_7 * HI \quad (6)$$

The *Equations 7, 8, 9* represent the *Model 1, 2, 3* for life satisfaction respectively.

$$Lfsat = A + B_1 * PAp + B_2 * MAp \quad (7)$$

$$Lfsat = A + B_1 * PAp + B_2 * MAp + B_3 * IntV + B_4 * ExtV \quad (8)$$

$$Lfsat = A + B_1 * PAp + B_2 * MAp + B_3 * IntV + B_4 * ExtV + B_5 * VC + B_6 * HC + B_7 * VI + B_8 * HI \quad (9)$$

When the unstandardized coefficient B , is transformed into standardized β , then it is important to check also the structure coefficient r_s ($r_s = \frac{r_{xy}}{R}$) and compare β and r_s . The detailed information is given in Appendix D.

CHAPTER 4: RESULTS

Introduction

This chapter provides the results of the present study which examines the relationship between perceived classroom goal structures and students' discipline of studies, cultural orientations and values. In this chapter, first, descriptive statistics and bivariate correlations of the measured variables were presented in the preliminary analysis. In addition to this, MANOVA (Multivariate Analysis of Variance) was used to determine the differences of gender and discipline of studies among the variables.

In the main analysis, two hierarchical regressions were performed. In the first one classroom goal structures were regressed with discipline of studies (social sciences and sciences), values (intrinsic and extrinsic) and cultural orientations (vertical collectivism, horizontal collectivism, vertical individualism, horizontal individualism) whereas in the second one life satisfaction was regressed again with classroom goal structures, values and cultural orientation.

Preliminary analysis

The preliminary analysis included two main parts: descriptive statistics and bivariate correlations. Means and standard deviations of the variables were presented in Table 1, numbers of the participants are different in the table because some participants did not respond some parts of the survey (missing values: 3 for culture, 20 for classroom goal structures, 7 for life satisfaction, 38 for gender, and 26 for disciplines).

Table 1. Descriptive statistics for studied variables

	<i>N</i>	<i>M</i>	<i>SD</i>
<u>Values</u>			
1.IntV	171	4.44	.51
2.ExtV	171	3.31	.82
<u>Culture</u>			
3.VC	169	3.02	.62
4.HC	169	3.56	.53
5.HI	169	4.16	.60
6.VI	169	3.09	.76
<u>Classroom goal structures</u>			
7. PAp	151	3.09	.99
8. MAp	151	3.95	.80
<u>Outcome</u>			
9.Lfsat	164	3.30	.80

Note. *N* = Number of participants for corresponding variable; *M* = Mean; *SD* = Standard Deviation.

The bivariate correlations of the variables were presented in Table 2, and they were described in terms of correlation coefficients. First, Table 2 shows that intrinsic and extrinsic values were positively correlated ($r = .35, p < .05$) as well as the correlations of intrinsic values between vertical collectivism ($r = .27, p < .05$) and between horizontal collectivism ($r = .20, p < .05$) were statistically significant. Also, intrinsic values and MAp goal structures were positively correlated ($r = .26, p < .05$) as well as intrinsic values and life satisfaction were positively correlated ($r = .23, p < .05$). However, extrinsic values were only positively correlated with vertical

individualism ($r = .31, p < .05$). Regarding cultural orientations, vertical collectivism was positively correlated with horizontal collectivism ($r = .44, p < .05$) and with vertical individualism ($r = .49, p < .05$). In addition, vertical collectivism was positively correlated with PAp ($r = .25, p < .05$) and MAp ($r = .31, p < .05$) goal structures. However, horizontal collectivism had a positive correlation with vertical individualism ($r = .26, p < .05$) and horizontal individualism ($r = .21, p < .05$) and MAp ($r = .24, p < .05$) goal structures. However, there was no statistically significant correlation between horizontal individualism and verticality (individualism and collectivism). Finally, MAp and PAp goal structures were positively correlated ($r = .36, p < .05$).

Table 2. Bivariate correlations for studied variables

	1	2	3	4	5	6	7	8	9
1.IntV	-								
2.ExtV	.35*	-							
3.VC	.27*	.19*	-						
4.HC	.20*	.18*	.44*	-					
5.VI	.09	.31*	.49*	.26*	-				
6.HI	.13	.18*	-.06	.21*	-.07	-			
7.PAp	-.06	-.02	.25*	.19*	.22*	-.07	-		
8.MAp	.26*	.10	.31*	.24*	.30*	.11	.36*	-	
9.Lfsat	.23*	.02	.08	-.05	.03	.05	-.14	.14	-

Note. * $p < .05$. IntV = Intrinsic values; ExtV = Extrinsic values; VC = Vertical collectivism; HC = Horizontal collectivism; VI = Vertical individualism; HI = Horizontal individualism; PAp=Performance approach classroom goal structure; MAp= Mastery approach classroom goal structure; Lfsat = Life satisfaction.

Main analysis

A MANOVA test showed statistically significant differences between social sciences and engineering and sciences (Wilk's $\Lambda = .773$, $F [9, 135] = 4.39$, $p < .05$, multivariate $\eta^2 = .23$). A follow-up ANOVA with a Bonferroni alpha level adjustment, showed statistically significant departmental differences in performance-approach goal structure $F (1, 145) = 18.17$, $p < .05$, $\eta^2 = .11$, horizontal individualism $F(1, 145) = 5.01$, $p < .05$, $\eta^2 = .03$, and statistically significant departmental differences in vertical collectivism $F(1, 145) = 3.41$, $p > .05$, $\eta^2 = .02$. Engineering and sciences, as compared to social sciences, scored higher in performance-approach goal structure ($M = 3.44$, $SD = 1.03$ vs. $M = 2.78$, $SD = .85$), horizontal individualism ($M = 4.29$, $SD = .52$ vs. $M = 4.07$, $SD = .63$) and vertical collectivism ($M = 3.14$, $SD = .62$ vs. $M = 2.96$, $SD = .60$).

A MANOVA analysis was also used to determine whether gender differences existed among the studied variables. However, the analysis showed no gender differences and for this reason gender was not included as a factor in the subsequent regression analysis.

Hierarchical regression (PAp - MAp goal structures)

Three-stage model was used in hierarchical regression analysis: are students' perceptions of classroom goal structures predicted by their intrinsic values and their individualistic or collectivistic orientation when the discipline of the studies is controlled? PAp goal structures and MAp goal structures were regressed on social sciences or engineering and sciences (*disciplines*) in Step 1, intrinsic values and extrinsic values in Step 2, horizontal individualism, horizontal collectivism, vertical

individualism and vertical collectivism in Step 3. The results of the final regression models for performance approach goal structures are presented in Table 3 & 4 (*Step 1*), Table 5 & 6 (*Step 2*) and Table 7 & 8 (*Step 3*) and for mastery approach goal structures are presented in Table 9 & 10 (*Step 1*), Table 11 & 12 (*Step 2*) and Table 13 & 14 (*Step 3*).

Hierarchical regression analysis for PAp

Table 3. Model summary for disciplines, predicting perceived PAp goal structures

	R^2	Adjusted R^2	F	p_F	ΔR^2
<u>Step 1</u>	.12	.11	19.31	< .05	.12

* $p < .05$

In Table 3, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$ the model explained only 11% of the variance in perceived performance approach classroom goal structures which could be explained by the students' disciplines of study.

Table 4. Unstandardized and standardized regression coefficients controlling for disciplines

<u>Predictors</u>	B	SEB	B	p -values
Dscpl	.68	.16	.34*	< .05
Constant	2.08	.24		

* $p < .05$

In Table 4, β weight (= .34*) showed that *disciplines* was a statistically significant positive predictor of PAp goal structures when the other variables were not included. The following equation shows the interpretation for the unstandardized coefficients of disciplines predicting PAp goal structures.

$$PAp = 2.08 + 0.68 * Dscpl$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{PAp} = 0.34 * Z_{Dscpl}$$

Table 5. Model summary for disciplines and values predicting perceived PAp goal structures

	R^2	Adjusted R^2	F	p_F	ΔR^2	F change	$p_{F-Change}$
<u>Step 2</u>	.12	.10	6.53	< .05	.00	.24	.79

* $p < .05$

In Table 5, given that $R^2 \neq 0$, and $R^2_{adjusted} \neq 0$, this indicated that the model explains only 10% of the variability in perceived performance approach classroom goal structures. R square change showed that ($\Delta R^2 = 0$) there was no significant change when intrinsic and extrinsic values were added in Step 2. These added variables were useless in this step (Thompson, 2008). The only noteworthy predictor of classroom goal structures was *disciplines*.

Table 6. Unstandardized and standardized regression coefficients for values controlling for disciplines.

<u>Predictors</u>	B	SEB	B	p -values
Dscpl	.68	.16	0.34*	< .05
IntV	-.11	.17	-.05	.52
ExtV	.05	.11	.04	.66
Constant	2.4	.80		< .05

* $p < .05$

In Table 6, when controlling disciplines, intrinsic values and extrinsic values were added to hierarchical linear regression for predicting PAp scores. The following equation shows the interpretation for relationship between unstandardized regression coefficients B and the variables in the model.

$$PAp = 2.4 + 0.68 * Dscpl - 0.11 * IntV + 0.05 * ExtV$$

The following equation is the interpretation of standardized regression coefficients with discipline, intrinsic values and extrinsic values.

$$Z_{PAp} = 0.34 * Z_{Dscpl} - 0.05 * Z_{IntV} + 0.04 * Z_{ExtV}$$

This indicated that if students could increase their intrinsic values by one standard deviation, their PAp goal structures would decrease 0.05 standard deviations. Also, if students could increase their extrinsic values one standard deviation, their PAp goal structures would increase 0.04 standard deviations. *Disciplines* is still the most important variable (β weight = .34*). Intrinsic and extrinsic values did not really help the model for predicting PAp scores.

Table 7. Model summary for disciplines, values and culture predicting PAp goal structures

	R^2	Adjusted R^2	F	p_F	ΔR^2	F change	p_F Change
<u>Step 3</u>	.21	.17	5.17	< .05	.09	3.77	.01

* $p < .05$

In Table 7, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$ this indicates that the model explains 17% of the variability in perceived performance approach classroom goal structures. R^2 change showed that ($\Delta R^2 = .09$), when all the variables are added in Model 3, it did not significantly improve on the prediction by *discipline, intrinsic values* and *extrinsic values*, explaining almost 9% additional variance.

Table 8. Unstandardized and standardized regression coefficients for values and culture controlling for disciplines

Predictors	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>p-values</i>
Dscpl	.63	.16	.32*	< .05
IntV	-.21	.17	-.11	.21
ExtV	-.02	.11	-.02	.83
VC	.19	.16	.12	.23
HC	.28	.16	.15	.08
VI	.13	.12	.10	.28
HI	-.22	.14	-.13	.12
Constant	2.10	.94		.03

* $p < .05$

In Table 8, when controlling disciplines; intrinsic values, extrinsic values, vertical collectivism, horizontal collectivism, vertical individualism and horizontal individualism were added to the Model 3. The following equation shows the unstandardized coefficients with the variables in this Model 3.

$$PAp = 2.10 + 0.63 * Dscpl - 0.21 * IntV - 0.02 * ExtV + 0.19 * VC + 0.28 * HC + 0.13 * VI - 0.22 * HI$$

The equation with standardized coefficients for the Model 3 is given as follows:

$$Z_{PAp} = 0.32 * Z_{Dscpl} - 0.11 * Z_{IntV} - 0.02 * Z_{ExtV} + 0.12 * Z_{VC} + 0.15 * Z_{HC} + 0.10 * Z_{VI} - 0.13 * Z_{HI}$$

Even when the other variables were added in the analysis, still *disciplines* is the most important and only statistically significant predictor variable for PAp scores ($\beta = .32^*$).

Hierarchical regression analysis for MAp

Table 9. Model summary for disciplines, predicting perceived MAp goal structures

	R^2	Adjusted R^2	F	p_F	ΔR^2
<u>Step 1</u>	.01	-.00	.83	.37	.01

* $p < .05$

In Table 9, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$; this indicated that the model does not explain variability in perceived mastery approach classroom goal structures.

R^2 change ($\Delta R^2 = 0$) was the same as R^2 ($R^2 = .01$) in the first step.

Table 10. Unstandardized and standardized regression coefficients for disciplines

<u>Predictors</u>	B	SEB	β	p -values
Dscpl	.12	.13	.08	.37
Constant	3.78	.21		< .05

* $p < .05$

In Table 10, standardized coefficient β weight ($= .08$) showed that disciplines in the first step was not a statistically significant predictor of mastery approach classroom goal structures ($p = .37 > .05$) when the other variables were not included. The following equation shows the interpretation for the unstandardized coefficients of disciplines predicting MAp goal structures.

$$MAp = 3.78 + 0.12 * Dscpl$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{MAp} = 0.08 * Z_{Dscpl}$$

Table 11. Model summary for disciplines, values predicting perceived MAp goal structures

	R^2	Adjusted R^2	F	p_F	ΔR^2	F change	p_F Change
<u>Step 2</u>	.06	.04	3.12	< .05	.06	4.25	< .05

* $p < .05$

In Table 7, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$, this indicated that the model explains only 4% of the variability in perceived mastery approach classroom goal structures.

R^2 change showed that ($\Delta R^2 = .06$), addition of the variables: intrinsic values and extrinsic values, did not significantly improve on the prediction by *discipline*.

Table 12. Unstandardized and standardized regression coefficients for values controlling for disciplines

<u>Predictors</u>	B	SEB	B	p -values
Dscpl	.16	.13	.10	.22
IntV	.37	.14	.23*	< .05
ExtV	.04	.09	.04	.68
Constant	1.96	.66		<.05

* $p < .05$

In Table 12, standardized coefficient β weight (= .23) for intrinsic values showed that it was a statistically significant positive predictor of MAp ($p < .05$). Extrinsic values were not a statistically significant predictor of MAp goal structures. The following equation shows the interpretation for the unstandardized coefficients of the variables predicting MAp goal structures.

$$MAp = 1.96 + 0.16 * Dscpl + 0.37 * IntV + 0.04 * ExtV$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{MAp} = 0.1 * Z_{Dscpl} + 0.23 * Z_{IntV} + 0.04 * Z_{ExtV}$$

Table 13. Model summary for disciplines, values and culture predicting perceived mastery approach classroom goal structures

	R^2	Adjusted R^2	F	p_F	ΔR^2	F change	p_{F Change
<u>Step 3</u>	.18	.14	4.30	< .05	.12	4.93	< .05

* $p < .05$

In Table 13, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$, this indicated that the model explains only 14% of the variability in perceived mastery approach classroom goal structures. R^2 change showed that ($\Delta R^2 = .12$) addition of the variables: intrinsic values and extrinsic values, collectivism and individualism did not significantly improve on the prediction by *discipline* even the R^2 change value was higher than the previous ones.

Table 14. Unstandardized and standard regression coefficients for values and culture of controlling for disciplines

<u>Predictors</u>	B	SEB	B	p -values
Dscpl	.01	.13	.01	.96
IntV	.28	.14	.17*	< .05
ExtV	-.10	.09	-.09	.29
VC	.17	.13	.13	.19
HC	.11	.13	.08	.40
VI	.27	.10	.25*	< .05
HI	.17	.11	.13	.13
Constant	.55	.76		.48

* $p < .05$

In Table 14, standardized coefficient β weight (= .17) for intrinsic values showed that intrinsic value was a statistically significant positive predictor of life satisfaction ($p < .05$) and β weight (= .25) for VI showed that it was a positive statistically significant predictor of MAp ($p < .05$) when the all variables were included. The following

equation shows the interpretation for the unstandardized coefficients of all the variables predicting MAp.

$$MAp = 0.55 + 0.01 * Dscpl + 0.28 * IntV - 0.10 * ExtV + 0.17 * VC + 0.11 * HC + 0.27 * VI + 0.17 * HI$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{MAp} = 0.01 * Z_{Dscpl} + 0.17 * Z_{IntV} - 0.09 * Z_{ExtV} + 0.13 * Z_{VC} + 0.08 * Z_{HC} + 0.25 * Z_{VI} + 0.13 * Z_{HI}$$

As can be noticed, only the discipline of studies predicted positively the PAp goal structures indicating that students from sciences were perceiving as more performance-approach oriented the goal structures of their classrooms. Regarding mastery-approach goal structures, results showed that they were predicted by intrinsic values and vertical individualism.

Hierarchical regression (Life satisfaction)

Two hierarchical regression models were set up where life satisfaction was regressed on performance-approach goal structures and mastery-approach goal structures in Step 1, intrinsic and extrinsic values in Step 2, horizontal individualism, horizontal collectivism, vertical individualism and vertical collectivism in Step 3. The results of the final regression models were presented in Tables 15, 16, 17, 18, 19, and 20.

Table 15. Model summary for classroom goal structures predicting life satisfaction

	R^2	Adjusted R^2	F	p_F	ΔR^2
<u>Step 1</u>	.06	.05	4.49	< .05	.06

* $p < .05$

In Table 15, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$, this indicated that the model explains only 5% of the variability in life satisfaction.

Table 16. Unstandardized and standardized regression coefficients for classroom goal structures

<u>Predictors</u>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>p-values</i>
PAP	-.18	.07	-.21*	<.05
MAP	.21	.09	.21*	<.05
Constant	3.01	.34		< .05

* $p < .05$

In Table 16, standardized coefficient β weight (= -.21) for PAP showed that PAP was a statistically significant negative predictor of life satisfaction ($p < .05$) and β weight (= .21) for MAP showed that it was a positive statistically significant predictor of life satisfaction ($p < .05$) when the other variables were not included. The following equation showed the interpretation for the unstandardized coefficients of classroom goal structures predicting life satisfaction.

$$Lfsat = 3.01 - 0.18 * PAP + 0.21 * MAP$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{Lfsat} = -0.21 * Z_{PAP} + 0.21 * Z_{MAP}$$

Table 17. Model summary for classroom goal structures and values predicting life satisfaction

	R^2	<i>Adjusted R²</i>	<i>F</i>	p_F	ΔR^2	<i>F change</i>	$p_{F \text{ Change}}$
<u>Step 2</u>	.09	.06	3.34	< .05	.03	2.13	.12

* $p < .05$

In Table 17, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$, this indicated that the model explains only 6% of the variability in perceived performance approach classroom goal

structures. R^2 change showed that ($\Delta R^2 = .03$) addition of the variables: intrinsic values and extrinsic values did not significantly improve on the prediction by classroom goal structures.

Table 18. Unstandardized and standardized regression coefficients of values controlling for classroom goal structures

<u>Predictors</u>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>p-values</i>
PAP	-.15	.07	-.19*	< .05
MAp	.16	.09	.16	.08
IntV	.30	.14	.18*	< .05
ExtV	-.04	.09	-.04	.66
Constant	1.96	.66		< .05

* $p < .05$

In Table 18, standardized coefficient β weight (= -.19) for PAP showed that PAP was a statistically significant negative predictor of life satisfaction ($p < .05$) and β weight (= .16) for MAp showed that it was not a statistically significant predictor of life satisfaction anymore ($p > .05$). When the intrinsic values and extrinsic values were added, it was seen that intrinsic values was a positive statistically significant predictor of life satisfaction ($\beta = .18, p < .05$). The following equation shows the interpretation for the unstandardized coefficients of classroom goal structures predicting life satisfaction.

$$Lfsat = 1.96 - 0.15 * PAP + 0.16 * MAp + 0.30 * IntV - 0.04 * ExtV$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{Lfsat} = -0.19 * Z_{PAP} + 0.16 * Z_{MAp} + 0.18 * Z_{IntV} - 0.04 * Z_{ExtV}$$

Table 19. Model summary for classroom goal structures, values and culture predicting life satisfaction

	R^2	Adjusted R^2	F	p_F	ΔR^2	F change	p_{F Change
<u>Step 3</u>	.11	.06	2.13	< .05	.02	.93	.45

* $p < .05$

In Table 19, given that $R^2 \neq 0$, and $R^2_{\text{adjusted}} \neq 0$, this indicated that the model explains only 6% of the variability in perceived performance approach classroom goal structures. R^2 change showed that ($\Delta R^2 = .02$) addition of the variables: intrinsic values and extrinsic values, collectivism and individualism did not significantly improve on the prediction by classroom goal structures.

Table 20. Unstandardized and standardized regression coefficients for values and culture predicting life satisfaction controlling for classroom goal structures.

<u>Predictors</u>	B	SEB	B	p -values
PAP	-.15	.07	-.18*	< .05
MAp	.14	.09	.14	.13
IntV	.29	.15	.18	.06
ExtV	-.04	.10	-.04	.68
VC	.20	.14	.15	.16
HC	-.24	.14	-.16	.10
VI	-.01	.11	-.01	.91
HI	.12	.12	.08	.33
Constant	1.80	.82		< .05

* $p < .05$

In Table 20, standardized coefficient β weight (= -.18) for PAP showed that PAP was a negative statistically significant predictor of life satisfaction ($p < .05$). When the values and cultural dimensions were added, it was seen that they were not

statistically significant predictors of life satisfaction ($p > .05$). The following equation shows the interpretation for the unstandardized coefficients of classroom goal structures, values and culture predicting life satisfaction.

$$Lfsat = 1.80 - 0.15 * PAp + 0.14 * MAp + 0.29 * IntV - 0.04 * ExtV + \\ 0.2 * VC - 0.24 * HC - 0.01 * VI + 0.12 * HI$$

When the variables and the coefficients are standardized, the equation becomes the following.

$$Z_{Lfsat} = -0.18 * Z_{PAp} + 0.14 * Z_{MAp} + 0.18 * Z_{IntV} - 0.04 * Z_{ExtV} \\ + 0.15 * Z_{VC} - 0.16 * Z_{HC} - 0.01 * Z_{VI} + 0.08 * Z_{HI}$$

As in Table 15-20, in the first step it is seen that when performance-approach goal structures are perceived in the classrooms, the life satisfaction levels decreases, and while mastery approach goal structures are perceived, life satisfaction increases.

However in the second step, the intrinsic values, taking the variance of the MAp goal structures, were revealed as positive predictor of life satisfaction whereas in the third step, where cultural orientations were also included, only PAp goals structures remained a negative statistically significant predictor of life satisfaction.

CHAPTER 5: DISCUSSION

Introduction

Culture is a general, broad term which can be defined in many different ways. Culture includes values, societies, groups, traditions, ideas and shortly the way to live a life. Culture can be referred to the specific characteristics of an ethnic group but it can also be referred to particular characteristics of a specific group in a society. Each religious group, each athletic group or educational institution has its own culture. In this sense, academic culture of a university campus, according to Shen & Tian (2012), is the external manifest of common values, and behaviors of people who are conducting their study. However, because each discipline has its own particular tradition in each university and internationally, it is assumed that for each discipline a unique cultural atmosphere is created in faculties which has a relationship with the university students' perceptions, values and experiences. Even in the same university, there are different cultural orientations and it is possible to explain these cultural differences taking into consideration, students' field of studies among other factors. The particular culture of each field of study may also be related with students' interpretation of teacher's goal related messages in the university classroom (i.e., perceived classroom goal structures) (Ames, 1992; Elliot & Murayama, 2009; Urdan, 2004).

This particular issue is addressed in the present study. Specifically, this research investigates the relationship among cultural orientations, values and perceived classroom goal structures of university students from different disciplines (i.e. social sciences versus engineering and sciences). An overview of the major findings of the

study is presented below, while implications for practice and future research are discussed afterwards. The limitations of the study and directions for future research are mentioned at the end of this chapter.

Overview of the study

The present study is a cross-sectional survey in which 177 university students from various departments (categorized in the disciplines of social sciences and engineering/sciences) reported their cultural orientation (i.e. horizontal collectivism, vertical collectivism, horizontal individualism and vertical individualism); their intrinsic and extrinsic values, their perceived classroom goal structures and their life satisfaction.

This study tries to find the answers to the following research questions:

- Are there any differences between students from social sciences and sciences in their perceptions of classroom goal structures, intrinsic/extrinsic values and cultural orientation?
- Are students' perception of classroom goal structures predicted by their intrinsic/ extrinsic values and their individualistic and collectivistic orientation while controlling for the discipline of their studies?
- Is students' life satisfaction predicted by their intrinsic and extrinsic and their individualistic or collectivistic orientation controlling for their perceptions of classroom goal structures?

Discussion of major findings

The discussion for each of the three research questions are given below in details.

Disciplines vs. classroom goal structures, values and culture

Regarding differences in perceived classroom goal structures in the two disciplines of social sciences, and engineering and sciences, our results show that students from engineering and sciences departments perceive the climate of their classroom as more competitive than the students from social sciences departments. It seems that students from engineering and sciences departments saw a focus on performance-approach goal structures in their classrooms. One of the reasons of this result may be the backgrounds of these students. According to ÖSYM's statistical data for selection and placement exam for university in 2013, the engineering and sciences departments (MF- Maths & Science) are selected by students with a higher degree than social sciences (TM- Turkish & Maths) departments (ÖSYM, 2013). Thus, a higher performance is necessary for a student in order to succeed in the "MF-Maths & Science" departments. Therefore, the competition among the students in engineering & sciences is higher and probably this competitive past experience of students attending engineering and sciences departments could lead them to the adoption of PAp goals. These personal PAp goals could color their perception of classroom goal structures (Murayama & Elliot, 2009). In a different way, students who have chosen social sciences departments could have more MAp goals. Their personal history before the university exams could orient them to give more importance in learning and self-improvement than outperforming their group mates. Their MAp goal orientation could further color their perception for their classroom

atmosphere making them to see it as more focused on mastery classroom goal structures.

Another reason for a higher perceived PAp goal structures by students from engineering and sciences may be the different grading system that each department uses. When a department uses *norm referenced grade system*, then students' successes depend on other students' performance. However, if the grading system is *criterion referenced grading system*, then the students' success depends on self-improvement. According to the university grading system, the *criterion referenced grading system* is mostly used in social sciences, whereas *norm referenced grade system* is mostly used in engineering and sciences departments. The competitive atmosphere that the *norm referenced grade system* of students' evaluation creates in a classroom could be an additional reason for a more prominent performance-approach goal structures.

Regarding students' intrinsic and extrinsic values, MANOVA showed that there is no difference between social sciences students and engineering and sciences students. This means there is no statistically significant relationship between the field of study and the students' values. Social science students have both intrinsic and extrinsic values. In other words, they study for money and fame or community well-being and individual interests. The same situation is true for the engineering and sciences students. Some students have intrinsic values and some other have extrinsic values. The reason for this could be the previous backgrounds of the students. Some students could come from a family and the environment that give importance to intrinsic

values or extrinsic values and these students did not change their values when they enter the university and study in a particular department.

Regarding students' cultural orientation, the results show that students from engineering and sciences have more horizontal individualistic as well as vertical collectivistic approaches than the social sciences students. This means that students from sciences give importance to their personal goals and pursuits while they perceive a non-hierarchical structure in their societal group. However these same students seem to exhibit simultaneously a totally different cultural orientation that has to do with an attributed importance to group values (instead of personal ones) and to group hierarchy. As it is hypothesized that students from engineering and sciences departments have an experience in competitive educational settings, one would expect these students to have a higher vertical individualistic orientation which means that individuals' values and pursuits are the center of interest for sciences students while they perceive themselves as members of a well hierarchically structured group. As this was not the case for the present sample of engineering and sciences students, it seems that other factors probably related with family's values, religion or ethnicity could be stronger predictors of students' cultural orientation than their disciplines values and tradition.

Additionally, it is important to mention that the internal consistency of the subscales of cultural orientation was not excellent but acceptable and as a result the findings related to these four cultural orientations should be interpreted with caution (for HC, $\alpha = .43$). The low internal consistency of the subscales could be due to the reduced version of the original scale used in the present study. Six scenarios (out of twelve

scenarios in the original scale) were used in the present study. Moreover, these six questions, in a retrospect reexamination of their content, appeared to be different in terms of the context to which they are referred. For example, one scenario, “the best society is one where...” is about cultural orientations. According to some students for the best society, it is important to have equal opportunities, to live independent from others or to get more money than others and the other scenario was about “choosing a course for the next semester” and the student chooses the course according to his or her interests, the professors’ advices, friends’ choices or the success comparing to other students. Students’ individualistic and collectivistic approaches may differ in various contexts. Some students may have vertical individualistic approaches in their academic life while others may not. However, some students may have horizontal collectivistic approaches in political issues while some others may not.

Values & culture predicting classroom goal structures (Controlling for disciplines)

Our findings showed that only discipline of the studies predicted positively the perceived PAp goal structures. It seems that the engineering and sciences discipline create a particular culture probably because of students past experience in performance goal structures that focuses on excellence performance with normative criteria.

Even more importantly the findings suggested that MAp oriented goal structures were predicted by intrinsic values, that is the values of meaningful relationships, community support and personal development. All these intrinsic values seem to

come from the within and are related to one's optimal functioning and well-being (Kasser & Ryan, 2001).

Similarly, MAp goals and MAp goal structures have been identified as adaptive patterns of behavior, affect and cognition and therefore as more related with ones' optimal development (Kaplan & Maehr, 1999). Taking into consideration this evidence, it seems logical and interesting that the positive relation between perceived MAp goal structures and intrinsic values has been verified. It is more likely to perceive a focus on learning and self-improvement - that is MAp goal structures- in their classroom than a focus on competition for students who have the intrinsic values of personal development and meaningful relationships.

Given that intrinsic values are relatively stable personal characteristics that the students have endorsed after a long history and experience, it is assumed that probably the perceived classroom goals structures could be more sensitive (and probably depend on) to students personal characteristics than to the real classroom characteristics promoted by the teachers. The predictive value of the engineering and sciences discipline for the PAp goal structures give a further support to such an assumption.

Regarding the cultural orientation, the results show that the vertical individualism predicted the perceived MAp goal structures. The vertical individualism orientation means that the student sees him or herself as a part of a societal group in which individuals give importance to their own improvement and in which a social hierarchy is well defined. People, who have individualistic approach, give

importance to their own wishes, interests and values, and not on the groups' interests and values. According to this perspective it seems logical for an individualistic student to perceive a focus on individuals' improvement and learning than a focus on others performance. However, vertical dimension of individualism means that a well-defined hierarchy is accepted by the student. Such an endorsed value could be equally related to perceived PAp goal structures but still could not prevent from a relation to perceived MAp goal structures which could also be conceived as a focus in excellence. Far from this interpretation, it is not excluded the case, the predictive value of vertical individualism for MAp goal structures to be a random finding due to poor statistical properties of cultural orientation instrument.

Values & culture predicting life satisfaction (Controlling for classroom goal structures)

Our findings suggest that in the first step of the hierarchical regression, PAp goal structures are an important negative predictor of students' life satisfaction as an important indicator for students' well-being. It means that when a student perceives PAp oriented goal structures in educational environment, the life satisfaction level decreases. Performance-approach orientation in classroom goal structures means that the classroom's focus is on high grades, and being more successful than other students in the classroom. In this regard, a focus on outperforming others to gain a better status is much similar with the extrinsic values. When individuals have the extrinsic values of fame, worthy and high status, they tend to ignore activities that will promote their well-being (Schmuck et al., 2000). In the present study, in which perceived PAp goals structures have been also related to engineering and sciences department, an additional explanation for the lower life satisfaction of students who

tend to be high in perceived PAp goal structures could be their stressful experiences related to university exams. There is a positive correlation between academic stress and low course grades (Struthers et al, 2000). Students want to get high grades and if they do not, their self-esteem may be affected negatively by the results. Then, this may cause that students are not satisfied with their lives.

According to the study's results, in the first step of the hierarchical regression, there is also a statistically significant positive relationship between perceived MAp classroom goal structures and life satisfaction. When students perceive that they are a part of an educational environment where deep learning and focus on the task at hand is highlighted, they feel satisfied with their life. According to Kaplan & Maehr (1999), MAp goals and well-being are strongly correlated and this fact has also been verified in the present study.

In the second step of the hierarchical regression, when intrinsic values are added as predictors of life satisfaction, MAp goal structures were not statistically significant predictors of students' life satisfaction anymore. Intrinsic values took the explanatory variance of MAp goal structures and that became a positive statistically significant predictor of students' life satisfaction. As in this study intrinsic values predicted MAp goal structures; intrinsic values directly predicted life satisfaction in the second step of the hierarchical regression analysis. Previous studies have also shown that there is a strong positive relationship between intrinsic values and life satisfaction (Kasser & Ryan, 1993; Ryan, 1995; Schmuck, Kasser & Ryan, 2000). PAp goal structures, however, remained statistically significant negative predictors of life satisfaction in the second step.

In the third step of the hierarchical regression, when cultural dimensions are added in the analysis, the model suggested that only PAp goal structures were (negative) predictors of students' life satisfaction. This result showed that when all the cultural variables are in the model, the strongest predictor of life satisfaction -yet negative- was PAp goal structures.

In the first hierarchical regression analysis, the results show that engineering and sciences students perceive more PAp goal structures. In the second hierarchical regression analysis, the results show that students who perceive PAp goal structures are less satisfied with their lives. Therefore, it is possible to say that engineering and sciences students are less satisfied with their lives than social sciences students.

Implications for practice

Looking at the classroom climate, teachers could create a learning environment where students can show their effort according to students' beliefs, values and their cultural background. The reason for this is that students may feel more connected to the lesson when they see examples from their culture or values. Also, according to Bishop (1988), education is a premeditated form of cultural learning. Therefore, the classrooms are the best places for understanding different cultures and creating a more diverse environment. For example, if a classroom includes mostly individualistic students, teacher could differentiate the learning more. If the students are mostly collectivistic, teachers may use group works in the lessons. Taking into consideration that classroom is a multicultural environment especially when they are consisted of foreign students, it could be helpful for the teachers to consider students' cultural backgrounds. A student from a vertical individualistic context (e.g. from the

USA), could adapt more difficultly to a horizontal collectivistic school culture (Markus & Kitayama, 1991; Weldon, 1984). According to the result of the present study, there is a strong positive relationship between the vertical individualism and MAp goal structures. Therefore, in a vertical individualistic environment (country, city, university), it is better to foster MAp goal structures than the students could learn better.

Increasing students' perceived PAp goal structures could increase students' performance approach goals and according to the study of Linnenbrink (2005), performance approach goals are detrimental for achievement and test anxiety. In addition, the current study shows that PAp goal structures are negatively related with life satisfaction. For these reasons, it is important to foster students' both cognitive and personal development. Instead of increasing PAp goal structures, teachers could give importance on students' awareness of their intrinsic values so that their mastery goals most probably will increase, they will learn deeply.

Perceiving MAp goal structures are also important for classroom setting because students could learn deeply and then according to the current study results, students would be more satisfied with their lives. Therefore, teachers could create a learning atmosphere where students are interested and engaged in the lesson. Therefore, students would want to learn the task not to get good grades or not to be better than others. Considering the MAp goal structures, perceived MAp goal structures are statistically significant positive predictors of motivational outcomes such as effective learning strategies (Michou, Mouratidis, Lens, & Vansteenkiste, 2013). Learning strategies are important for students' effective learning. As a result, teachers could

use classroom materials to foster students' perceived MAp goal structures and teachers could give importance to learning, not the grades or normative performance. Regarding the observed differences according to different studies discipline in students' perceptions about their classroom goal structures, university departments could reconsider the learning environment they create for their students. The results of the present study showed that PAp classroom goal structures are negative predictors of students' life satisfaction. Therefore, professors, teachers, university and school administrators could think seriously about the evaluation system of their institution as well as the teaching practices that this evaluation system could encourage. When students worry about the grades, they give far less importance to deep learning and they feel far less satisfied by doing useful and productive things for themselves and the community.

The results of the present study have strong implications for education policy makers. It seems that designing curricula that are learner centered and inspired by the differentiated pedagogy could further contribute to students' development and well-being. Each student is a different individual with different cultural background, values, and learning styles. By establishing through the curriculum a differentiated approach in teaching, students' particularities are taken into consideration and their development would be fostered. To this direction the collaboration between the counselors and teachers may prove helpful to understand how students can learn best. With individualized programs, teacher and each student come together to discuss student's self-improvement about the subjects.

Implications for further research

This study is about the students' culture and values predicting students' perceived classroom goal structures. This research was carried out by university students in different departments and the results show that there is an important difference between social sciences students and engineering and sciences students according to their perceived classroom goal structures. In the future research, it can be useful to discover high school students in Turkey because the grading system is different in high schools. Furthermore, in high schools, there are two dominant groups MF (mathematics & science) and TM (turkish and mathematics). Therefore, it is a preparation for university and for their departments. It would be expected that most of high school students show perceived classroom goal structures because university selection and placement exam has a big role on students' values.

Another study would be about the relationship between people who have analytic thinking skills and problem solving skills in their fields and the competence related to it. Since the engineering and sciences students are dealing with some technological, natural and physical problems, they are mostly focusing on the result. Focusing on the result may have a relation with competence. However, social sciences students are dealing with human beings and societies. They may not compete with each other in that way. Therefore, it is better to do further research about their thinking skills and their competence.

In addition, it is important to research the relationship between culture and values in a different learning climate other than in the classroom. For example, how parents

educate their children when the parents have intrinsic values or in a vertical collectivistic society how people learn are important questions for future research.

Limitations

This present study showed the importance of the values and culture in the classroom setting. For example, intrinsic values and perceived MAp goal structures have a strong positive relationship. Beside the significant results, there are some limitations for this study. First of all, the study is cross-sectional and therefore, talking about the changes over time is inappropriate. Also, it is a correlational study, which means it only investigates the relationship between the variables, not any causal effects. Second, there were only some parts of the original scenario in the questionnaire of the cultural orientation. For example, in the original scenarios there is a question like “How does a student prefer to handle difficult class assignments?” but it is not included in the questionnaire. Third, according to the results, the internal consistency of horizontal collectivism is low ($\alpha = .43$). Fourth, the sample is chosen from the university students’ population. Therefore, the result of this study cannot be generalized to the younger students (ex. high school or middle school students). Another limitation is that Turkey is a collectivistic society and the study conducted in an urban area. Therefore, the answers of students should be considered taking that limitation into account.

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APPENDICES

Appendix A: Questionnaire (in Turkish)

Cinsiyet: K/E

Yaş:

Bölüm:

Tarih:

A. Lütfen aşağıdaki ifadelerin yanındaki dereceleri kullanarak ne kadar önemli olduğunu belirtiniz

Aşağıdaki hedefler hayatınızda nasıl bir öneme sahip? Size uygun seçeneği işaretleyerek belirtiniz.	Çok önemsiz	Önemsiz	Ne önemsiz ne de önemli	Önemli	Çok önemli
1. kişiliğimi geliştirmek	1	2	3	4	5
2. finansal olarak başarılı olmak	1	2	3	4	5
3. diğer insanlara yardım etmek (ihtiyaç duyduklarında)	1	2	3	4	5
4. diğer insanlarla yakın ve iyi ilişkiler kurabilmek	1	2	3	4	5
5. yaptığım şeylerle tanınmak ve beğenilmek için	1	2	3	4	5
6. çekici ve güzel görünmek	1	2	3	4	5
7. beni önemseyen arkadaşların etrafımda olması	1	2	3	4	5
8. yeteneklerimi geliştirmek	1	2	3	4	5
9. toplumu geliştirecek bir şey yapmak	1	2	3	4	5
10. zengin ve pahalı mal mülk sahibi olmak	1	2	3	4	5
11. birçok insan tarafından tanınmak	1	2	3	4	5
12. moda trendlerini takip etmek (örn.,giysiler, saç stilleri, ...)	1	2	3	4	5
13. birey olarak gelişmek ve yetişmek	1	2	3	4	5
14. birçok finansal başarıya sahip olmak	1	2	3	4	5
15. küçük şeyler yaparak dünyayı daha iyi bir yer haline getirmek	1	2	3	4	5
16. güvенеbileceğim arkadaşlarla etrafımın çevrili olması	1	2	3	4	5
17. popüler olmak	1	2	3	4	5
18. ince (kadınlar için) ya da kaslı (erkekler için) görünüşe sahip olmak	1	2	3	4	5

B. Aşağıda 6 tane senaryo göreceksiniz. Bu senaryolar öğrencilerin hayatlarından çeşitli parçaları içeriyor. Her senaryo için 4 tane seçenek var. Lütfen bu senaryoları hayal ediniz, 4 seçeneği de okuyunuz ve her seçeneği değerlendirirken **TİPİK BİR TÜRK ÖĞRENCİ'nin** tepkisinin ne olacağını göz önünde bulundurunuz. Unutmayın, bu kısımda doğru ya da yanlış cevap yok.

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyor ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
Mutlu bir üniversite hayatına sahip olmak için, bir öğrenci...					
... topluluğuna karşı sadık olmalı ve onun yararı için kendi çıkarlarından vazgeçmeye hazır olmalı	1	2	3	4	5
... dost canlısı bir çok insanla bağ kurup onlarla duygu ve düşüncelerini paylaşmalı	1	2	3	4	5
... bağımsız olmalı ve neyden hoşlanıyorsa onu yapmalı	1	2	3	4	5
... diğer öğrencileri farklı alanlarda yenmeli (ders çalışma, spor, sanat, vb.)	1	2	3	4	5

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyor ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
Sınıfta bir anlaşmazlık çıktı ve öğrenciler taraf almak zorunda. Gerçekleşmesi en mümkün davranış şekli nedir?					
Olayın aslını tamamıyla dinlemek ve bağımsızca tarafımı belirlemek	1	2	3	4	5
Profesörle bu olayı tartışmak ve onun bulunduğu tarafta yer almak	1	2	3	4	5
Bu olayı öğrencilerin arkadaşlarıyla tartışmak ve onların görüşünü dikkate almak	1	2	3	4	5
Öğrenciye ileride yarar sağlama ihtimali yüksek olan pozisyonun hangisi olduğunu göz önünde bulundurmak	1	2	3	4	5

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyor ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
Öğrenci kampus organizasyonlarından birine katılmayı düşünüyor. Hangi faktör öğrencinin organizasyon seçiminde en önemlidir?					
Öğrencinin en çok eğleneceği organizasyon	1	2	3	4	5
Özgeçmişinde en güzel görünecek olan organizasyon	1	2	3	4	5
Arkadaşlarından bazılarının ve sınıf arkadaşlarının hâlihazırda üyesi olduğu organizasyon	1	2	3	4	5
Profesörün ya da öğrenci topluluğunun yüksek statüdeki üyelerinin tavsiye ettiği organizasyon	1	2	3	4	5

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyor ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
Bir öğrencinin gelecek dönem için bir ders daha seçmesi gerekiyor. Ders seçebilmek için belirlenmesi gereken doğru yol hangisidir?					
Öğrenciyi herkesin önüne geçirmeye yardımcı olacak ders	1	2	3	4	5
Profesörün/süpervizörün önerdiği ders	1	2	3	4	5
Öğrencinin arkadaşlarının almayı planladığı ders	1	2	3	4	5
Öğrenciye en ilgi çekici gelen ders	1	2	3	4	5

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyor ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
En iyi toplum...					
İnsanların topluma sağladıkları yarar arttıkça daha fazla para ve saygınlık kazandıkları yerdir	1	2	3	4	5
İnsanların aşağı yukarı eşit gelire ve eşit fırsatlara sahip oldukları yerdir	1	2	3	4	5
İnsanların hayatlarını bağımsızca sürdürebildikleri ve keyif aldıkları şeyleri yaptıkları yerdir	1	2	3	4	5
İnsanların kendi çıkarlarını toplumun çıkarları için feda ettikleri yerdir	1	2	3	4	5

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyorum ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
Bir öğrenci topluluğunda olması gereken en önemli davranış...					
Diğer öğrencilerle duygu ve düşünceleri paylaşmak	1	2	3	4	5
Topluluğa sadık olmak ve lidere uymak	1	2	3	4	5
Kendi kendine yetmek ve kendini düşünmek	1	2	3	4	5
Diğer öğrencilerden başarılı ve onlardan daha iyi bir pozisyonda olmak için çaba göstermek	1	2	3	4	5

C. Aşağıdaki ifadelere katılıp katılmadığınızı görüşünüzü yansıtan rakamı maddenin başındaki boşluğa yazarak belirtiniz. Doğru ya da yanlış cevap yoktur. Sizin durumunuzu yansıttığını düşündüğünüz rakam bizim için en doğru yanıttır. Lütfen, açık ve dürüst şekilde yanıtlayınız.

5 = Kesinlikle katılıyorum

4 = Katılıyorum

3 = Ne katılıyorum ne de katılmıyorum

2 = Katılmıyorum

1 = Kesinlikle katılmıyorum

1. ____ Pek çok açıdan ideallerime yakın bir yaşamım var
2. ____ Yaşam koşullarım mükemmeldir
3. ____ Yaşamım beni tatmin ediyor
4. ____ Şimdiye kadar, yaşamda istediğim önemli şeyleri elde ettim
5. ____ Hayatımı bir daha yaşama şansım olsaydı, hemen hemen hiçbir şeyi değiştirmezdim.

D. Aşağıda katıldığınız ----- dersiyile ilgili ifadeler göreceksiniz. Lütfen bu ifadelere ne ölçüde katıldığınızı size uygun seçeneği işaretleyerek belirtiniz.

----- dersini düşündüğümde	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyor ne de katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
1. Bu derste, öğrenciler diğerlerine kendilerinin ne kadar zeki olduklarını gösterirler.	1	2	3	4	5
2. Bu sınıfta, dersi sadece ezberlemek değil, anlamak önemlidir.	1	2	3	4	5
3. Bu derste, öğrenciler diğer öğrencilerden daha başarılı olmak isterler.	1	2	3	4	5
4. Bu sınıfta, öğrencilerin temel amacı gerçek anlamda konuyu anlamaktır.	1	2	3	4	5
5. Bu derste, öğrenciler arasında çok fazla rekabet vardır.	1	2	3	4	5
6. Bu derste, öğrenciler diğerlerinden daha başarısız olmamaya çabalarlar.	1	2	3	4	5
7. Bu sınıfta, olabildiğince çok öğrenmek esastır.	1	2	3	4	5
8. Bu derste, öğrenciler dersi anlamıyormuş gibi görünme konusunda endişelenirler.	1	2	3	4	5
9. Bu sınıfta, öğrencilerin kendilerini ne kadar geliştirdiği gerçekten önemlidir.	1	2	3	4	5
10. Bu sınıfta, öğrenciler çok çaba harcarlar.	1	2	3	4	5
11. Bu derste, öğrenciler çalışmanın kendileri için zor olduğu izlenimini vermek istemezler.	1	2	3	4	5
12. Bu derste, en iyi öğrencilerden biri olabilmek için baskı vardır.	1	2	3	4	5
13. Bu sınıfta, yeni fikir ve kavramları öğrenmek çok önemlidir.	1	2	3	4	5

KATILIMINIZ İÇİN TEŞEKKÜRLER

Appendix B: Normality assumption

Data were analyzed considering the regression assumptions. First one is the normality assumption. The normal distribution of the dependent variables is checked with the skewness and kurtosis. According to Tabachnick & Fidell (2013), if skewness and kurtosis of the variables is zero, then the distribution is normal. If these values are between -1 and 1 then, the skewness estimate is tolerable. Skewness and kurtosis of the MAp goal structures are presented in Table 21.

Table 21. Skewness kurtosis for the dependent variable MAp goal structures

Dep. variable	N	Skewness	SE.	Kurtosis	SE.
MAp	151	-1.252	.197	1.895	.392

SE: Standard Error

According to the Table 21, the skewness and kurtosis are not between -1 and 1.

Therefore, it is better to use data transformation by using natural logarithm (Baker, 1934). The histogram of standardized residuals for MAp goal structures with normal curve is presented in Figure 1.

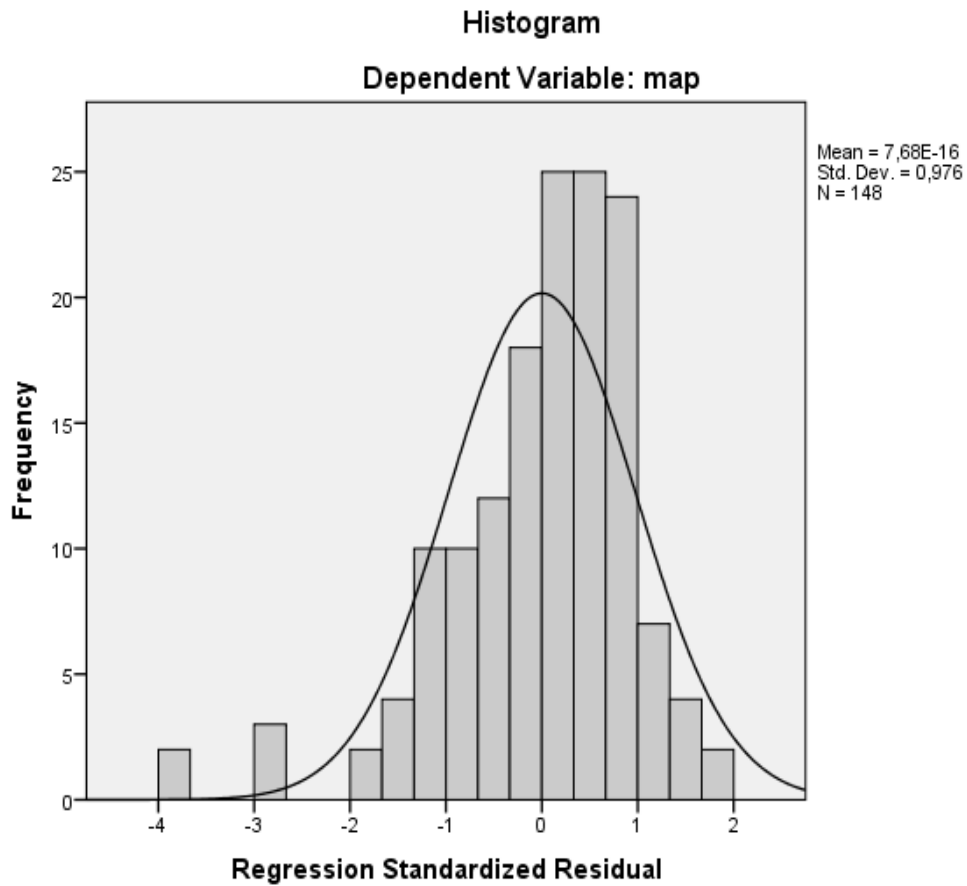


Figure 1 Histogram of standardized residuals for MAp goal structures.

Figure 1 shows that regression standardized residuals for *MAp goal structures* are assumed to be normally distributed since the frequency distribution for *MAp goal structures* look like a symmetrical bell-shaped or normal curve.

Normal P-P Plot of Regression Standardized Residual
 Dependent Variable: map

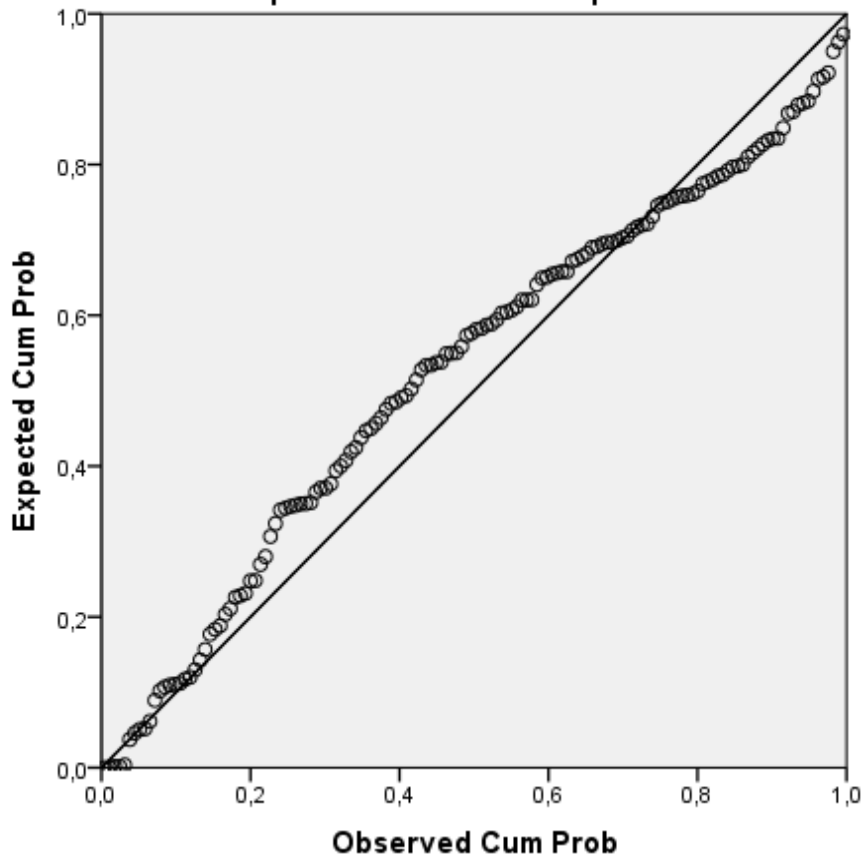


Figure 2 Normal P-P plot of residuals for MAp goal structures.

In *Figure 2*, the distribution is considered to be normal to the extent that the plotted points of residuals for *MAp goal structures* match the diagonal line.

Table 22. Skewness kurtosis for the dependent variable PAp goal structures

Dep. Variable	N	Skewness	Kurtosis
PAp	151	-.158	-.734

According to the Table 22, the skewness and kurtosis are between -1 and 1.

Therefore, according to Tabachnick & Fidell (2013) the distribution is normal. The

histogram of standardized residuals for PAp goal structures with normal curve is

presented in Figure 3.

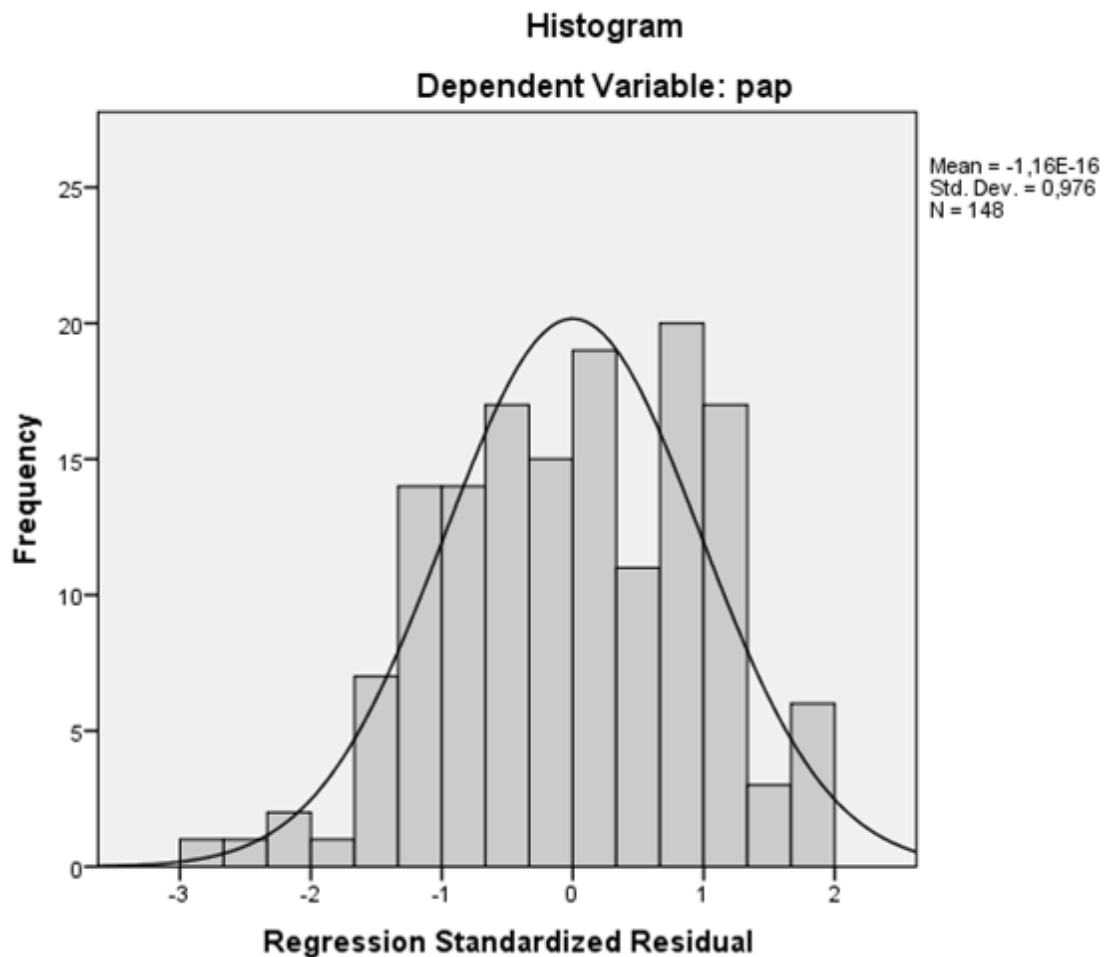


Figure 3Histogram of standardized residuals for PAp goal structures.

Figure 3 shows that regression standardized residuals for *PAp goal structures* are assumed to be normally distributed since the frequency distribution for *PAp goal structures* looks like a symmetrical bell-shaped or normal curve.

Normal P-P Plot of Regression Standardized Residual

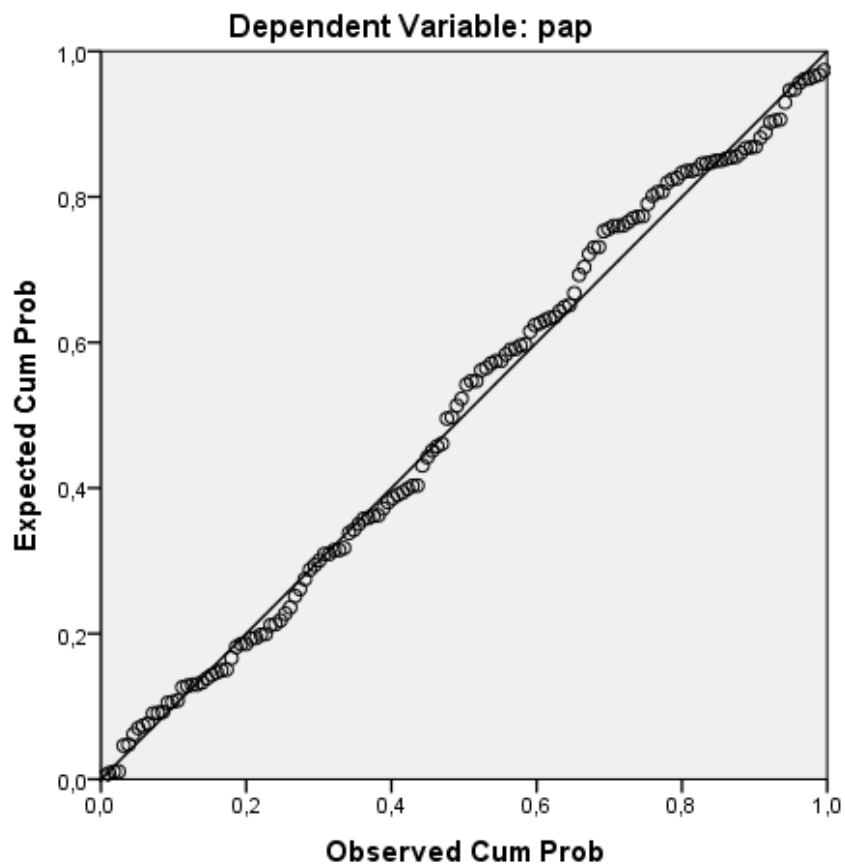


Figure 4 Normal P-P plot of residuals for PAp goal structures.

Figure 4, shows that the plotted points of residuals for *PAp goal structures* match the diagonal line. That means the distribution of the regression standardized residuals is normal.

Table 23. Skewness kurtosis for the dependent variable life satisfaction

Dep. Variable	N	Skewness	Kurtosis
Lfsat	164	-.324	-.199

According to the Table 23, the skewness and kurtosis are between -1 and 1. Therefore, according to Tabachnick & Fidell (2013) the distribution is normal. The histogram of standardized residuals for life satisfaction with normal curve is presented in Figure 5.

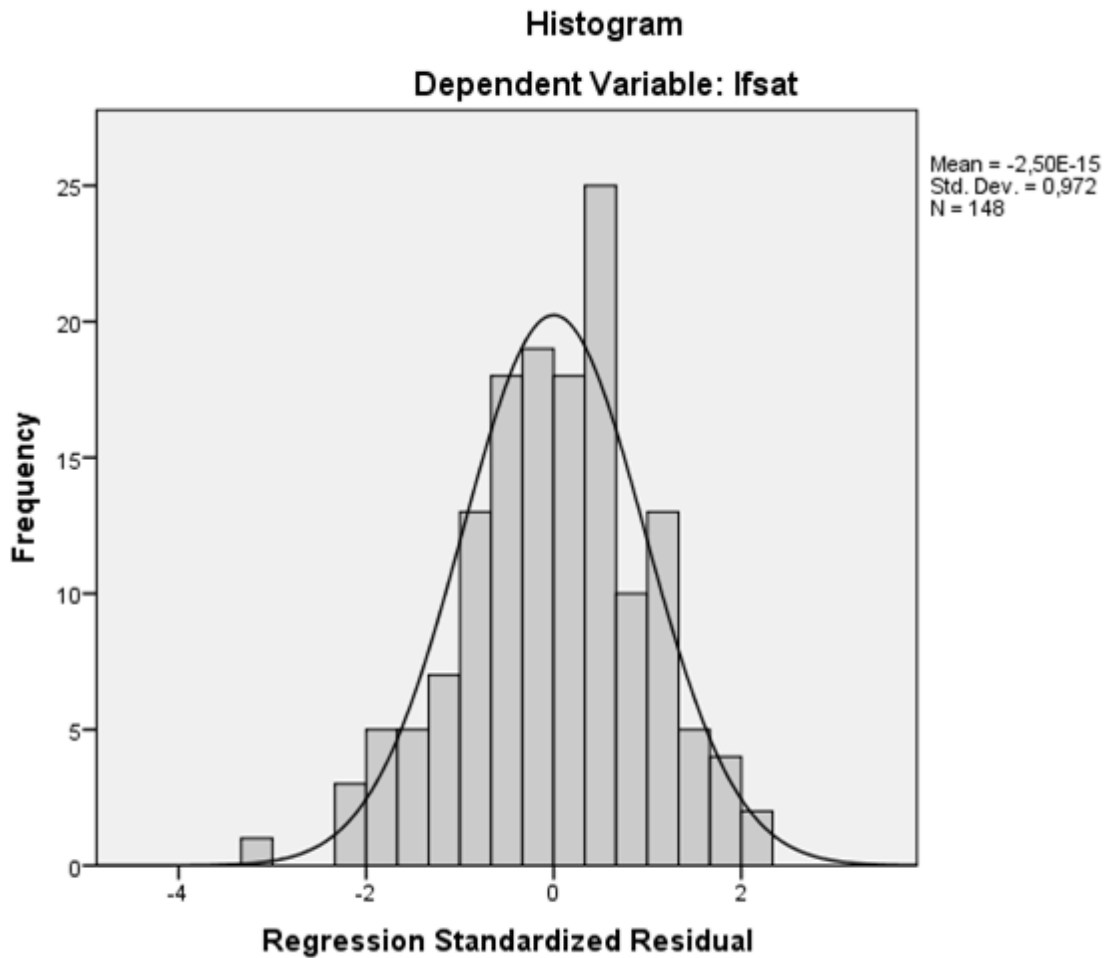


Figure 5 Histogram of standardized residuals for life satisfaction.

Figure 5, shows that regression standardized residuals for *MAp goal structures* are assumed to be normally distributed since the frequency distribution for *MAp goal structures* looks like a symmetrical bell-shaped or normal curve.

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: lfsat

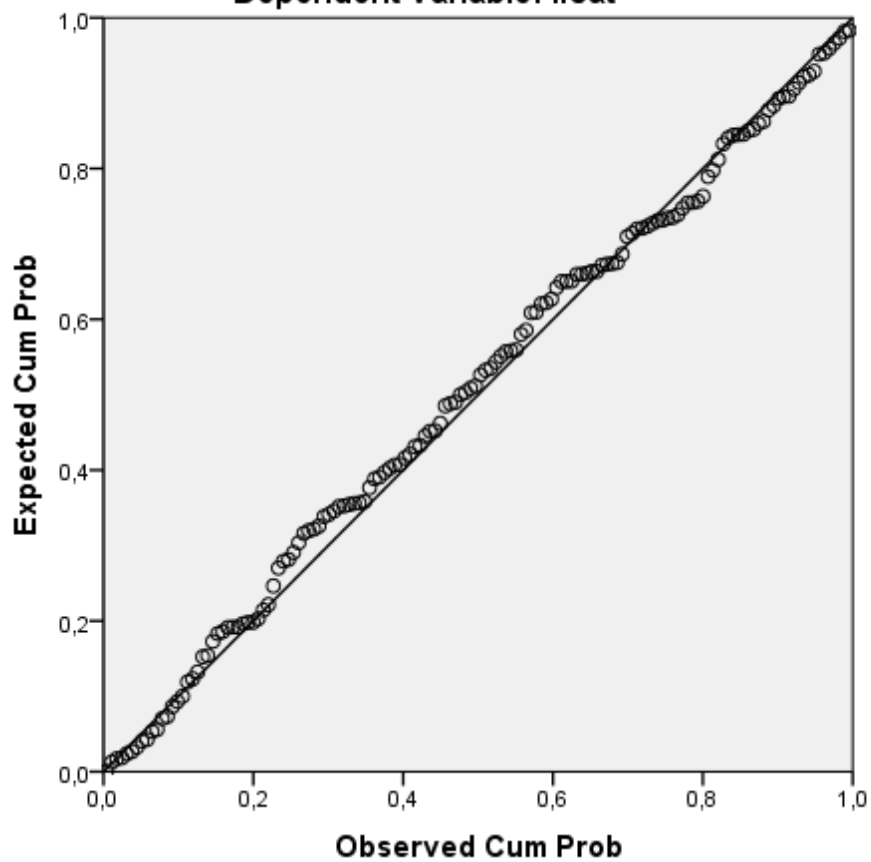


Figure 6 Normal P-P plot of residuals for life satisfaction.

Figure 6, shows that the plotted points of residuals for *life satisfaction* matches the diagonal line. That means the distribution of the regression standardized residuals is normal.

Appendix C: Homogeneity and linearity assumptions

Another assumption for hierarchical regression analysis is that the linearity. It is important that independent and dependent variables have a linear positive relationship. This assumption was checked by the scatterplots of the standardized predicted values against standardized residuals (Tabachnick & Fidell, 2013).

Homogeneity of variances was also checked. The *Figures 7, 8, 9* show the assumption of homogeneity of the variance of the dependent variables: MAp, PAp, & Lfsat. The values close to the horizontal line represents the well-predicted values.

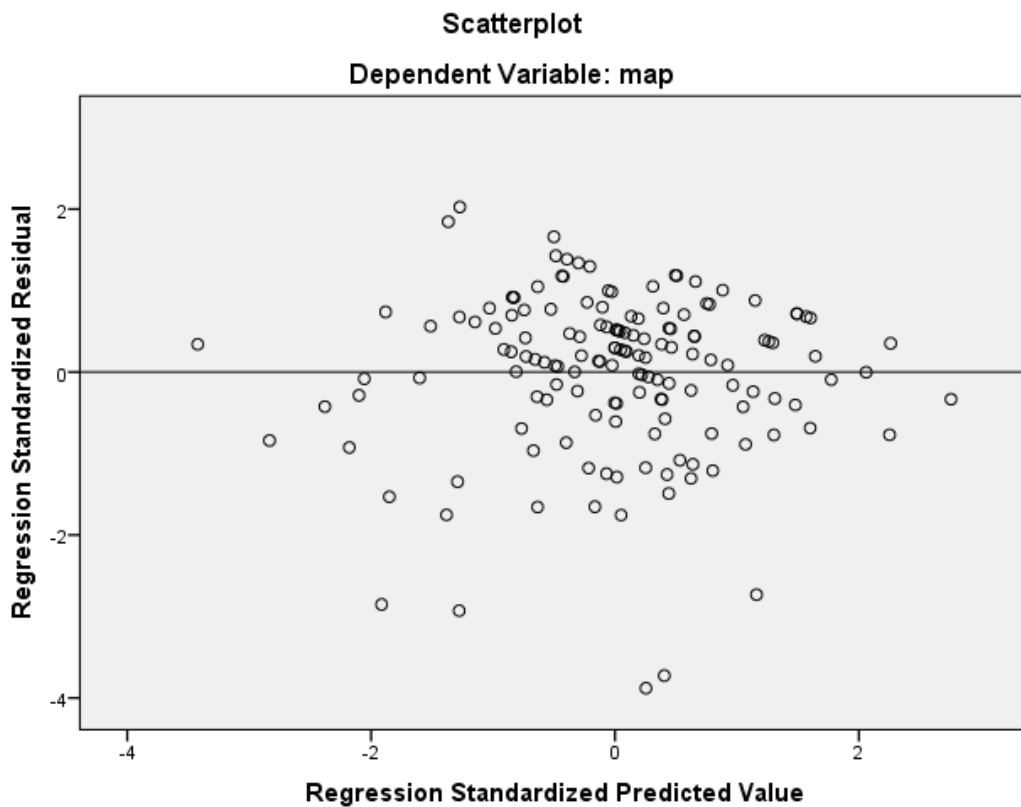


Figure 7 Scatterplots of residuals for MAp goal structures

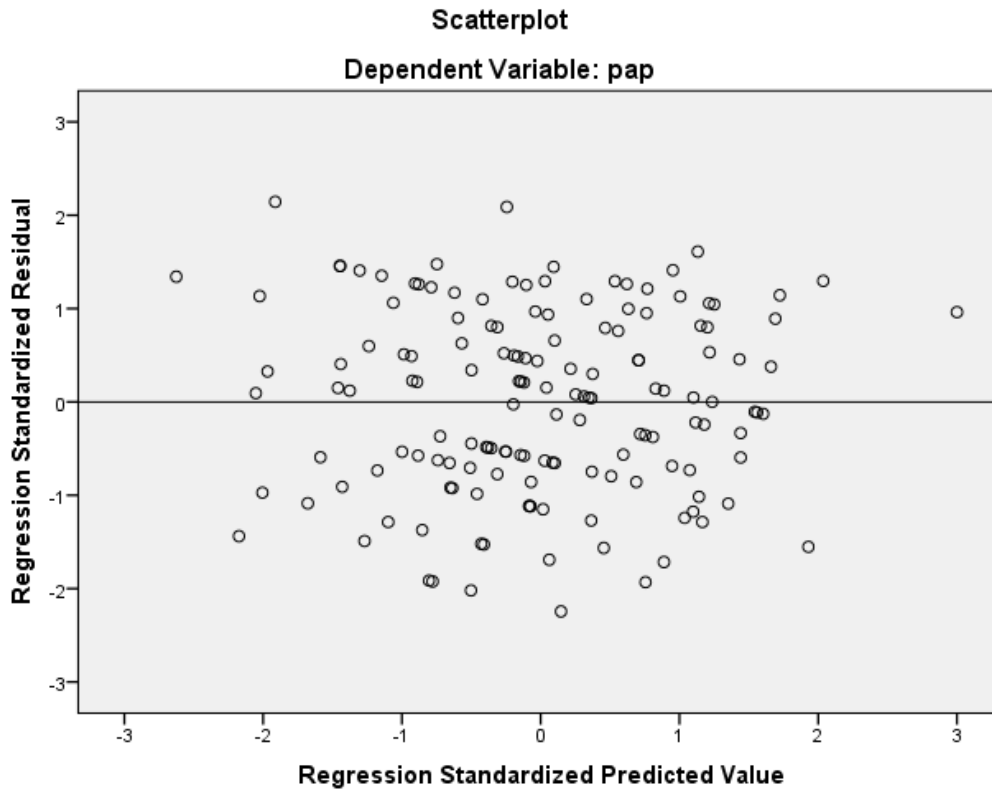


Figure 8 Scatterplots of residuals for PAp goal structures

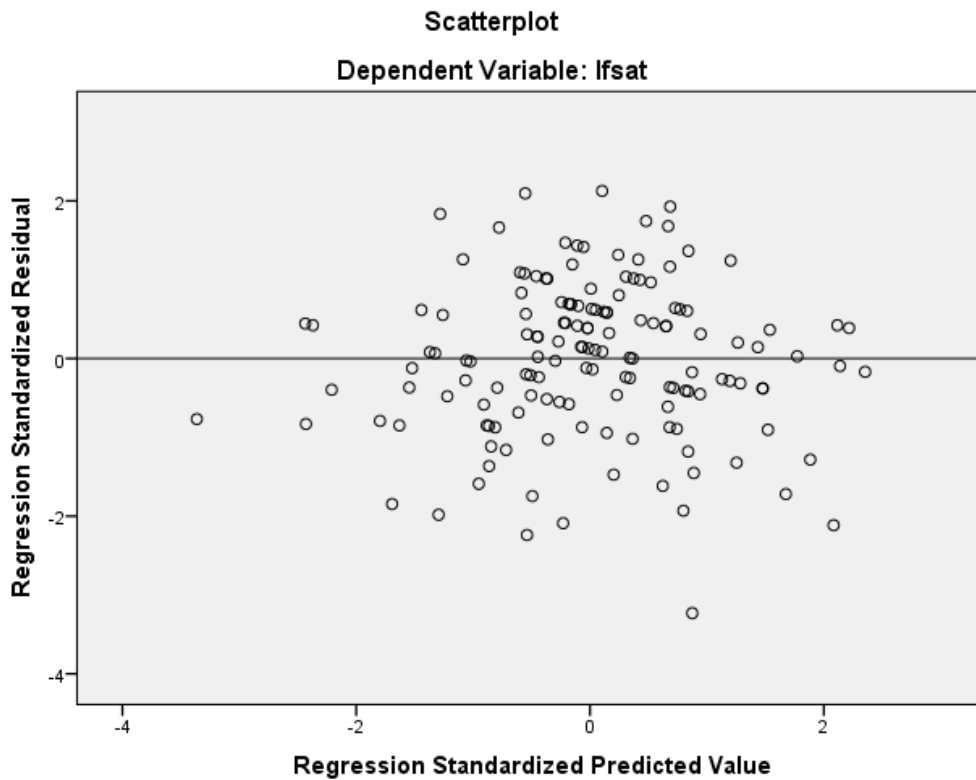


Figure 9 Scatterplots of residuals for life satisfaction

Multicollinearity (VIF – Tolerance)

Another important assumption is the multicollinearity. If the two or more independent variables are too highly correlated, then multicollinearity is a threat. Tolerance statistics and Variance Inflation Factor (VIF), which is the reciprocal of tolerance ($1/1-R^2$), and show that whether the relationship is too high or not. If VIF is less than 10, multicollinearity is not a threat. Tolerance statistics is the reciprocal of the VIF. The following tables 24, 25, and 26 show the VIF and Tolerance statistics for the dependent variables MAp, PAp & Lfsat respectively.

Table 24. The VIF and Tolerance for MAp goal structures

Independent Variables	VIF	Tolerance
VC	1.670	.599
HC	1.365	.733
VI	1.419	.705
HI	1.103	.907
IntV	1.215	.823
ExtV	1.225	.816

Table 25. The VIF and Tolerance for PAp goal structures.

Independent Variables	VIF	Tolerance
VC	1.670	.599
HC	1.365	.733
VI	1.419	.705
HI	1.103	.907
IntV	1.215	.823
ExtV	1.225	.816

Table 26. The VIF and Tolerance for life satisfaction.

Independent Variables	VIF	Tolerance
VC	1.723	.580
HC	1.436	.696
VI	1.494	.669
HI	1.146	.873
IntV	1.322	.757
ExtV	1.240	.806
PAp	1.253	.798
MAp	1.364	.733

Appendix D: Structure coefficients

Structure coefficient (r_s) is important to find the correlation between an independent variable (X) and the predicted variable (Y) with multiple regression model (Courville & Thompson, 2001). The structure coefficient can be calculated with the following formula (Thompson, 2008):

$$r_s = \frac{r_{XY}}{R}$$

R is the multiple correlation coefficient between Y and Y_{hat} scores. r_s and the β values together are helpful to find whether the multiple correlation is statistically significant or not. When $r_s=0, \beta=0$, the predictor is useless. It is important to look at both β weights and the structure coefficients to understand whether the predictor is useless or not (Thompson, 2008; Thompson & Borrello, 1985).

Table 27. Bivariate and structure coefficient for MAp goal structure in Hierarchical Analysis Model 3 ($R=.42$)

Independent variables	r_{XY}	r_{sXY}
IntV	.26*	.61
ExtV	.10	.23
VC	.31*	.73
HC	.24*	.57
VI	.30*	.71
HI	.11	.26

Note. r_s = structure coefficient.

Table 28. Bivariate and structure coefficient for PAp goal structure in Hierarchical Analysis Model 3 ($R=.21$)

Independent variables	r_{XY}	r_{sXY}
IntV	-.06	-.28
ExtV	-.02	-.09
VC	.25*	1.19
HC	.19*	.90
VI	.22*	1.05
HI	-.07	-.33

Note. r_s = structure coefficient.

Table 29. Bivariate and structure coefficient for life satisfaction in Hierarchical Analysis Model 3 ($R=.33$)

Independent variables	r_{XY}	r_{sXY}
MAp	.14	.42
PAp	-.14	-.42
IntV	.23*	.70
ExtV	.02	.06
VC	.08	.24
HC	-.05	-.15
VI	.03	.09
HI	.05	.15

Note. r_s = structure coefficient.