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Prologue

Man has been ceaselessly searching for excellence since the beginning of time. The search of the best has no bounds; humanity sets its own. The advancement of technology has hastened man's ambition to achieve the greatest. Nowadays, information and data are freely accessible to humans practically anywhere on the world. In practical terms, people have the ability to assess themselves based on the education they get. Additionally, there may be differences between the material provided in a social setting and that provided in a scientific journal. It is crucial that both individuals with and without research experience can easily understand the information presented in scientific publications when it comes to scientific standards. One could argue that there is a significant difference between someone who refers to a scientific journal and someone who solely uses everyday scenarios picked up from digital surroundings while speaking.

Scientific journals are significant information sources that have consistently been offered in the service of humanity in the context of science, in accordance with local, regional, and global standards. The authors, referees, and scientific committee should make every effort to make these sources of information better than they currently are. Writing a journal is a labor of love. As educators, it is our drive to do better job in the field of education. I hope we get the chance to interact with more writers and readers every day. We continue to make contribution to IJEL on behalf of those who have education as their top priority. We strive to include more knowledgeable content for you, our respected readers, in each of our publications. We sought to connect researchers from many domains with our international readers in this issue. This issue has been completed, and we are pleased to deliver it to you, our valued readers. This issue's topics include group behavior, virtual games, children's narratives, quantitative research, and organizational commitment. In actuality, operating with this understanding will be our top focus in order to consistently provide you with superior articles. Goodbye to meet in the new issue....

Warmest regards,

Erkan Kiral

December, 2022
Aydın/ TURKIYE



Organizational Commitment According to the Opinions of Classroom Teachers

Gülcan Bekez Esin¹, Ali Rıza Erdem²

Abstract

Organizational commitment is fundamental at school, as in many institutions. It is only possible for teachers to exhibit a successful performance and to deal with students in a highly motivated manner only if they have a strong organizational commitment. This research aims to determine the organizational commitment levels of teachers according to the opinions of primary school teachers and to determine how classroom teachers' organizational commitment levels differ according to demographic variables. Survey research, which is one of the quantitative research designs, was used. The study population of the research consists of 674 classroom teachers working in Efeler district of Aydın province in the 2021-2022 academic year. With the proportional stratified sampling method, 300 classroom teachers were sampled. According to the opinions of the classroom teachers, it was concluded that organizational commitment was moderate, moral commitment was high, self-interested commitment was moderate and forced commitment was very low.

Keywords: Educational sciences, organizational commitment, classroom teacher, opinion

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Introduction

In order for educational organizations to survive, employees need to focus on their work with knowledge and skills as well as good management. However, the knowledge, skills and expertise that employees have are not sufficient alone for the success of the organization. In addition, it is important that employees have a high level of organizational commitment. As employees' organizational commitment is strengthened, the success of their organization increases at the same rate. Employees with low organizational commitment have weak ties with the organization they are in, they do not strive to achieve the organization's goals. Individuals with moderate organizational commitment cannot feel belonging to the organization, even though they have adopted the policies, goals and goals of their organization. Although they are trying to achieve the organization's goals, problems arise when their individual interests and the organization's objectives do not match. Employees with strong emotional attachment to their organization are not their needs to remain in the organization, but their aspirations. Employees with high organizational commitment are working hard to achieve the goals and objectives of their organization. They have a strong desire to stay in their organization and thus perform much better than individuals with low organizational commitment.

The concept of organizational commitment has been a concept that is important and researched in educational institutions, as in other institutions. In parallel with the development of the concept of organizational commitment, there have been many studies in education organizations, especially since the 1980 years (Shin & Reyes, 1991; Anderman et al., 1991; Fresco et al., 1997; Somech & Bogler, 2002). The number of these studies has increased significantly when coming to the present day (Marshall, 2015; Yorulmaz & Celik, 2016; Sahin & Kavas, 2016; Demir, 2016; Ozgozlu & Altunay, 2016; Uzun & Ayik, 2016). Considering the vital role of educational institutions in the development and progress of countries, the increase in research examining the organizational commitment of employees in these institutions can be considered as a positive situation.

Literature Review

Organizational Commitment

The concept of commitment, expressed as being loyal, being connected with respect and love (TDK Dictionary) creates synergy for the combination of individuals who meet for a common purpose in both the act and thought level (Cihangiroglu, 2009, p. 5). Commitment is the attitude and obligations that one takes to a thought, to a person, to what one thinks is important. For these reasons, commitment is highly important compared to other emotions (Mercan, 2006, p. 10-11). In this context, the sense of commitment of the individual is not only about themselves, but also about the organization. The commitment and success of people working in an organization must be assessed together.

Actions and emotions must be taken into consideration within the organization to increase the level of commitment (Koybası et al., 2017). The organizational commitment, expressed as an increase in the will to remain in the organization structure, represents the behavior of the individual within the organization structure within the framework of behavior and business relations in organizations. Organizational commitment, effort to achieve the organization's objectives, loyalty and belonging to the organization can be expressed as unwilling to leave the organization for various reasons. Organizational commitment expresses the basic psychology that the individual feels in front of the organization, and is a sign of the adoption of organizational features with all its own. (Abdurrezzak & Ustuner, 2020, p. 156).

It has been determined that organizational commitment has a tight relationship with the consequences of leaving the job, wanting to leave, absenteeism, etc. Organizational commitment reveals the level of employee engagement with a specific organization and three elements are identified. The first is the acceptance of the organization's values and goals and the strong belief that has been developed toward them. The second is to be prepared to do more than expected for the benefit of the organization, and the last is a strong desire to continue to be a member of the

organization. The strongest indicator of organizational commitment is the close parallelism of the value, purpose and vision of the employee with the value purpose and vision of the organization. The employee who is not in an organization that has adopted values and objectives cannot demonstrate a commitment to that organization. The employee's expectations and the lack of distance between the organization's offerings or the excess distance are the key determinant of the level of organizational commitment (Cihangiroglu, 2009, p. 13).

Different perspectives in organizational engagement have led to different classifications. Different researchers have suggested different classifications based on different criteria. For example, Huang (2000) divided commitment theory into four groups: Sociological, adaptive, moral and attitudinal types of commitment. The main reason for the behavioral and behavioral approach of organizational engagement is that social psychologists and organizational behaviorists have different approaches. While organizational behaviorists focused on attitudes, social psychologists conducted their work on behavioral commitment (Mowday et al., 1984).

Organizational Commitment Approaches

Behavioral commitment approaches. Behavioral commitment approaches have been considered by social psychologists as transforming commitment into behaviors (İnce & Gül, 2005). Behavioral commitment is the behavior of employees, such as being willing to leave or stay in the organization and not being absent, depending on the result of the shopping, by entering into a shopping relationship with their organization. Therefore, behavioral commitment is also referred to as self-interested commitment or continuance commitment in the literature. In behavioral commitment approaches, people feel dependent to engage in an activity and behave in this direction. These displayed behaviors are also the result of commitment to the activity (Bakan, 2018, p. 62).

Attitudinal commitment. Attitude is defined as a trend that drives the person to certain behaviors. Attitudes tend to constantly engage in objects, events, people or activities. Attitudinal commitment is seen in the case that individuals identify with their organizations, the individual's goals and values, and the organization's goals and values are close and parallel. When individuals identify the goals and values of the organization with their own goals and values, they also want to maintain the organization's membership. Attitudinal commitment can be defined as the power of the individual's participation in the organization and integration into the organization. According to researchers, attitudinal commitment emerges in different ways and can have different characteristics (Cihangiroglu, 2009).

Etzioni's organizational commitment classification. Etzioni (1975) defines the concept of organizational engagement as the compliance that individuals provide to these tasks in the tasks given within the organization. He has collected loyalty under three topics as moral commitment, self-interested commitment and forced (alienating) commitment (Newton & Shore, 1992; Balay, 2000):

-*Moral Commitment:* The organizational goals and the value of the work in the organization are done because the work is valued above all else. Moral intimacy or moral commitment ensures that organizational purpose, norm and values are internalized, and is a strong and positive orientation for the organization, based on the equalization. Therefore, moral commitment is a type of commitment that occurs when values and standards are internalized, when commitment to the organization is not influenced by reward or change. The objectives of the organization are based on internalization and authoritarianism of norms and values. Organizational commitment levels are also increasing when employees follow the useful goals of society.

- *Self-interested Commitment:* Self-interest commitment involving a shopping relationship is about self-loving tactics. It's about delivering yourself, delivering more responsibility, trying to make yourself look the best. The successful execution of the individual's self-responsibilities includes ways of acting in such a way that their manager is aware of their accomplishments. It is based on a mutual shopping relationship between employees and the organization. Employees are committed to the rewards they will receive in return for their contributions to their organizations. At the core of the interest, there is a growing shopping relationship between the member and organization, as is the type of commitment to the giant. The person is committed to doing what he has to do for the price he

receives. The member appears when he sees the organization in which he is involved as harmful or punitive.

– *Forced (Alienating) Commitment*: In this type of commitment that has the element of obligation, the loyalty of employees is not for their individual benefit, but because they believe that their actions are moral and accurate. It is based on the belief that the individual has an obligation to the organization, and that it is obligatory to remain in the organization. Necessity is based on moral feelings and virtue. It refers to the negative orientation of employees toward the organization, which occurs when behavior patterns are blocked and restricted. The employee is not psychologically committed to the organization, but continues to be a member.

Results of Organizational Commitment

Depending on the level of commitment, organizational commitment can have positive or negative consequences. It is stated by researchers that the strongest relationship with organizational commitment is among behavioral outcomes (Balay, 2000). In the literature, the levels of organizational commitment were classified as low organizational commitment, moderate (moderate) organizational commitment and high level of organizational commitment.

Results of low level organizational commitment. In addition to the lack of adopting and internalizing the organization, there are cases where the individual does not give sufficient dedication to the organization's objectives. In addition, it is seen that the individual has invested in his personal development. The lack of organizational affiliation makes him evaluate alternative business opportunities and is therefore known to focus on individual development, not on the organization's goals. Because the desire to move to another organization at the first opportunity is strong in this type of employee. Low loyalty to the organization results in objections, rumors and complaints, and therefore is harmful to the organization, damaging organizational trust, causing income losses (Randall, 1987, p. 461-462).

Results of moderate (moderate) organizational commitment. This level of commitment is also referred to as "norm commitment" or "formative commitment". When it comes to commitment at this level, the employee considers staying in the organization a task and thinks it is right to show commitment to the organization and is sufficient for the employee. It is a condition that the individual organization accepts its goals, strategies and policies, but does not feel fully belonging to the organization. The employee who has this level of commitment believes that he should remain in the organization because he feels that he needs it very badly, or because he feels that the organization he is connected to is in need of him (Bayram, 2005; Koc, 2009).

Results of high levels of organizational commitment. It is the level of commitment in which the individual adopts and accepts all the values, goals and objectives of the organization and dedicates herself to the organization. Employees at this level of commitment work very hard to achieve organizational goals and objectives. They are interested in his business even after hours to ensure his organization is successful. In addition, there is a strong desire to remain in the organization (Ak & Sezer, 2017).

Organizational Commitment at School

Education organizations have a fundamental role for the country to move forward, to develop, to increase the level of prosperity, to reach a level of life where the public can be successful, modern and happy. In addition to the organizational structure, management style and organizational commitment levels, these roles can be carried out as required, there is a very important place in which employees perform their tasks as required (Shaw & Reyes, 1992, p. 297).

Employees are more likely to work for organization success than normal values, but they can be explained by their commitment to the organization. Without anticipation or expectation of financial benefits, the ability to make self-sacrifice only to ensure that the organization in which it works is successful is an indication that the organization and the employee are becoming identical. The employee, who has adopted the goals, goals and values of the organization, has been working harder than expected for the organization, is also in a strong need for further organization membership.

Therefore, organizational commitment acts as a psychological bond that allows parallel activity with the interests of the organization.

Teachers with a high level of organizational commitment are deeply adopting and in compliance with school norms, goals, rules, and are working hard to make the most of their profession. In order to be useful to their students, they love the institution in which they work and think they are permanent in their schools (Isıktas, 2016; Demirtas, 2010). Staff with high organizational loyalty pay attention to punctuality and attend their classes on time. Communication with students is continuous and interaction is strong. They also take care of students voluntarily during extracurricular hours (Korkmaz, 201, p. 119). Teachers with a high level of organizational commitment are also known to be in a working system that is compatible with school management. In the success of the school, these teachers are making an important effort. For these reasons, the overall purpose of this study is to determine the type and level of organizational engagement according to the opinion of classroom teachers. In addition, this research aims to see how the organizational commitment of classroom teachers varies according to demographic variables (age, gender, occupational seniority, educational status). For this purpose, the answers to the following questions are sought:

1. What are the opinions of primary school teachers about the level of organizational commitment?
2. Do primary school teachers' views on organizational commitment differ significantly according to gender, age, occupational seniority, educational status?

Method

This is a survey research one of the quantitative research designs. The screening model is a research model that explains what happened today or what happened in the past. The run cannot be controlled and a new variable cannot be introduced into the environment. The study cannot be controlled, and a new variable cannot be included in the environment. The survey model is to scan across the population, where there are many elements, across the universe, or on a group of samples from the universe to get to the judgment of the universe (Sonmez & Alacapinar, 2019). In this study, the survey model was selected to determine the opinions of classroom teachers on organizational engagement.

Population and Sample

The study universe of the research is composed of 674 primary school teachers in Efeler district of Aydın province in the 2021-2022 academic year, who are serving in the public primary schools of the Ministry of National Education. The data is collected through the sample selected by proportional stratified sampling, as it was stated in the abstract., as it is not possible in time, labor and material terms to reach all of the study population. Based on the sample size 95% confidence level, 300 class teachers were sampled using the proportional stratified sampling method.

Stratified sampling is called selecting and taking the number of people calculated from them after dividing them into layers according to their specific properties in the population. It is important to note the representation of the people on the plates. If not, the sampling error has been made (Sonmez & Alacapinar, 2019). The number of classroom teachers who served in official primary schools in the Efeler district has been included in the sampling by proportionately representing their schools. Demographics of teachers who have been sampling are shown in Table 1.

Table 1.

Demographics of teachers who have been sampling

Variable		Frequency	Percent
Gender	Female	180	60,0
	Male	120	40,0
Age	20-30 age	12	4,0
	31-40 age	90	30,0
	41-50 age	115	38,3
	51-65 age	83	27,7
Occupational Seniority	1-10 year	18	6,0
	11-20 year	100	33,3
	21-30 year	130	43,3
	31-40 year	52	17,3
Educational Status	University	275	91,7
	Master's degree	25	8,3
TOTAL		300	100

Data Collection Tool and Data Analysis

In this study, the "Organizational Commitment Scale" developed by Penley and Gould (1988) and adapted to Turkish by Ergun and Celik (2019) was used as the data collection tool. In order to achieve the number of samples targeted within the scope of the research, a total of 360 scales have been distributed to classroom teachers in 28 primary schools outside village schools in Efeler. Only 311 scales were taken back, 11 sloppy and incompletely filled scales were removed and a total of 300 scales were used.

SPSS 16.0 software package was used for data analysis. Frequency and percentage distributions were calculated to determine descriptive statistics for those sampled with a personal information form. The values of the Kolmogorov-Smirnov test have been observed in the analysis of the data, which determines the normality of the distribution in deciding which parametric or non-parametric tests to be performed. The overall Organizational Commitment score was (K-s) - $z = 0.10$ $p = 0.02$) and moral commitment (K-s) - $z = 0.16$ $p = 0.00$), forced commitment (K-s) - $z = 0.21$ $p = 0.00$), self-interested commitment (K-s) - $z = 0.06$ $p = 0.00$) are used from non-parametric Mann Whitney-U tests and Cruscil Wallis tests as they do not show normal distribution. In order to interpret the findings, the discontinuous data in the scales were turned into continuous data by dividing the number of intervals by the number of options. For this purpose, the four intervals in the scales were divided into five, which is the number of options, and the result obtained was added to the lowest value, 1.00, and new values were obtained. The 0.80 number obtained was added to 1.00 and the range 1.00-1.80 was "very low", the range 1.81-2.60 "low", the range 2.61-3.40 "medium", the range 3.41-4.20 "high", and the range 4.21-5.00 "very high" interpreted as.

Validity and reliability

The Organizational Commitment Scale consists of 3 dimensions and 15 items. Of these dimensions, "Moral Commitment" is from 5 items (3rd, 6th, 9th, 12th. 15. items), "Forced Commitment" from 5 items (2nd, 5th, 8th, 11th, 14th. items), "Self-interested Commitment" from 5 items (1st, 4th, 7th, 10th, 13th. items).The items on the scale are prepared according to the 5-point Likert type scale. The options are "I disagree at all", "I agree with little", "I agree with Medium", "strongly agree" and "fully agree". As a result of the exploratory factor analysis, the scale consisted of three dimensions called "forced commitment, self-interested commitment and moral commitment" as in the original. These three dimensions describe 79.996% of the total variance. As a result of the exploratory and confirmatory factor analysis, it was found that the scale had construct validity. The Cronbach Alpha Coefficient, which gives the internal consistency of the materials that make up the scale, is 0.83 for the larger scale. The scale is divided by two halves by a semi-test reliability method, which is one of the methods for determining the internal plausibility coefficient of the scale. The relationship between the measurements obtained from the two halves was calculated with the Pearson

Moments Product Correlation Coefficient. The correlation coefficient between the two halves is $r = 0.95$ ($p = 0.00$). With these findings, the scale's plausibility coefficient is sufficient.

The coefficient of internal consistency of the Organizational Commitment Scale was 0.94 in the size of "moral commitment", 0.92 in the dimension of "forced commitment", 0.93 in the size of "self-interest" and 0.95 for the whole scale. In the study, the internal coefficient of the organizational Commitment Scale was 0.86 for the size of "moral commitment", 0.83 for the dimension of "forced commitment", 0.53 for the dimension of "self-interest" and 0.73 for the whole scale.

Ethical Information

The process of collecting data in the research coincided with the Covid-19 process that took place worldwide. In this period, restrictions have been made in many areas and these restrictions have affected public primary schools of the Ministry of National Education (MEB). The data was collected in November 2021-January 2022, when schools were open and education was conducted. Prior to the collection of the data, the Ethics Board has been granted permission.

In the study, the data was given face-to-face information about the "purpose and content of the research", "data collection tools" to the classroom teachers who were in public primary schools in Efeler district of Aydin province. The data is collected on a voluntary basis by "eliminating any hesitation about research and data collection tools". It has been emphasized that data collection tools do not include special information such as name, surname, school name, etc. It is specifically stated that the data obtained in the research will only be used for research purposes and that they will be informed.

Findings

Findings of the first sub-problem

The first sub-problem of the research is "primary school teachers' opinions on the level of organizational commitment". The views of classroom teachers on the level of organizational commitment and its sub-dimensions are given in Table 2.

Table 2.

Primary school teachers' opinions on the level of organizational commitment and sub-dimensions of organizational commitment

Organizational commitment and sub-dimensions are	n	\bar{x}	Ss	Meaning
Organizational commitment	300	2,92	0,35	Moderate
Moral commitment	300	3,70	1,09	High
Self-interested commitment	300	3,37	0,71	Moderate
Forced commitment	300	1,69	0,84	Too low

According to the opinion of the class teachers, the organizational commitment ($\bar{x}=2.92$) is "moderate" with arithmetic mean, moral commitment from its lower dimensions ($\bar{x}=3.70$) with arithmetic mean "high", self-interested commitment ($\bar{x}=3.37$) with arithmetic mean "medium" and forced commitment ($\bar{x}=1.69$) is "too low" with arithmetic mean.

Findings related to the second sub-problem

In the second sub-problem of the study, the "difference of the opinion of the primary school teachers on organizational commitment by gender, age, occupational seniority, educational status" was discussed.

Gender

Findings on the gender comparison of the opinions of the organizational commitment and sub-dimensions of the primary school teachers were given in Table 3.

Table 3.

Gender comparison of the opinions of primary school teachers on organizational commitment and sub-dimensions (Mann Whitney U Test)

Organizational commitment and sub-dimensions are	Gender	n	Mean rank	Row sum	U	p
Organizational commitment	Female	180	163,16	29368,50	8521,500	0,00
	Male	120	131,51	15781,50		
Moral commitment	Female	180	154,62	27832,00	10058,000	0,31
	Male	120	144,32	17318,00		
Forced commitment	Female	180	150,65	27117,50	10772,500	0,96
	Male	120	150,27	18032,50		
Self-interested commitment	Female	180	163,48	29427,00	8463,000	0,00
	Male	120	131,03	15723,00		

The opinions of the primary school teachers on organizational commitment differ statistically in the overall organizational commitment (U=8521.500, p:0.00) according to gender and in the self-interest commitment (U=8463.000, p:0.00). However, there is no statistically significant difference in moral commitment and forced commitment based on gender variability. The entire organizational commitment and self-interest commitment of female primary school teachers is higher than male primary school teachers.

Age

The findings of comparisons of the opinions of the organizational commitment and sub-dimensions of the primary school teachers are given in Table 4.

Table 4.

Age-based comparisons of primary school teachers' opinions on organizational commitment and sub-dimensions (Kruskal-Wallis Test)

Organizational commitment and sub-dimensions are	Age	n	Mean rank	Sd	Chi-Square	P
Organizational commitment	20-30 age	12	133,71	3	3,065	0,38
	31-40 age	90	150,24			
	41-50 age	115	160,02			
	51-65 age	83	140,01			
Moral commitment	20-30 age	12	81,08	3	25,270	0,00
	31-40 age	90	126,44			
	41-50 age	115	154,57			
	51-65 age	83	180,99			
Forced commitment	20-30 age	12	204,00	3	20,111	0,00
	31-40 age	90	173,78			
	41-50 age	115	145,47			
	51-65 age	83	124,49			
Self-interested commitment	20-30 age	12	143,75	3	8,855	0,03
	31-40 age	90	159,36			
	41-50 age	115	161,16			
	51-65 age	83	127,10			

The opinions of primary school teachers on organizational commitment do not differ by age. However, moral commitment (Chi-Square=25.270, p:0.00), forced commitment (Chi-Square=20.111, p:0.00), and a statistically significant difference in self-interested commitment (Chi-Square=8.855, p:0.03).

The Mann Whitney U Test has been performed to determine which age groups differ in the opinions of primary school teachers on "moral commitment". The results of the test are shown in Table 5 below.

Table 5.

Mann Whitney U Test Results showing difference between the opinions of primary school teachers on "moral commitment".

Age	n	Mean rank	Row sum	U	P	Difference	Groups that are different
20-30 age (1)	12	36,50	438,00	360,000	0,06	There's no difference	1-3/4
31-40 age (2)	90	53,50	4815,00				
20-30 age (1)	12	34,96	419,50	341,500	0,00	There's a difference	
41-50 age (3)	115	67,03	7708,50				
20-30 age (1)	12	22,62	271,50	193,500	0,00	There's a difference	
51-65 age (4)	83	51,67	4288,50				
31-40 age (2)	90	92,26	8303,00	4208,000	0,02	There's a difference	2-3/4
41-50 age (3)	115	111,41	12812,00				
31-40 age (2)	90	71,69	6452,00	2357,000	0,00	There's a difference	
51-65 age (4)	83	103,60	8599,00				
41-50 age (3)	115	92,13	10594,50	3924,500	0,03	There's a difference	3-4
51-65 age (4)	83	109,72	9106,50				

According to the results of the Mann Whitney U Test, there is a statistically significant difference among the opinions of primary school teachers regarding "moral commitment" by age. According to the opinions of classroom teachers, the lowest moral commitment was found in teachers aged 20-30, and the highest moral commitment was found in teachers aged 51-65.

The Mann Whitney U-Test was performed to determine the age of the difference between the opinions of primary school teachers on "forced commitment". The results of the test are shown in Table 6 below.

Table 6.

Mann Whitney U Test Results that show the difference between “age” and the opinions of primary school teachers on “forced commitment”.

Age	n	Mean rank	Row sum	U	P	Difference	Groups that are different
20-30 age (1)	12	61,88	742,50	415,500	0,19	There's no difference	1-3/4
31-40 age (2)	90	50,12	4510,50				
20-30 age (1)	12	85,62	1027,50	430,500	0,02	There's a difference	
41-50 age (3)	115	61,74	7100,50				
20-30 age (1)	12	69,50	834,00	240,000	0,00	There's a difference	
51-65 age (4)	83	44,89	3726,00				
31-40 age (2)	90	114,02	10261,50	4183,500	0,01	There's a difference	2-3/4
41-50 age (3)	115	94,38	10853,50				
31-40 age (2)	90	100,65	9058,50	2506,500	0,00	There's a difference	
51-65 age (4)	83	72,20	5992,50				
41-50 age (3)	115	105,34	12114,50	4100,500	0,07	There's no difference	
51-65 age (4)	83	91,40	7586,50				

According to the results of the Mann Whitney U Test, there is a statistically significant difference among the opinions of primary school teachers on “forced commitment” in relation to age. According to the study findings, the level of forced commitment is at the highest level of teachers in the 20-30-year-old group, and the teachers in the 41-year-olds and older age group at the lowest.

The Mann Whitney U Test has been performed to determine which age groups the primary school teachers' opinions on "self-interested commitment" differ between. The results of the test are shown in Table 7 below.

Table 7.

Mann Whitney U Test Results that show the difference between the "age" and the opinions of primary school teachers on “self-interested commitment”.

Age	n	Mean rank	Row sum	U	P	Difference	Groups that are different
20-30 age (1)	12	47,00	564,00	486,000	0,57	There's no difference	
31-40 age (2)	90	52,10	4689,00				
20-30 age (1)	12	57,92	695,00	617,000	0,54	There's no difference	
41-50 age (3)	115	64,63	7433,00				
20-30 age (1)	12	51,83	622,00	452,000	0,60	There's no difference	
51-65 age (4)	83	47,45	3938,00				
31-40 age (2)	90	101,98	9178,00	5083,000	0,82	There's no difference	2-4
41-50 age (3)	115	103,80	11937,00				
31-40 age (2)	90	96,28	8665,00	2900,000	0,01	There's a difference	
51-65 age (4)	83	76,94	6386,00				
41-50 age (3)	115	108,73	12503,50	3711,500	0,00	There's a difference	3-4
51-65 age (4)	83	86,72	7197,50				

According to the results of the Mann Whitney U Test, there is a statistically significant difference among the opinions of primary school teachers regarding "self-interested commitment" by age. Research findings have concluded that the level of self-interest commitment is at the highest level of teachers aged 41-50 years.

Occupational seniority

Findings on the comparison of the opinions of the primary school teachers on organizational commitment and sub-dimensions in relation to the occupational seniority are provided in Table 8.

Table 8.

Comparison of the opinions of primary school teachers on organizational commitment and sub-dimensions according to occupational seniority. (Kruskal-Wallis Test)

Organizational commitment and sub-dimensions are	Occupational seniority	n	Mean rank	Sd	Chi-Square	P	Difference
Organizational commitment	1-10 year	18	127,86	3	5,367	0,14	There's no difference
	11-20 year	100	154,71				
	21-30 year	130	158,43				
	31-40 year	52	130,40				
Moral commitment	1-10 year	18	101,78	3	24,446	0,00	There's a difference
	11-20 year	100	125,48				
	21-30 year	130	163,37				
	31-40 year	52	183,31				
Forced commitment	1-10 year	18	174,94	3	17,769	0,00	There's a difference
	11-20 year	100	173,48				
	21-30 year	130	142,24				
	31-40 year	52	118,51				
Self-interested commitment	1-10 year	18	156,39	3	11,064	0,01	There's a difference
	11-20 year	100	163,74				
	21-30 year	130	153,46				
	31-40 year	52	115,61				

The opinions of the primary school teachers on organizational commitment in accordance with occupational seniority do not differ significantly in the entire organizational commitment. However, there is a statistically significant difference in moral commitment (Chi-Square=24.446, p:0.00), forced commitment (Chi-Square=17.769, p:0.00) and self-interested commitment (Chi-Square=11.064, p:0.01).

The Mann Whitney U Test was performed to determine which occupational seniority ranges differ in the opinions of the primary school teachers on "moral commitment". The results of the test are shown in Table 5 below.

Table 9.

Mann Whitney U Test Results showing the difference in the opinion of the primary school teachers on "moral commitment" according to the "occupational seniority" variable

Occupational seniority	N	Mean rank	Row sum	U	P	Difference	Groups that are different
1-10 year (1)	18	50,78	914,00	743,000	0,23	There's no difference	1-3/4
11-20 year (2)	100	61,07	6107,00				
1-10 year (1)	18	47,17	849,00	678,000	0,00	There's a difference	
21-30 year (3)	130	78,28	10177,00				
1-10 year (1)	18	22,83	411,00	240,000	0,00	There's a difference	
31-40 year (4)	52	39,88	2074,00				
11-20 year (2)	100	98,30	9829,50	4779,500	0,00	There's a difference	2-3/4
21-30 year (3)	130	128,73	16735,50				
11-20 year (2)	100	67,12	6712,00	1662,000	0,00	There's a difference	
31-40 year (4)	52	94,54	4916,00				
21-30 year (3)	130	87,35	11355,00	2840,000	0,09	There's no difference	
31-40 year (4)	52	101,88	5298,00				

According to the results of the Mann Whitney U Test, there is a statistically significant difference among the opinions of primary school teachers regarding "moral commitment" according to the occupational seniority. According to the opinions of classroom teachers, the lowest moral commitment was found in teachers with a occupational seniority of 1-10 years, and the highest moral commitment was found in teachers with a occupational seniority of 31-40 years.

The Mann Whitney U-Test was performed to determine which occupational seniority ranges the difference in primary school teachers' opinions on "forced commitment" is being conducted. The results of the test are shown in Table 10 below.

Table 10.

Mann Whitney U Test Results showing difference between the "occupational seniority" opinions of the primary school teachers

Occupational seniority	N	Mean rank	Row sum	U	P	Difference	Groups that are different
1-10 year (1)	18	60,83	1095,00	876,000	0,85	There's no difference	
11-20 year (2)	100	59,26	5926,00				
1-10 year (1)	18	88,17	1587,00	924,000	0,13	There's no difference	
21-30 year (3)	130	72,61	9439,00				
1-10 year (1)	18	44,94	809,00	298,000	0,01	There's a difference	1-4
31-40 year (4)	52	32,23	1676,00				
11-20 year (2)	100	129,41	12941,00	5109,000	0,00	There's a difference	2-3/4
21-30 year (3)	130	104,80	13624,00				
11-20 year (2)	100	85,81	8580,50	1669,500	0,00	There's a difference	
31-40 year (4)	52	58,61	3047,50				
21-30 year (3)	130	95,83	12458,00	2817,000	0,06	There's no difference	
31-40 year (4)	52	80,67	4195,00				

According to the results of the Mann Whitney U Test, there is a statistically significant difference among the opinions of primary school teachers regarding “forced commitment” in relation to occupational seniority. According to the opinions of the primary school teachers, the lowest forced commitment was found in the teachers with a occupational seniority between 31-40 years, and the highest forced commitment was found in the teachers with a occupational seniority of 1-10 years.

The Mann Whitney U Test has been performed to determine which age groups differ in the opinions of primary school teachers on "self-interested commitment". The results of the test are shown in Table 5 below.

Table 11.

Mann Whitney U Test Results showing the difference in the opinion of primary school teachers regarding “self-interested commitment” according to the “occupational seniority” variable.

Occupational seniority	n	Mean rank	Row sum	U	P	Difference	Groups that are different
1-10 year (1)	18	57,36	1032,50	861,500	0,77	There's no difference	
11-20 year (2)	100	59,89	5988,50				
1-10 year (1)	18	75,67	1362,00	1149,000	0,90	There's no difference	
21-30 year (3)	130	74,34	9664,00				
1-10 year (1)	18	42,36	762,50	344,500	0,09	There's no difference	
31-40 year (4)	52	33,13	1722,50				
11-20 year (2)	100	119,82	11981,50	6068,500	0,38	There's no difference	
21-30 year (3)	130	112,18	14583,50				
11-20 year (2)	100	85,04	8504,00	1746,000	0,00	There's a difference	2-4
31-40 year (4)	52	60,08	3124,00				
21-30 year (3)	130	97,94	12732,00	2543,000	0,00	There's a difference	3-4
31-40 year (4)	52	75,40	3921,00				

According to the results of the Mann Whitney U Test, there is a statistically significant difference among the opinions of primary school teachers regarding " self-interested commitment" according to my occupational seniority. According to the research findings, the highest level of self-interested commitment was found in teachers with occupational seniority for between 11-20 years.

Educational status

Findings on the comparison of the opinions of primary school teachers on organizational commitment and sub-dimensions based on the educational status are provided in Table 12.

Table 12.

Comparison of classroom teachers' opinions on organizational commitment and sub-dimensions based on educational status (Mann Whitney U Test)

Organizational commitment and sub-dimensions are	Educational Status	n	Mean rank	Row sum	U	p	Meaning
Organizational commitment	Licence	275	148,94	40958,50	3008,500	0,30	There's no difference
	Master's Degree	25	167,66	4191,50			
Moral commitment	Licence	275	152,78	42013,50	2811,500	0,13	There's no difference
	Master's Degree	25	125,46	3136,50			
Forced commitment	License	275	148,24	40765,00	2815,000	0,12	There's no difference
	Master's Degree	25	175,40	4385,00			
Self-interested commitment	License	275	147,52	40567,50	2617,500	0,04	There's a difference
	Master's Degree	25	183,30	4582,50			

According to the educational status of the primary school teachers, their views on organizational commitment differ status in the self-interested commitment (Chi-Square=2617.500, p:0.04). However, the education status does not differ statistically in organizational commitment, moral commitment and forced commitment. It has been concluded that the level of self-interested commitment of the primary school teachers who have completed their master's degree has been higher.

Discussion, Results and Suggestions

In the first problem of the study, primary school teachers' opinions on the level of organizational commitment were discussed. The study concluded that the level of organizational commitment is "medium" and the level of moral commitment is "high" according to the opinion of the class teachers. The level of self-interested commitment has also been determined at "medium" and forced commitment "very low" level. In the study of literature, the organizational commitment is moderate (Akin & Orman, 2015; Atik & Ustuner, 2014; Coban & Demirtas, 2011; Saleem & Sağır, 2020), there are studies in which the size moral commitment is high (Abdurrezzak & Ustuner, 2020; Ergun, 2017). This finding matches the findings of similar studies. The high moral commitment of teachers may be due to the emotional dimension of the teaching profession. This is very beneficial for the development of the school and students.

In the second problem of the study, the opinions of primary school teachers on organizational commitment were examined according to gender, age, occupational seniority and educational status. There is a difference in gender among the opinions of primary school teachers on organizational commitment. Although there is no statistically significant difference in the sub-dimensions of moral commitment and forced commitment, there is statistically significant difference in the entire organizational commitment and subdimensional self-interested commitment. It was concluded that the level of organizational commitment and self-interested commitment of female class teachers was higher than male teachers. Similar research found that female teachers have higher organizational commitment than male teachers (Sethi, 2018), higher levels of female teachers' self-interested commitment than male teachers (Ergun, 2017). These findings are consistent with the study's findings. However, some studies found that male teachers have higher organizational commitment levels than female teachers (Goren & Yengin Sarpkaya, 2014; Tulunay Ates & Buluc, 2018).

Among the opinions of primary school teachers regarding organizational engagement, there is no significant difference in the whole of organizational commitment by age. The same result was also achieved in the study Karatas and Güles (2010) to determine the relationship between organizational commitment and work satisfaction of teachers working in primary schools. In other related research (Abdurrezzak & Ustuner, 2020; Atik & Ustuner, 2014; Bayraktar & Uzunpinar, 2020; Mathieu &

Zajac, 1990; Memisoglu & Kalay, 2017; Salami, 2008) the lack of age difference in the whole of organizational commitment supports the discovery of research.

Among the opinions of the primary school teachers on organizational commitment is a statistically significant difference in the sub-dimensions of "moral commitment" and "forced commitment" of organizational commitment according to the age. In the study, which focuses on the relationship between the organizational commitment of teachers and the job saturation by Ocal (2020), the moral commitment of teachers differs according to age variability (Kursunoğlu & Tanriogen, 2010; Meyer & Allen, 1991). In this study, according to the opinions of primary school teachers, the lowest level of moral commitment was found in teachers between the ages of 20-30, and the highest level of moral commitment was found in teachers between the ages of 51-65 (Ocal, 2020). This may be caused by older teachers completing their organizational socialization process, when compared to their younger colleagues. The completion of the organizational socialization process is seen as possible with the acceptance and continuation of the organization's culture (Lunenburg & Ornstein, 1996: 64).

In the study, it was determined that teachers' forced commitment levels differ depending on age variation. In the study of the relationship between teacher's work performance and organizational commitment by Yavuzkilic (2020), the difference between age variable and teacher's forced commitment supports the finding of research. According to the study findings, the level of forced commitment is at the highest level of 20-30 year-old teachers, and the lowest level of forced commitment is at the age group of 41 and above. The level of commitment to individuals' organizations is increasing in cases where behavior patterns are blocked and restricted (Newton & Shore, 1992; Balay, 2000). Younger teachers are more enthusiastic than others, and limiting these behaviors in a school environment can lead to a high level of forced commitment.

As with the research, there are studies (Ocal, 2020) in which teachers differ between self-interested commitment levels according to age variable. Research findings have concluded that the level of self-interested commitment is at the highest level of teachers aged 41-50 years. In the study where Ocal (2020) researches the relationship between the organizational commitment of teachers and the job saturation, the highest level of self-interested commitment is among teachers in the 41-50-year-old group. The two research finds are one-on-one. At the core of the self-interested commitment, there is a growing shopping relationship between the member and organization (Newton & Shore, 1992; Balay, 2000). Accordingly, the level of self-interested commitment may be higher than other age groups, as teachers in the 41 to 50 age group are approaching their retirement age but have to work because they have not yet retired.

Among the opinions of primary school teachers regarding organizational commitment, there is no significant difference in the entire organizational commitment to the occupational seniority. With related research in the field articles (Abdurrezzak & Ustuner, 2020; Atik & Ustuner, 2014; Basyigit, 2009; Memisoglu & Kalay, 2017) this finding is supported. However, there is statistically significant difference in the sub-dimensions of "moral commitment" "self-interested commitment" and "forced commitment" according to the occupational seniority. According to the occupational seniority, the lowest average in the sub-dimension of moral commitment is in teachers with occupational seniority between 1-10 years and the highest average is in 31-40 years; it has been concluded that there is no significant statistical difference between teachers with occupational seniority in 31-40 years and teachers with occupational seniority from 21-30 years. According to the opinion of the primary school teachers, the lowest level of moral commitment was found in teachers with occupational seniority between 1-10 years and the highest level of moral commitment was in teachers with vocational seniority in 31-40 years. Yavuzkilic (2020) also conducted a study to investigate the relationship between teachers' work performance and organizational commitment, and it was determined that the moral commitment level of teachers with occupational seniority was higher than other teachers for 21 years and more occupational seniority. This finding is consistent with the research findings. The level of moral commitment increases when values and standards are internalized, when commitment to the organization is not affected by reward or change (Newton & Shore, 1992). Teachers with more than 21 years of occupational seniority can have a higher level of moral commitment due to acceptance of corporate standards and values.

In the study, the findings of a significant difference in the lower dimension of the level of forced commitment according to the occupational seniority variable are similar to the study in which the relationship between work performance and commitment to the organization is examined by Ozutku (2008). However, there are studies that have been concluded that there is no significant difference between the occupational seniority variable and the level of forced commitment (Yavuzkiliç, 2020). According to the opinion of the primary school teachers, the lowest level of commitment was found in teachers with occupational seniority between 31-40 years, and the highest level of commitment was in teachers with occupational seniority between 1-10 years. Forced commitment is based on the belief that the individual has an obligation to the organization, so that they feel obligated to remain in the organization. Teachers who are close to retirement and have a higher occupational seniority may think they're serving enough. Because of this, they don't feel obligated to stay in their institutions, their forced commitment levels may be lower than other teachers.

In the study, according to the occupational seniority variant, the difference was determined between the levels of self-interested commitment of teachers. However, in similar research (Ergun, 2017; Ocal, 2020; Yavuzkiliç, 2020) in contrast, there was no meaningful relationship between the occupational seniority variable and the level of self-interested commitment. These differences between the results of the research work suggest that more extensive work must be carried out to interpret the relationship between the self-interested organizational commitment and the occupational seniority variable. There is an obligation to continue at the core of the self-interested commitment.

In the study, which discussed the organizational commitment levels of primary school teachers by Kursunoglu and Tanriogen (2010), the result of increased continued commitment as emotional exhaustion increases. According to the research findings, the level of self-interested commitment of teachers with professional seniority between 11-20 years is higher than other teachers. According to the findings of similar studies (Ocal, 2020; Ustuner, 2009), teachers with 10-20 years between of occupational seniority have a high level of self-interested commitment. Teachers begin to experience burnout as a result of their expectations from the profession do not match with the realities in the first years of their career, and although they want to leave the profession, they cannot leave due to their increasing responsibilities and financial concerns. For these reasons, it may be considered that the levels of self-interested commitment have increased.

There is a significant difference in the education status among the opinions of the primary school teachers on organizational commitment. There is no statistically significant difference in the whole of organizational commitment, in the moral commitment and the forced commitment. However, there is a statistically significant difference in the self-interested commitment, and it has been concluded that the self-interested commitment of graduate class teachers is higher than the undergraduate teachers. In the studies of Basyigit (2009) and Ergun (2017), it was concluded that the level of self-interested commitment of masters graduate teachers is higher than those with undergraduate degrees. This finding supports the research. In the sub-dimension of self-interested commitment, there is self-love, self-presentation, conveying the demand for taking more responsibility, and showing oneself as the best possible (Newton & Shore, 1992). As the educational level of teachers increases, their expectations of being prominent and endearing themselves in their institutions increase, which may lead to higher levels of self-interested commitment.

According to the opinion of the classroom teachers, organizational commitment is "moderate". Qualitative research methods can be used to investigate the cause of this situation. Methods to increase teachers' organizational commitment can be revealed through qualitative research. Participation in decisions, reconciliation between organizational and individual values can be supported by managers to ensure that the organizational commitment of classroom teachers can be high. This study is with larger and different groups of examples (branch teachers, teachers who work in private education, etc.) it can be done. In addition, the relationship between organizational commitment and other variables (organizational culture, job satisfaction, organizational justice, etc.) can be investigated.

Limitations

This study is limited to official primary schools in Efeler district of Aydın province in 2021-2022 academic year. The sampling is limited to the views of the teachers received and the measuring tools used in the research process. And the fact that only class teachers were involved in the study is one of the limitations of this study.

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The Effect of Virtual Games on Learning English

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Abstract

The aim of this study is to get opinions on the effect of preferential use of English language in virtual games on individuals' learning English. In this study, in which the qualitative research method was used, case study was adopted from the qualitative research designs. The sample of the research consists of 8 students, 4 of whom live in Türkiye and 4 in Germany. Participants were determined according to the purposive sampling method. The interview technique was used in the research. A semi-structured interview form was used as a data collection tool developed by the researchers for the interviews. The codes and categories created from the answers were added to the study in terms of validity and reliability. Based on the statements created by the researchers with independent coding, the reliability of the study was calculated as 90% using the Miles and Huberman formula. The voluntary participation was taken into consideration. The participants' language options in the virtual games are "English", "German" and "Turkish" which are 3 of the codes determined in this research. It is thought that teaching foreign languages by integrating them into games will strengthen individuals' learning by increasing their interest in foreign languages.

Keywords: Virtual games, English language, Language option, English learning

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Introduction

Technology is a concept that individuals encounter frequently in daily life. With its most general and simple definition, technology is the things we use which make our lives easier according to Haber (2020), and according to Duygun (2004), it is the information necessary for the production of a good or service and the practice of this knowledge. There are many definitions of technology in the literature, such as the definitions of the two researchers. While technology has positive aspects such as making life easier, it also has negative aspects. Examples of these negative aspects can be given as prevention of socialization and isolation of individuals. Technology is a broad concept and encompasses many topics. Under the title of technology, many words can be collected such as goods, technological tools, architectural structures (Pekmez, Yılmaz, Alaçam Akşit, & Güler, 2018). In addition to these, the expression "virtual environment" can be given under the title of technology.

The virtual environment is an environment that can be used for many purposes such as obtaining information, entertainment and education. The virtual environment also greatly affects the life we live in (Korkmaz, Usta, & Kurt, 2014).

In this regard, items such as;

- Having environments according to the interests of the new generation that can attract the new generation,
- Provide easy access,
- Provide easy sharing opportunity, can be given as examples (Korkmaz, et al., 2014).

While the virtual environment contributes positively, it can also lead to inefficient use of time. The virtual environment includes mediums such as social media, websites, educational sites and virtual games. Virtual games offer individuals many features such as sound, image and so on. Virtual games are accepted as an entertainment element by individuals and continue to take place in the field of entertainment (Doğusoy & İnal, 2006).

While virtual games can affect the individual positively, they can also affect them negatively. The negative aspects of virtual games include psychological effects such as a-socialization of the individual, becoming introverted, wanting to play games all the time (being addicted); and physical effects such as posture disorder (hunchback), obesity, and sleep disturbance. On the other hand, positive features such as improving thinking skills, reducing stress, improving attention skills can be listed. In this study, the positive features of virtual games were emphasized and the relationship between virtual games and English learning was investigated.

Ceylaner and Yanpar Yelken (2017) took the opinions of secondary school students about teaching vocabulary with digital games in their study. As a result, he observed that more than half of the students expressed positive thoughts on this subject. At the same time, this study was determined as the most similar study to present study. The difference of the current study is that, students in both Germany and Türkiye were interviewed, and a general evaluation was made on the opinions of students living in both countries. In addition, current study was conducted with qualitative research methods, while Ceylaner and Yanpar Yelken (2017) did theirs with quantitative research methods.

Hassan (2020) conducted a research on how the use of game technique in secondary school students affects students' foreign language learning anxiety. As a result, it has been proved that the game technique has positive effects on this issue.

Bekdaş (2017) investigated the effect of games used in foreign language lessons on speaking ability. He stated that the use of games instead of traditional methods makes the lesson more fun, reduces the stress and the fear of making mistakes that occurs while speaking. Consequently, he concluded that using games in foreign language teaching contributed to the speaking skill

significantly. In the same context, according to Darfilal (2014/2015, p.14), games should be fun, appropriate for the age of the student and should not contain competition.

In his research, Gömlüksiz (2005) aimed to compare the effects of teaching games with traditional methods on student success in the teaching of "Simple Present Tense" and "Present Continuous Tense" in English. As a result, it was determined that the use of games in English teaching has many positive effects such as reinforcing the subject matters, creating a more enjoyable learning environment, and ensuring that the learned information is permanent.

Children first try to perceive the world through games and try to communicate with their peers using games (Ketterlinus, 2017). Games motivate children as well as teach while entertaining them (Uberman, 1998, p.20). In this context, Işık (2016) investigated the effects of teaching English vocabulary with educational games to 3rd grade students on academic achievement. As a result, he observed that the game technique had positive effects on English vocabulary teaching and academic success.

Virtual games, which have entered our lives with rapidly developing technological content and devices, have been called by different names such as "video games", "mobile games" and "computer games" (Kirriemuir, 2002). In their study, Donmuş and Gürol (2015) investigated the effect of educational virtual games on the retention and achievement of knowledge in English learning. As a result, it has been observed that the lessons taught with the traditional method are also effective, but the lessons supported by educational computer games are more efficient and educational computer games have a positive effect on learning English.

In their study, Çakır, Solak and Tan (2015) investigated how the use and application of augmented reality technology in the classroom environment affects the motivation and academic achievement of students in order to improve, activate and enrich the education and training environments. As a result, they have reached the conclusion that the use of augmented reality technology in the classroom environment is more efficient than the classical lessons and positively affects the course performance of the students.

Taş and Uğurlu (2019) aimed to investigate why social media and technology should be used in teaching and learning a new language and their effects on this situation. As a result, it has been stated that technology assistance can be provided to classical learning environments, but this may also have negative consequences, and that educational environments created by the teacher in language learning in technology-supported environments are of great importance.

Games with digital content also contain elements that support the development of the brain, such as helping learning, improving attention and visual perception (Bavelier, 2012). Gündoğdu and Kartal (2021) took the opinions of 7th grade students about teaching English vocabulary with taboo game in English lesson. As a result, they observed that the taboo game enabled the students to socialize, the students learned the words they did not know from their group friends, they could express themselves better in a foreign language, they thought that it made the words they learned more memorable, and they generally stated positive thoughts about this technique.

Parlak and Zengin (2007) investigated the effects of educational computer games on students' achievement and attitudes in learning English vocabulary. As a result, it has been determined that the web-based learning environment provides students with the opportunity of numerous attempts to learn regardless of time and place and provides a different learning environment than classical learning environments

The aim of this study is to get opinions on the effect of preferential use of English language in virtual games on individuals' learning English. In accordance with the purpose, the research problems were determined as follows;

1. Which language option do the participants use in virtual games?
2. What are the participants' thoughts on the use of the English language in virtual games and the effects of it on their learning of English Language?
3. What does the use of the English language in virtual games teach the participants?
4. How do the participants think that the use of the English language in virtual games affects their interest and success in English lessons?
5. How do the families of the participants approach to foreign language learning?

Method

Interviews were conducted with the individuals participating in the study outside of school hours. Before the interviews, the families and participants were informed, the participants were chosen from the volunteers, the written consent of the parents was obtained. During all interviews, families were with the participants.

Model of the Research

In the present study, qualitative research method was used. According to Yıldırım and Şimşek (2011), qualitative research is a method in which data collection tools such as interview, observation and document analysis are used. Case study, one of the qualitative research methods, was used in the current study. A case study is defined as in-depth description and examination of a system with boundaries (Merriam, 2013; cited by Subaşı & Okumuş, 2017).

Sample of the Research

The sample of this research is a total of 8 students, 4 of whom live in Mersin in Türkiye and 4 in Germany . Participants were determined according to the purposive sampling method. Purposeful sampling method is the detailed investigation of situations that are thought to have rich information (Duran & Kurt, 2019).

Data collection tool

In this study, the interview technique, which is one of the data collection methods, was used. A semi-structured interview form was used as a data collection tool by the researchers in the study. While preparing the interview form, the following steps were followed by the researchers:

Literature review and collection of basic information: In the first stage, previous studies related to the subject of the research which were conducted with the same technique, (interview technique) were examined. Important parts have been noted.

Creating the first draft of the semi-structured interview form: The first version of the semi-structured interview form was created by the researchers.

Obtaining expert opinions about the semi-structured interview form: The first draft of the interview form created by the researchers was sent to experts who are experienced in the subject in order to minimize the errors in the study and to gain academic value to the study. At this stage, the form includes 10 open-ended interview questions and questions about demographic characteristics.

Finalizing the semi-structured interview form according to expert opinions: The arrangements suggested by the experts in the field were made and the interview form was rearranged and the interview form was given its final form.

Determination of the participants: Purposive sampling method was used in determining the participants. Attention was paid to the participants' ability to express their opinions about the main problems. Gender and age factors are not among the limitations.

Conducting the interview: The interview was held virtually due to the Covid 19 pandemic conditions. 8 open-ended interview questions and questions with demographic characteristics were asked to the participants, and the answers were noted and documented.

Analysis of Data

In this section, the answers given by the participants were transcribed. Codes were created from the obtained data. Then these codes were turned into categories and themes. The obtained data were transferred to tables.

Credibility and Reliability

Codes, categories and themes created from the answers were added to the study in terms of validity and reliability. In addition, the voluntary participation of the participants in the study has an important place in this regard. In addition, direct quotations from the views of the participants increase the validity and reliability.

The reliability of the study was calculated with the formula of Consensus / (Agreement + Disagreement) x 100 (Miles & Huberman, 1994), in which similarity, called internal consistency, is conceptualized as consensus among coders, and the reliability was calculated as 90%. According to Yıldırım and Şimşek (2013), if the reliability value is 70%, it is sufficient for the study to be considered reliable.

Findings

In this section, tables were created from the data obtained from the opinions of the participants. Nicknames were given to each volunteer interviewer. Students in Germany: GS1, GS2, GS3, GS4. Students in Türkiye: TS1, TS2, TS3, TS4. Codes were created from the answers of the participants and these codes were marked in tables according to the participants.

Demographic characteristics

Demographic characteristics of the participants GS1, GS2, TS1, TS2, TS3, TS4 participants were female; GS3, GS4 participants were male. GS1, GS4, TS1, TS2, TS3, TS4 participants 11; GS3 participant 10; GS2 participant is 9 years old. GS4, TS1, TS2, TS3, TS4 participants were in 6th grade; GS1 participant is in the 5th grade; GS3 participant is in the 4th grade; GS2 participant continues to the 3rd grade. All the students from Germany are German citizens with Turkish background.

Table 1
Codes of the First Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
English	1		1	1	3	1	1			2	5
Turkish		1		1	2	1	1	1	1	4	6
German		1	1		2					0	2
To understand better	1				1			1		1	2
German is a mixed language	1				1					0	1
playmates	1				1					0	1
Improve the English language	1				1					0	1
to need	1				1					0	1
Native language Turkish					0	1				1	1
Living in Germany		1			1					0	1
Develop a foreign language			1	1	2					0	2
Enjoyable			1		1					0	1
Interesting			1		1					0	1
Wanting to learn better English				1	1					0	1
Learning new words				1	1					0	1
English language is the main language of the game					0	1	1			2	2
Not change					0	1				1	1
Better Turkish language option					0	1				1	1
Producers' choice					0		1			1	1
Not knowing other languages					0				1	1	1
The overall total					19					14	33

In Table 1, the codes created from the opinions of the participants about the language options they use in virtual games are given. Accordingly, the common code for students living in Germany has been determined as “English”. This code was used by 3 participants. In addition, the codes of "Develop a foreign language", "German" and "Turkish" were used by two participants. Other codes were used by only one participant. For students living in Türkiye, “Turkish” has been determined as a common code. This code was used by all 4 participants. In addition, the codes "English" and "English is the main language of the game" were used by two participants each. other codes were used by only one participant. In general, the common code is determined as "Turkish". The “English” code is also a common code used by the participants.

Table 2
Categories of the First Sub-Problem

Categories	Germany			Türkiye			Total	
	f	In group	In general	f	In group	In general	f	%
		%	%		%	%		
Language	7	36.84%	21.21%	7	50.00%	21.21%	14	42.42%
Understand	2	10.53%	6.06%	one	7.14%	3.03%	3	9.09%
Need	2	10.53%	6.06%	one	7.14%	3.03%	3	9.09%
Learn	2	10.53%	6.06%	0	0.00%	0.00%	2	6.06%
Negative thinking	0	0.00%	0.00%	2	14.29%	6.06%	2	6.06%
Develop	3	15.79%	9.09%	0	0.00%	0.00%	3	9.09%
Fun	3	15.79%	9.09%	0	0.00%	0.00%	3	9.09%
Main language	0	0.00%	0.00%	3	21.43%	9.09%	3	9.09%
Total	19	100.00%	57.58%	14	100.00%	42.42%	33	100.00%

The categories related to the language options used in virtual games are shown in Table 2. “Language” was the category with the highest rates, with 21.21% of respondents in Germany and also

21.21% in participants from Türkiye. On the other hand, while the categories of "Negative thinking and Main language" were not preferred by the participants in Germany, the "Learn, Develop and Fun" categories were not created by the participants in Türkiye. In this case, the categories created jointly by the participants were determined as "Language, Understand and need".

Table 3
Codes of the Second Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
Multiplayer	1	1			2					0	2
A language everyone knows	1		1		2					0	2
Different languages	1				1					0	1
Can't find a game-friend	1				1					0	1
An ubiquitous language		1			1					0	1
Common language			1		1	1			1	2	3
Helps to improve the English language				1	1					0	1
Improve english writing				1	1					0	1
Learn				1	1		1			1	2
Producers' choice					0	1				1	1
Good influence					0		1			1	1
General language					0			1	1	2	2
The overall total					11					7	18

According to the codes created from the opinions of the participants about the use of the English language in virtual games, the codes of "Multiplayer" and "A language known by everyone" were determined as common codes from the opinions of the participants living in Germany. According to the opinions of the participants in Türkiye, "Common language" and "General language" codes were determined as common codes. In general, the most used code by the participants was determined as the "Common language" code. In addition, the expressions "Multiplayer, A language everyone knows, Learning and General language" were also preferred by the participants.

Table 4
Categories of the Second Sub-Problem

		Germany			Türkiye			Total	
		In group		In general	In group		In general	f	%
		f	%	%	f	%	%		
Categories	Player	3	27.27%	16.67%	0	0.00%	0.00%	3	16.67%
	Language	3	27.27%	16.67%	4	57.14%	22.22%	7	38.89%
	Choice	2	18.18%	11.11%	2	28.57%	11.11%	4	22.22%
	Develop	3	27.27%	16.67%	1	14.29%	5.56%	4	22.22%
	Total	11	100.00%	61.11%	7	100.00%	38.89%	18	100.00%

When the categories of the second sub-problem are examined, the expressions of "Player", "Choice", "Develop" with a rate of 16,67% for the participants in Germany, and the expression "Language" with the rate of 22.22% for the participants in Türkiye were the most common category. While the expression "Player" was preferred only by the German participants, the other expressions were used by both groups. The expression "preference" was used by both participant groups with a rate of 11,11% while the expression of "development" was found with a rate of 5.56% in participants from Türkiye and 16.67% in participants from Germany.

Table 5
Codes of the Third Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
Teaching	1	1	1	1	4					0	4
Yes		1	1		2			1		1	3
Thinking					0	1		1	1	3	3
Not knowing German very well	1				1					0	1
Develop	1				1					0	1
Knowing English	1				1					0	1
Further develop	1				1					0	1
Learning environment	1				1					0	1
Search	1				1		1			1	2
Keep in mind	1				1					0	1
Everyday words	1				1					0	1
To remember		1			1					0	1
Different words			1		1					0	1
Learn			1	1	2					0	2
Use dictionary			1		1					0	1
Vocabulary expansion			1		1					0	1
English lesson at school				1	1					0	1
To help				1	1					0	1
Subconscious					0	1				1	1
To reconcile					0	1				1	1
Turkish meanings of the words					0		1			1	1
Learning new words					0				1	1	1
Little children					0			1		1	1
Easy to learn					0			1		1	1
The overall total					22					11	33

According to the codes created from the opinions of the participants about the effect of the use of the English language in virtual games on the learning of the English language, the common code from the opinions of the students living in Germany was determined as "Teaching". This code was used by 4 participants. For the participants in Türkiye, the expressions "Yes" and "Thinking" were formed by three people each. The expressions "Search" and "Learn" were also created by two participants each. The codes produced jointly by all participants were determined as "Yes" and "Thinking". In this sub-problem, the codes were used 33 times in total, 22 for participants in Germany and 11 for participants in Türkiye.

Table 6
Categories of the Third Sub-Problem

Categories	Germany			Türkiye			Total	
	In group		In general	In group		In general	f	%
	f	%	%	f	%	%		
Positive thinking	3	13.64%	9.09%	4	36.36%	12,12%	7	21.21%
To go forward	2	9.09%	6.06%	1	9.09%	3.03%	3	9.09%
Vocabulary	4	18.18%	12,12%	0	0.00%	0.00%	4	12,12%
Knowledge	3	13.64%	9.09%	0	0.00%	0.00%	3	9.09%
Search	1	4.55%	3.03%	2	18.18%	6.06%	3	9.09%
Learning	7	31.82%	21.21%	2	18.18%	6.06%	9	27.27%
To understand	2	9.09%	6.06%	2	18.18%	6.06%	4	12,12%
Total	22	100.00%	66.67%	11	100.00%	33.33%	33	100.00%

When we look at Table 6, where the categories obtained from the participants regarding the effect of the use of the English language in virtual games on English language learning, the most preferred categories were "Learning" with 21.21% in Germany participants, and "Positive thinking" with 12.12% in participants of Türkiye. "Vocabulary" and "Knowledge" categories were preferred only by participants in Germany. The categories of "Search", "Learning" and "To understand" were created by participants from Türkiye with a rate of 6.06%. In the general distribution, the category of "Learning" was in the first place with a rate of 27.27%, the category of "Positive thinking" was in the second place with a rate of 21.21%, and the categories of "Vocabulary" and "To understand" took the third place with a rate of 12,12%.

Table 7
Codes of the Fourth Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
Daily expressions	1		1	1	3	1	1			2	5
Search	1				1				1	1	2
Keep in mind	1				1					0	1
Introduce yourself		1			1					0	1
Making correct sentences			1		1					0	1
Increase in self-confidence			1		1					0	1
To talk				1	1					0	1
Real life				1	1					0	1
Frequently used commands in the game	1		1		2					0	2
English equivalents of the words					0	1				1	1
New words				1	1	1	1		1	2	3
Foods					0	1		1		1	1
Names					0	1		1		1	1
To accept					0	1		1		1	1
To refuse					0	1		1		1	1
The overall total					13					10	23

According to the codes created from the opinions of the participants about what the use of the English language in virtual games taught them, the common code from the opinions of the participants living in Germany was determined as "Daily expressions". 3 participants used this code. According to the opinions of the participants in Türkiye, "daily expressions" and "New words" codes were determined as common codes. These codes were created by two participants each. In general terms, the "daily expressions" code was used the most by all participants. A total of 5 participants used this code. "New words" code was the second most used code. This code was also used by 3 participants. "Daily expressions, Search and New words" codes were created jointly by all participants.

Table 8
Categories of the Fourth Sub-Problem

	Germany				Türkiye				Total	
	In group		In general		In group		In general		f	%
	f	%	%	f	%	%	f			
Life	4	30.77%	17.39%	4	40.00%	17.39%	8	34.78%		
Search	2	15.38%	8.70%	3	30.00%	13,04%	5	21.74%		
Keep in mind	1	7.69%	4.35%	1	10.00%	4.35%	2	8.70%		
Self-Confidence	4	30.77%	17.39%	0	0.00%	0.00%	4	17.39%		
The game	2	15.38%	8.70%	2	20.00%	8.70%	4	17.39%		
Total	13	100.00%	56.52%	10	100.00%	43.48%	23	100.00%		

Table 8 exhibits the categories belonging to the fourth sub-problem. While the expression "Life" was determined jointly by the participants of Germany and Türkiye with a rate of 17.39%, it is seen that the expression of "Self-confidence" was preferred only by the participants of Germany with a rate of 17.39%. "Research" was the second common category used by all participants with a rate of 21.74%, and the category of "Keep in mind" was determined as the least preferred expression with a rate of 8.70%. In the fourth sub-problem, a total of 5 categories were created.

Table 9
Codes of the Fifth Sub-Problem

	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
Using	1			1	2			1		1	3
Joke in English	1				1					0	1
Sometimes		1	1		2	1				1	3
Occasionally					0		1			1	1
English Lesson					0	1				1	1
Using certain words					0				1	1	1
The overall total					5					5	10

When the codes created from the opinions of the participants about using/not using the words they learned in daily life were examined, the common codes from the opinions of the participants living in Germany were determined as "Using" and "Sometimes". Participants in Türkiye, on the other hand, could not find a common code and gave different answers. However, in terms of meaning, it can be said that the codes "Sometimes" and "Occasionally" mean almost the same, that these codes are the common code. In general, the participants mostly used the code "Sometimes". The code "Jokes in English" was preferred only by the participants in Türkiye, and the codes "Occasionally, English lesson and Using certain words" were preferred only by the participants of Germany. In the fifth sub-problem, the codes were repeated 10 times, 5 for participants in Germany and 5 for participants in Türkiye.

Table 10
Categories of the Fifth Sub-Problem

	Germany			Türkiye			Total	
	In group		In general	In group		In general	f	%
	f	%	%	f	%	%		
Using	2	40.00%	20.00%	1	20.00%	10.00%	3	30.00%
Time	2	40.00%	20.00%	2	40.00%	20.00%	4	40.00%
English	1	20.00%	10.00%	1	20.00%	10.00%	2	20.00%
Word	0	0.00%	0.00%	1	20.00%	10.00%	1	10.00%
Total	5	100.00%	50.00%	5	100.00%	50.00%	10	100.00%

The categories belonging to the fifth sub-problem in Table 10 are related to the participants' use of the words they learned in daily life. When Table 10 is examined, the expression "Time" given with a rate of 20.00% is a common category for both groups, while the category of "Using" with a rate of 20.00% was preferred by the participants from Germany. The expression "Word" was used only by participants from Türkiye with a rate of 10.00%. A total of 4 categories were created for the fifth sub-problem, and three of them were accepted as common.

Table 11
Codes of the Sixth Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
To ensure	1				1						1
Learn by heart	1				1						1
To remember	1				1						1
Confront	1				1						1
Sometimes		1			1						1
Fluency of speech			1		1						1
Using correct sentences			1		1						1
Increasing self-confidence			1		1						1
Using what has been learned in the English lesson				1	1						1
To be successful				1	1						1
To influence positively					0	1			1	2	2
Using words					0		1			1	1
Keep in mind					0		1			1	1
To influence Learning English words					0			1	1	2	2
English Lesson					0				1	1	1
Love					0				1	1	1
Increasing desire to learn English					0				1	1	1
The overall total					10					10	20

When the codes created from the views of the participants on how the use of the English language in virtual games affect their interest and success in English lessons in the Table 11, a common code could not be determined from the opinions of the students in Germany. However, there are codes that are similar in meaning. According to the opinions of the participants living in Türkiye, the code of “Learning English words” was determined as the common code. In general, only the "Learning English words" code was used by 2 participants. Only one participant each used the other codes. In the sixth sub-problem, the codes were used a total of 20 times, 10 for participants in Germany and 10 for participants in Türkiye.

Table 12
Categories of the Sixth Sub-Problem

categories	Germany			Türkiye			Total	
	In group		In general	In group		In general	f	%
	f	%	%	f	%	%		
Memorize	2	20.00%	10.00%	1	10.00%	5.00%	3	15.00%
Self-confidence	2	20.00%	10.00%	2	20.00%	10.00%	4	20.00%
Using Time	2	20.00%	10.00%	1	10.00%	5.00%	3	15.00%
Request	2	20.00%	10.00%	1	0.00%	0.00%	2	10.00%
Success	0	0.00%	0.00%	3	30.00%	15.00%	3	15.00%
	2	20.00%	10.00%	3	30.00%	15.00%	5	25.00%
Total	10	100.00%	50.00%	10	100.00%	50.00%	20	%

The categories related to how the use of the English language in virtual games affect their interest and success in English lessons are given in Table 12. 10.00% of the participants from Germany and 15.00% of the participants of Türkiye stated the expression “Success”; it is seen that the

expression “Self-confidence” stands out as the most preferred common category for the participants of Germany and Türkiye with a rate of 10.00%. In addition, while the expression "Time" was preferred by 10,00% only by the participants in Germany; the expression “Request”, with a rate of 15.00%, was preferred only by the participants in Türkiye. While the codes obtained from the participants from Germany are equal to 10.00%, the categories obtained from the participants of Türkiye vary in proportion. A total of 6 categories were created in the sixth sub-problem, four of which were accepted as common.

Table 13
Codes of the Seventh Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
Yes	1	1	1	1	4	1				1	5
To continue					0		1			1	1
Learning German first	1				1					0	1
Foreign language story books			1		1					0	1
Alien cartoons			1		1					0	1
Learning					0	1			1	2	2
Wanting					0	1			1	2	2
Common language					0	1				1	1
No					0			1		1	1
The overall total					7					8	15

Considering the codes created from the opinions of the participants about their families encouraging/not encouraging them to learn a foreign language, the “Yes” code from the opinions of the students living in Germany was determined as the common code. According to the opinions of the participants in Türkiye, the codes of “Learning” and “Wanting” were determined as common codes. When the overall table is evaluated, only the "Yes" statement was created jointly by all the participants.

Table 14
Categories of the Seventh Sub-Problem

	Germany			Türkiye			Total		
	In group		In general	In group		In general	f	%	
	f	%	%	f	%	%			
categories	Request	1	14.29%	6.67%	3	37,50%	20.00%	4	26.67%
	Positive thinking	4	57.14%	26.67%	1	12.50%	6.67%	5	33.33%
	Negative thinking	0	0.00%	0.00%	1	12.50%	6.67%	1	6.67%
	Learning	2	28.57%	13.33%	3	37,50%	20.00%	5	33.33%
	Total	7	100.00%	46.67%	8	100.00%	53.33%	15	100.00%

Considering the categories created by the participants' opinions about their families encouraging/not encouraging them to learn a foreign language, the German participants mostly preferred the "Positive thinking" category with 26.67%, while the Turkish participants preferred the "Learning" category with 20.00%. While it is seen that another category preferred by the Turkish participants with a rate of 20.00% is “Wanting”; It is also seen that the category of “Negative thinking” is preferred only by the participants in Türkiye. The second priority category of students participating from Germany was the expression "Learning" with a rate of 13,33%. In this table, more categories were created with the rate of 53.33% from the students participating from Türkiye. 4 categories were obtained according to the participants opinions.

Table 15
Codes of the Eighth Sub-Problem

Codes	GS1	GS2	GS3	GS4	GST	TS1	TS2	TS3	TS4	TST	Total
Make happy	1			1	2					0	2
Learning foreign language	1				1					0	1
Not playing a lot of games		1			1					0	1
Make the video more instructive		1			1					0	1
Think positively			1		1				1	1	2
Participate with pleasure			1		1					0	1
Speak English faster			1		1					0	1
English word				1	1					0	1
Daily expression				1	1					0	1
Learn				1	1		1			1	2
Affect well					0	1	1			2	2
Not thinking					0			1		1	1
Supporting new language learning					0				1	1	1
The overall total					11					6	17

In Table 15, the codes, which were determined as the eighth sub-problem, were formed from the opinions of the participants about how their families think that their use of the English language in virtual games affects their interest and success in English lessons. When we look at the table, the common code from the views of the students in Germany is "Make happy", and the code from the views of the students in Türkiye is "Affect well". In general, each of the "Thinking positive" and "Learning" codes were used by two participant groups, while the other codes were used by only one participant. In this table, it was determined that a total of 13 codes were created.

Table 16
Categories of the Eighth Sub-Problem

categories	Germany			Türkiye			Total	
	In group		In general	In group		In general	f	%
	f	%	%	f	%	%		
Emotion	3	27,27%	17.65%	0	0.00%	0.00%	3	17.65%
Positive thinking	2	18,18%	11.76%	4	66.67%	23.53%	6	35.29%
Instructive	2	18,18%	11.76%	1	16.67%	5.88%	3	17.65%
To speak	3	27,27%	17.65%	0	0.00%	0.00%	3	17.65%
Learn	1	9,09%	5.88%	0	0.00%	0.00%	1	5.88%
Negative thinking	0	0,00%	0.00%	1	16.67%	5.88%	1	5.88%
Total	11	100,00%	64.71%	6	100.00%	35.29%	17	100.00%

When the categories created from the opinions of the participants about how their families think that their use of the English language in virtual games affects their interest and success in English lessons, it is seen that a total of 6 categories were created. When Table 16 is examined, it is seen that participants from Türkiye mostly preferred the "Positive thinking" category with a rate of 23.53%. The categories that stood out among the participants from Germany were "Emotion" and "Speak" with 17.65%. When we look at the table in general, "Positive thinking" and "Instructive" expressions were determined as common categories by the participant groups.

Discussion, Conclusion and Recommendations

When the categories created from the opinions of the participants about the language options they use in virtual games are examined, the "Language" category came to the fore the most among the

opinions obtained from the students living in Germany. When the discourses of the participants are examined in the context of the category, it can be interpreted that most of the participants in Germany use English as a language option in the games. In addition, the codes of "developing a foreign language", "German" and "Turkish" were used by two participants each. This can be interpreted as the students use German and Turkish language options in addition to the English option in the games and improve their foreign language in the games. For students living in Türkiye, "Turkish" has been determined as a common code. This code was used by 4 participants. In addition to these codes, "English" and "English being the main language of the game" codes were used by two participants each. In these situations, students living in Türkiye use the Turkish language in the games because their mother tongue is Turkish. However, since the main language of the game is English, there are also participants who use the English language option in the games. In general, the "Turkish" code is the most used code by the participants. In addition, the English code was also widely used. This situation can be interpreted as that the participants generally use the Turkish language, but there are also participants who use the English language. Ceylaner and Yanpar Yelken (2017) stated in their study, partially similar to this, that the participants mostly use the English language in virtual games.

The categories created from the opinions of the participants about the use of the English language in virtual games are given. Accordingly, "player", "preference" and "development" codes were determined as common categories from the opinions of the participants living in Germany. This can be interpreted as the fact that English is a language known to everyone, allowing this language to be used in virtual games, and the participants use the English language to communicate with the players in multiplayer games. Ceylaner and Yanpar Yelken (2017) stated in their study similarly that the participants used speech programs in the games. According to the opinions of the participants in Türkiye, "common language" and "general language" codes were determined as common codes. This situation can be deduced that the participants think that the use of the English language in the games is due to the fact that the English language is a common language, that is, used worldwide. In general, the most used code by the participants used the "common language" code. This can be interpreted as the participants think that English language is used in the games since it is the common language.

The categories created from the opinions of the participants about the effect of using the English language in virtual games on English language learning are given. Accordingly, the common category from the opinions of the students living in Germany was determined as "Learning". In addition, it is seen that the categories of "Vocabulary" and "Knowing" are used only by German participants. These situations can be interpreted as the English language in virtual games teaches the participants the English language/helps them learn English. From the opinions of the participants in Türkiye, the "Positive thinking" category was determined as the common category. This situation can be interpreted as the participants think that the use of English language in virtual games has an effect on English language learning. In general, the "Teaching" code is the most used code by the participants. This can be interpreted as the use of English language in virtual games taught/helped the participants in teaching English. Similarly, Hassan (2020), Bekdaş (2017), Donmuş and Gürol (2015) stated in their studies that the use of educational games in foreign language teaching has positive effects.

When the categories created from the opinions of the participants about what the use of the English language in virtual games taught them were considered, "Life" was determined as a common category among the participants from Germany and Türkiye. From the opinions of the participants in Türkiye, the category of "Self-confidence" became the most prominent category. When the participants' discourses on these situations are examined, it can be concluded that daily expressions in English the participants learn from the games contribute to their English vocabulary learning. In general, the "Life" category was used the most. In this case, it can be interpreted that the participants learned daily expressions in English from the games. As another result, Ceylaner and Yanpar Yelken (2017) stated in their study that the participants mostly remembered the noun word group in the relationship between digital games and English.

The categories created from the codes related to the participants' use/not use of the words they learned in daily life were included. From the codes obtained from the opinions of the participants living in Germany and Türkiye, the categories of "time" and "use" were determined as common

categories. This situation can be interpreted as that some of the participants use the words they learned in daily life and some of the participants sometimes use the words they learned. When the codes and opinions of the participants in the "time" category were analyzed, it was seen that the participants in general mostly used the "sometimes" code. This situation can be interpreted as the participants generally use the words they have learned sometimes in daily life. Partly similar to this, Bekdaş (2017) concluded in his study that the games used in foreign language teaching greatly contribute to speaking skills.

When the categories created from the views of the participants on how the use of the English language in virtual games affect their interest and success in English lessons, a common code could not be determined in the views of the students in Germany. This situation can be interpreted as students living in Germany presented different opinions. From the opinions of the participants living in Türkiye, the code of "learning English words" was determined as the common code. This can be interpreted as the use of the English language in virtual games contributes to the learning of new English words by the participants. Donmuş and Gürol (2015) stated in their study that educational virtual games have positive contributions to learning English and they found similar results to the results from the present study. In general, the "learning English words" code can be evaluated as the most preferred expression by the participants in digital games and learning English.

Considering the categories created from the views of the participants about their families encouraging/not encouraging them to learn a foreign language, the "yes" category from the opinions of the students living in Germany, and the "learning" and "wanting" categories from the opinions of the participants in Türkiye were determined as the common categories. Generally, the participants used the "yes" code the most. These findings can be interpreted as students' families encouraging them to learn English and wanting them to learn English, which is apparently one of the effects that the participants using the English language option in Virtual games. Similarly, Engin (2006) stated in his study that social support from the family is one of the most important factors for an individual to be successful in learning a second language.

The codes created from the opinions of the participants about how their families think that their use of the English language in virtual games affects their interest and success in English lessons are given. Accordingly, the "positive thinking" category was determined depending on the codes obtained from the opinions of the participants in Türkiye. Adhering to the participant's views on this situation, it can be interpreted as the use of English language in virtual games positively affects the course performance of the students and this situation makes the students' families happy. From the codes of the participants in Germany, "emotion" and "speaking" were determined as categories. In general, the codes of "thinking positively", "learning" and "affecting well" were used by the participants. This can be interpreted as the participants using different codes but expressing positive thoughts.

Virtual games have both positive and negative features. In this study, the effect of using the English language in the language option in virtual games, which can be brought in addition to the positive features of virtual games, on learning English was investigated. From this perspective:

- Using the English language option in virtual games
- Recognizing that the English language is frequently used in daily life
- Careful and effective use of time in digital games
- Developing digital games in which more English language is used, as digital games played by choosing the English language contribute to the learning of English in the lessons at school,
- Families supporting their children during their English learning and raising awareness of families on this issue,
- Emphasizing the positive effects of virtual games in learning English.

This study unearthed findings pointing the listed situations above and it is thought to make important contributions to the individuals' learning English. It can also provoke further studies in the field of learning English through Virtual Games. We suggest further research on the language option (in virtual games) preferences of individuals with different mother tongues.

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A review on tenses in Turkish children's narratives between the ages of 3 and 4

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Abstract

In this study, the acquisition of tenses in Turkish-speaking children between the ages of 3 and 4 is examined. Particular attention is given to the anchored tenses in narratives for kids, the connection between the ability to follow a plot structure and the propensity to maintain a dominant tense, and the emergence of the suffixes "-mİş" and "-(I)yor" with age. The study intends to examine the degree to which the relationship between tense and narrative structure is apparent in young children's language use and compare its findings with those of Aksu-Koç (1994) on 3 and 5-year-olds. Data were gathered through elicitation tasks and narrative retellings, and their accuracy and frequency of tense usage were analyzed. According to the findings, the children in this study exhibit tense acquisition patterns that are comparable to those seen in earlier studies, with a preference for present tense and present progressive markers. The study also demonstrates a relationship between narrative structure and tense usage, indicating that children's growing comprehension of narrative coherence may affect how they utilize tense and aspect markers. Last but not least, the results provide some credence to Özcan's (2007) assertion that the use of "-mİş" declines with age while the use of "-(I)yor" rises, however more studies are required to corroborate this pattern. These findings have consequences for how we see the linguistic growth of Turkish-speaking children.

Keywords: Language acquisition, tenses, anchoring tense, Turkish learning

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Introduction

It is considered that all people have the intrinsic ability to learn the languages they are exposed to from birth. According to Chomsky (1965), this ability is explained by the existence of a "language acquisition device" (LAD), which is innate. The majority of linguists base their explanations of language learning on this widely recognized assumption from the literature.

Infants are said to be noun-biased during the early stages of language learning and learn nouns first, regardless of the society they were born into. Guasti (2004) questions how young children can connect a word with an item, and he presents two theories to address this. The word-to-world mapping technique is one of them, and hypothesis development and testing procedure is the other. Children in the first one make an assumption about the meaning of a word based on the co-occurrence of the word with either its referent or an act of pointing. The second viewpoint asserts that kids match spoken words with what they hear when they hear them.

Verbs are acquired only after nouns and for a while they are the minority in children. Guasti (2004) explains the relative differences between the ages at which nouns and verbs are acquired and the methods by which they are taught. It is said that children go through a vocabulary growth spurt between the ages of 20 and 24 months. They go on to construct longer, more complicated sentences after this vocabulary boom. Guasti (2004) hypothesized that this link could be the evidence that kids have access to syntactic information as a new source of knowledge for learning word meaning.

Verb learning is another challenge in language acquisition. According to Hirsh-Pasek and Golinkoff (2006), adults as well as children struggle with verb mapping. Guasti (2004) questions how young infants comprehend verb meaning and suggests that the concept of syntactic cueing of verb meaning may provide a solution. In accordance with this view, children interpret verbs by examining the syntactic context in which they are used. According to Guasti (2004), this concept is quite similar to the word-to-world mapping technique used to acquire nouns. Guasti (2004) refers to it as the "sentence-to-world mapping procedure" because of this similarity. Syntactic bootstrapping hypothesis is another theory pertaining to verb acquisition (Guasti, 2004; Göksun, Küntay & Naigles, 2008). This theory holds that kids make use of a verb's grammatical features and use them as a hint to determine what they imply. Turkish children are said to use both syntactic and morphological frames to learn verb tenses, demonstrating that this process is also present in Turkish (Göksun et al., 2008).

Literature Review

According to Küntay and Slobin (1999), "the degree of morphological productivity of Turkish preschool children goes far beyond what has been reported for child speech in Indo-European languages" (p. 156). Additionally, Turkish language morphology is agglutinating and very regular, with only a few deviations to its general principles, according to Aksu-Koç and Slobin (1985). Accordingly, they assert that Turkish children may construct highly elaborate strings of verb affixes even at a young age and that despite being brief and simple, children's utterances are rarely grammatical or incomplete (as reported by Slobin and Aksu, 1982). According to Aksu-Koç, Ögel-Balaban, and Alp (2009), Turkish children begin to learn the fundamental grammatical principles of their language around the age of three. On the other hand, Pinker (1998) observes that even in their third year, children acquiring English as a first language overregularize irregular verbs. Ekmekçi (1982) further points out that verbal inflections are noticeable in a Turkish child's early language development because in Turkish, inflections are typically used to indicate semantic conceptions. Turkish children between the ages of 2 and 3 learn to employ inflections to build present and past phrases relatively freely and without error, according to Aksu-Koç (1994). Similarly, Ekmekçi (1982) asserts that suffixation is the fundamental morphological method in Turkish and that one can create single-word phrases that are most likely articulated by multiple words in other languages.

According to Aksu-Koç and Slobin (1985), "verbal affixes mark voice, negation, modality, aspect, tense, person, and number, with person and number affixes bearing much similarity with nominal suffixes for the same functions" (p. 840). The following affixations are permitted for verbs in

Turkish, according to their report (p. 841): "stem-reflexive-reciprocal-causative-passive-potential-negative-necessitative-tense-conditional-question-person-number."

This method demonstrates how several particles attached to the verb represent various ideas (Aksu-Koç & Slobin, 1985). According to Aksu-Koç (1994), "the Turkish tense-aspect-modality system can be characterized in terms of two main dimensions, one temporal, Past-Nonpast, and one modal, Direct Experience-Indirect Experience" (p. 332). Slobin (2005) says that Turkish has two past tense morphemes that can be used to describe direct or indirect experience. According to Aksu-Koç (1994), one of these two forms must be selected when past occurrences are produced.

It should be emphasized that the suffix *-DI*, which might be read as di-past but is translated as D.PAST, denotes direct experience (Aksu-Koç et al., 2009). On the other hand, the suffix *-mIş* (Aksu-Koç et al., 2009) denotes indirect or nonwitnessed experience and might be interpreted as M.PAST referring to the *-mIş* -PAST (Aksu-Koç, 1994). According to Aksu-Koç et al. (2009), the *-mIş* inflection initially appears a few months after the *-DI* inflection. M.PAST is also the modality of folktales and traditional stories, according to Aksu-Koç (1994) and Aksu-Koç, Ögel-Balaban, and Alp (2009). Some narrators in their frog story research employ this "narrative modality" to talk about the entire story. These suffixes are referred to as evidentiary markers by Aksu-Koç et al. (2009), who claim that they "serve as indicators of the degree to which the speaker's consciousness has been involved in the experience" (p. 15).

The morpheme *-(I)yor* is glossed as progressive and is used as the present tense for both states and processes. Aksu-Koç (1994) analyzes this morpheme under the domain of aspect. According to Aksu-Koç (1994), they gloss *V + -(I)yor* as simply present and shorten it to PRES in their study. The current study makes use of the same acronyms for tenses as Aksu-Koç (1994) employed in their analysis of frog stories. In Aksu-Koç's study from 1994, the following abbreviations are also used to indicate different tenses: PROG- D.PAST ("düş-üyor-du"), PROG-M.PAST ("düş-üyor-muş"), and PERFECT-D.PAST ("düş-müş-tü"), which is used to produce a direct experience past perfect.

In addition, Aksu-Koç et al. (2009) claim that the morpheme *-(I)yor* denotes the speaker's use of linguistic reports from others to get information about a specific circumstance. Additionally, the morpheme *-ecek* is used to denote future tense, and *-(I)r* is used to denote denotic modality (Küntay & Slobin, 1999).

On the other hand, according to Özcan (2007), the age of three is a transitional stage at which time the preferred ending for narratives—*m(I)ş* or *-(I)yor*—has not yet been determined. Tense shifts are not systematic in the lower age groups, but they provide background information as people get older (Aksu-Koç, 1994).

Mean Length of Utterance (MLU) is a frequently used indicator of young children's language development in language development studies. According to Brown (1973, p. 107) it is "the average length of the child's utterances, in morphemes". MLU is derived by dividing the total number of morphemes by the total number of utterances in a child's language sample. MLU has been used in multiple research to evaluate language development in both generally developing children and in children with language disorders and has been shown to be a trustworthy indication of children's language development (Leonard, 2014; Rescorla, Ratner, & Cumenton, 2013).

Anchoring Tense

The basic past, present, and future tenses, known as anchoring tenses, lay the foundation for a language's more intricate tense and aspect systems (Aksu-Koç, 1994; Schieffelin & Ochs, 1986). They lay the groundwork for children to pick up increasingly complicated verb tenses and tense indicators as their language abilities advance (Slobin, 1991). Because they are frequently used and serve as the basis for other tense and aspect markers, the present tense marker *"-Ir/-Ar"* and the past tense marker *"-DI"* in Turkish, for instance, are sometimes thought of as anchoring tenses (Özcan, 2007). Researchers can learn more about children's general development of the tense and aspect systems in the target language by examining how they pick up these fundamental tense forms (Aksu-Koç, 1994).

As stated by Aksu-Koç (1994), selecting a consistently preferred tense is one criterion for narrative well-formedness. According to Aksu-Koç (1994), this is the tense utilized in at least 75% of the clauses in a narration. Only then can we discuss how well-formed a child's narration is, for example, if she consistently utilizes a particular tense, indicating that it is either an anchor or a dominating tense. Turkish children begin using all three of these inflections between the ages of 2 and 3 years old, according to Aksu-Koç (1994), who claims that in Turkish narratives, either the present, the D.PAST, or the M.PAST might be the anchor tense or the dominating tense. Furthermore, Aksu-Koç (1994) points out that children as young as 3 can utilize all three of these forms, although they are unable to do so with obvious discourse organizing purposes. On the other hand, according to Aksu-Koç (1994), by the age of 5, more than half of the children in their study can maintain a dominant tense and use tense/aspect transitions in a way that is adequate for conversation.

The distribution of Turkish texts from Aksu-Koç (1994)'s narrative story, "frog story," that are grounded in the present, the D.PAST, and the M.PAST is shown in Table 1 by age. However, since the current study primarily focuses on these age groups, only the data for 3- and 5-year-olds are presented here.

Table 1.

Frequency Distribution of Turkish Texts Anchored in PRESENT, D.PAST, and M.PAST, by Age (Aksu-Koç, 1994)

Age Group	Mean Age	Mean No. Clauses	Present	Dominant Tense		
				D.PAST	M.PAST	Mixed
3 yrs	3;11	35	3	-	1	6
5 yrs	5;5	52	4	-	3	3

According to Aksu-Koç's (1994) study, more than half of the 3-year-olds switch between the three tense forms rather than sticking to an anchor tense. PRESENT or M.PAST are preferred by the other 3-year-olds. On the other hand, more 5-year-olds than 3-year-olds keep an anchor tense, and only three of the kids in this age group employ multiple tenses.

Another crucial finding from Aksu-Koç's study from 1994 is that keeping a dominant tense is directly related to one's capacity to follow a narrative structure. According to Aksu-Koç (1994), the narrators who include the main plot in their stories are the ones who utilize an anchor tense.

In similar studies, different narratives are widely used. Ilgaz and Aksu-Koç (2005) define narratives as units of discourse that represent a sequence of temporal-causally related events, and states that narratives are one of the prominent research areas that provide valuable insight to aspects of early cognitive development.

According to Slobin (2005), frog stories are a common category of narratives that were first identified by Michael Bamberg (1987) as a research tool. He claims that the "frog story" has proven to be an incredibly useful tool that has been used in many languages and has contributed to a significant amount of research in the field. The frog story is a valuable resource for studying the chronological or geographical arrangements of events in narratives, according to Brown (2004). Ilgaz and Aksu-Koç (2005) note that narratives are important areas of study that offer insightful information on early cognitive development. Similar to this, Slobin (2005) argues that the frog story's effectiveness comes from its wordless presentation of an easily understandable plot that is sufficiently complicated to for in-depth examination of the temporal, causal, and spatial dimensions of occurrences. A well-known frog story was used in the current investigation as well. As a result, the following are the research questions:

1. To what extent are the findings from this study on 3 and 4-year-olds similar to the findings on 3 and 5-year-olds in Aksu-Koç (1994)'s study in terms of the anchored tenses in Turkish children's narratives?
2. Is the relation between the ability to follow a plot structure and the tendency to maintain a dominant tense evident in the children's narratives?

3. Does the emergence of *-mİş* decrease with increasing age and the emergence of *-(I)yor* increase with increasing age among 3-year-olds and 4-year-olds?

Method

Participants and Materials

There are two groups of participants and two researchers in the study. Both groups consist of 6 children. The first group is 3-year-olds; Cevdet (CEV), Çınar (CIN), Ömer (OME), Furkan (FUR), Oğuz (OGU) and Selçuk (SEL). The second group is 4-year-olds; Elif (ELI), Ahmet (AHM), Samet (SAM), Hasan (HAS), Talha (TAL) and Cahit (CAH). In this study, only the children's utterances are investigated.

The purpose of this study is to determine whether Turkish children at the ages of 3 and 4 maintain an anchor tense in their narratives, to what extent the findings about them are similar to those about 3 and 5 year olds in Aksu-Koç's study, and to what extent this tendency to maintain a dominant tense is related to their ability to follow the plot structure of the narrative. Testing the claim made by Özcan (2007)—according to which the emergence of *-mİş* diminishes with age and the emergence of *-(I)yor* increases—is another objective of this study. The current study also aims to determine whether this notion is corroborated by the 3- and 4-year-old participants.

At the preschoolers' kindergarten, the wordless picture book *Frog, Where Are You?* by Mayer (1969) was used to collect the data. The story's plot involves a little kid and his dog searching for the child's beloved frog after it escapes at the beginning and eventually finding it. The researcher invited each participant to first look at each page of the book after individually introducing the book to each subject in a private room. The researcher instructed the participants to create a tale once they had finished reading the book. The researcher audio-recorded their stories and later had them transcribed. Then, using the discourse analysis method, the occurrences of the tenses they utilized in their tales were qualitatively examined.

Procedure

To explore all instances of tense, aspect, and modality inflections, the data were analyzed. The total number of tense, aspect, and modality inflections for the children was counted separately and calculated to determine the frequency of occurrences for each child. The percentages of the most dominant tense and the other tenses were then compared to obtain data to determine whether the participants use an anchor tense and to determine the degree to which the results from this category are comparable to those from Aksu-Koç's (1994) study on three and five-year-olds. The second research question, whether there is a relationship between the propensity to maintain a dominating tense and the capacity to follow the plot structure, was finally addressed using the collected data.

Data Analysis

Two perspectives were used to analyze the study's data. First, the data were examined to determine whether participants' narratives contained an anchor tense. To determine whether there is a connection between the presence of an anchor tense and the capacity to follow the plot structure, the data were then once again examined. The boy's pet frog escapes, and the boy and his dog search for it before discovering it. This is how the story is structured.

Findings

Anchor Tenses in Children's Narratives

Table 2 summarizes the anchor tenses used in the narratives by the 3-year-olds and 4-year-olds. To answer the first research question, it can be concluded that there is no similarity between the findings from this category and those of Aksu-Koç's study (1994). This result might be related with

the relatively less number of the participants, or any other cognitive factors, which are not intended to address in the current study.

Table 2.

Frequency Distribution of Turkish Texts Anchored in PRESENT, D.PAST, and M.PAST, by Age

Age Group	Mean Age	Mean Clauses	No. Present	Dominant Tense		
				D.PAST	M.PAST	Mixed
3 yrs	3;5	42	-	-	3	3
4 yrs	4;5	33	-	-	2	4

In Table 2, the frequency distribution of Turkish Texts anchored in present, M.PAST and D.PAST are displayed. These findings are in accordance with Aksu-Koç's (1994) another finding. She says that in Turkish narratives, either present, or the D.PAST, or the M.PAST is the anchor tense or the dominant tense. In the current study, it reveals that all participants with only one exception used either of these tenses. A 3-year-old, CIN kept using Perfect D.PAST in his narrative more often than any other tense. Despite this, he used D.PAST as the second most frequent tense.

Extract 1. CIN is 3;9.

- *CIN: Aa bir gün, aa çocuk kalkmıştı
(Umm, one day, umm the boy had woken up.)
- *CIN: Köpek de onun yanına gelmişti
(The dog had gone to him.)
- *CIN: Aa, aa çocuk da köpekle kurbağaya baktılar
(Umm, the boy with the dog looked at the frog.)
- *CIN: Çocuk *uraar*-ken kurbağa dışarı çıkmıştı
(While the boy was sleeping, the frog had gone out.)
- *CIN: Ondan son[ra], kurbağa içinde yoktu; gitmişti
(After that, the frog was not in [the jar]; it had left.)
- *CIN: Çocuk da üzgündü aa ve aa yatağa öyle görünüyordu, köpek de ona baktı
(The boy was sad. Umm and umm, to the bed he was appearing so, the dog looked at him too.)
- *CIN: Çocuk bir gün kalktı, köpeğine, köpek de vardı, ona, onun çocuğu baktı
(The boy one day woke up, to his dog, the dog was present too, its/his boy looked at.)
- *CIN: Okula giderken arkadaşları da ona dalga geçmişti
(While he was going to school, his friends made fun to [of] him.)
- *CIN: Bir gün, köpek, çocuk dışarı çıkmıştı ve ağaçlara bakmıştı
(One day, the dog, the boy had gone out and looked at the trees.)
- *CIN: Bir gün çocuk içeri gitmişti
(One day, the boy had gone inside.)

The Relation between the Plot Structure and Anchor Tense

To answer the second and the third research questions the data were analyzed for each participant separately in Table 3.

Table 3.

Total Number of Clauses in Three Main Tenses, the Percentage of the Dominant Tense and the Absence/Presence of a Plot Structure

	3-year-olds						4-year-olds					
	CEV	CIN	OME	FUR	OGU	SEL	ELI	AHM	SAM	HAS	TAL	CAH
# of PRES clauses	-	2	3	1	2	1	15	-	-	6	-	12
# of D.PAST clauses	5	23	-	-	18	28	3	7	-	1	-	-
# of M.PAST clauses	46	-	36	24	1	13	15	28	29	7	32	28
% of the most dominant tense	90	48	86*	96*	60	56	45	68	100*	50	84*	70
Following the Plot structure?	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

Note: Ones with an asterisk symbol (*) used an anchor tense (According to the criteria by Aksu-Koç, 1994) while following the plot structure at the same time.

In Table 3, total number of clauses in three main tenses, the percentage of the dominant tense and the absence/presence of a plot structure are displayed. It was found out that 4 participants from the 3- year-olds and 5 participants from the 4-year-olds were able to follow the plot structure in the story. However, only 2 participants from each group, that is, a total of 4 participants used a dominant tense as they follow a plot structure; that is, a single tense in at least 75 % of their narratives (Aksu-Koç, 1994). In other words, 2 of the 3 participants who used a dominant tense in their narratives from 3-year-olds were able to follow the plot structure while all of the participants (N=2) who used a dominant tense in their narratives from 4-year-olds were able to follow the plot structure of the story. As an answer to the second research question, it might be concluded that the ability to follow a plot structure does not affect the tendency to maintain a dominant tense, however the tendency to maintain a dominant tense affects the ability to follow a plot structure in this context.

The only participant who did not follow the plot structure although he used M.PAST as an anchor tense is CEV, a 3-year-old.

Extract 2. CEV is 3;1.

*CEV: Bi köpek kurbağa içinde kalmış

(A dog has been stuck in a frog.)

*CEV: Bi çocuk kurbağanın içinde bunun içinde kalmış

(A boy is/was in a frog's inside; he has been stuck in it [the frog's].)

*CEV: Ve ona bakmış

(And it/he has looked at it/him.)

*CEV: Ve köpek bunun içinde bakmış

(And the dog has looked at [somewhere/something] inside this.)

*CEV: Bi çocuk uyumuş

(A boy has gone to sleep.)

*CEV: Ve kurbağa bunun içinde kalmış

(And the frog has been trapped/stuck in this.)

*CEV: Çıkmaya çalışıyomuş

(He was trying to climb up/get out.)

*CEV: Bi çocuk uyanmış, köpek de, bi kurbağa kaçmış

(A boy has woken up, the dog too, a frog has escaped)

*CEV: Aa, bunun içinde yok dedi-miş, bi de kaçmış

(Oh, he has-said it is not in this, and it has escaped.)

*CEV: *Havhav* da bunun içine bakmış, kaçmış
(*Havhav* [the dog] as well has looked into this; it has escaped.)

*CEV: Bunun içine ... bakmış
(It has looked into this.)

The last part of his narrative is as follows;

*CEV: Bi çocuk suyun içine bakmış
(A boy has looked into the water.)

*CEV: Ah, bi köpek balığı!
(Oh, a shark!)

*CEV: Bi çocuk ondan, aaa, suya düşmüş.
(A boy from [something/somewhere], oh, has fallen into the water.)

*CEV: Bi su aygırının, geyiğin dişi görünmüş
(A hippo's, a deer's teeth has appeared.)

*CEV: Onlar *mazurda* kalmış
(They got stuck.)

*CEV: Bi bundan, annesine bakmış
(From this, it has looked at its mother.)

*CEV: Ve ailesine *vrr* demiş
(And it has said *vrr* to its family.)

*CEV: Bi sevinmiş
(It cheered up.)

*CEV: saçına benzemiş
(It has looked like [someone or something's] hair.)

As is seen in Extract 2, the subject is unable to follow the plot structure of the story. This might be explained with that he is relatively younger than the other participants; 3;1 years of age.

The Decrease of *-mİş* with Increasing Age and the Increase of *-(I)yor* with Increasing Age

Özcan (2007) claims that the emergence of *-mİş* decreases with increasing age, and the emergence of *-(I)yor* increases with increasing age. The last question of the study addresses to this proposition. To answer the third research question, according to Table 3, it can be concluded that there is an observable increase in the use of *-(I)yor* with age. The present morpheme *-(I)yor* is used 7 times by 5 participants of the six 3-year-olds while it is used 33 times by 4 participants of the six 4-year-olds.

Extract 3. ELI is 4;1.

*ELI: Kurbağa bakıyor
(The frog is looking at [somewhere/something].)

*ELI: Köpek içinden izliyor
(The dog is watching from the inside [of something].)

*ELI: Burda çocuk uyuyor; kurbağa gidiyor; köpek de uyuyor
(Here the boy is sleeping; the frog is leaving; the dog is sleeping.)

*ELI: Köpek çocuğun üstüne çıkmış; duyuyorlar ki kurbağa yok
(The dog has gotten at the top of the boy; they are hearing that the frog is absent.)

*ELI: Ve kurbağa yukarı çıkmış, o da sandalyeden almak istiyor
(And the frog has gotten [risen] up, it wants to get [something] from the chair.)

*ELI: Köpeğin ağzında k... var; çocuk da kurbağa gel diyor
(In the dog's mouth, there is a k...; the boy is saying "frog come!".)

- *ELI: Düştü, köpek
(Has fallen, the dog.)
- *ELI: Kızdı
(It got angry.)
- *ELI: Üzüldü
(It got sad.)
- *ELI: Ağaçlar var tek, bi de arı, burda ayı var, köpek onları yakalıyor
(There are only trees, so is a bee; here is a bear; the dog is catching them.)
- *ELI: Çocuk da karıncalara bakıyor
(The boy is looking at the ants.)
- *ELI: Sincap çıkmış
(A squirrel has exited.)
- *ELI: *Bu*-da arılar var; köpek korkuyor, çocuk ağaca çıkmış, fare de burda
(There are bees in here; the dog is getting scared, the boy has climbed up the tree, the mouse is here too.)
- *ELI: Kuş ona bakıyor çocuğa, köpek koşuyor
(The bird is looking at him, the boy; the dog is running.)
- *ELI: Çocuk dağa tırmanıyor
(The boy is climbing up the mountain.)

This participant has used 15 present and 15 M.PAST clauses. She is the only one with this amount of PRES clauses, and it might be said that a relative increase of *-(I)yor* in 4-year-olds compared to the 3-year-olds is observable in her narrative too.

Table 3 also shows that there is a slight decrease in the emergence of *-mIş* by age with a total of 110 occurrences in 4-year-olds and a total of 120 occurrences in 3-year-olds. However, it can be concluded that this amount of occurrences are not enough to make a conclusion confidently on the decrease of *-mIş* by age.

Discussion, Conclusion and Recommendations

The use of narratives is a crucial and effective technique for gathering information regarding young children's early verbal development. The renowned story *Frog, where are you?* by Mayer (1969) served as another inspiration for the current investigation. Three research issues were investigated using the qualitative data from this study.

Turkish verbs with the *-mIş* inflection are said to be in the past tense. According to studies (e.g., Özsoy, 2000; Slobin, 1982), usually developing Turkish-speaking children begin to utilize the *-mIş* inflection at the age of 2;6 (i.e., 2 years and 6 months). Children could make mistakes when utilizing the *-mIş* inflection because it is not easy to learn. Some kids might overgeneralize the *-mIş* inflection and use it inappropriately (for instance, using "gördümüş" instead of "görmüş" for "he saw"), while others might completely omit it (for instance, using "gördü" instead of "gördüm" for "I saw").

Turkish verbs that express the present continuous tense utilize the *-(I)yor* inflection. According to studies (e.g. Aksu-Koç & Slobin, 1986; Özsoy, 2000), typically developing Turkish-speaking youngsters begin to utilize the *-(I)yor* inflection at the age of two and a half and six. However, just like the *-mIş* inflection, learning the *-(I)yor* inflection is not simple, and children may use it incorrectly. For instance, some children might completely ignore the inflection (for example, using "görü" instead of "görüyor" for "he is seeing"), while others might use it improperly (for instance, using "görüyordu" instead of "görüyorum" for "I am seeing").

In general, Turkish children's acquisition of the *-mIş* and *-(I)yor* inflections is a difficult process that involves both mastery of morphological norms and the capacity to use them in the right situations. Although children who are usually developing pick up these inflections at a young age, mistakes can be made when using them, and mistakes can linger even into later stages of language development.

These findings have significant ramifications for clinicians and educators who interact with children who speak Turkish because they emphasize the importance of targeted assessment and intervention to promote the development of these critical linguistic features.

The study found that, in terms of the anchored tenses in Turkish children's narratives, the findings from this study on 3 and 4-year-olds are not comparable to those from Aksu-Koç's (1994) study on 3 and 5-year-olds. The number of people who took part in this study may have an impact on the outcomes. The lack of MLU measures in the current investigation may be another factor contributing to the discrepancy between the outcomes of these two studies. It is possible that this outcome for this research question was caused by relying solely on the participants' physical ages without classifying them according to their MLU levels.

The capacity to follow a narrative structure might not have as big of an impact on the tendency to retain a dominant tense, but it may alter or trigger the tendency to do so. This is another argument made in this study. The study's final finding is that the development of *-(I)yor* grows with age; nevertheless, the data gathered in this study do not seem sufficient to conclusively state that the emergence of *-miş* diminishes with age in the participant target groups referring to understanding the potential of various age groups regarding the use of tenses. Therefore, similar studies can be conducted by taking children's mean length of utterances into consideration.

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Basics and Characteristics of Quantitative Research in Social Sciences: A Brief Guide for Educational Research

Burcu Altun¹

Abstract

The human-nature conflict is a phenomenon that has been going on since the first day of human history. It can be said that humans have to make sense of nature in order to survive and improve their living standards. Throughout history, people have tried many different ways to make sense of nature and its phenomena. Through mythology, religion, metaphysics and ultimately science, human beings have constantly searched for the truth. He has made a conscious effort to understand and analyze himself, other people, and the phenomena and events around him, and has followed appropriate paths. In this study, after briefly mentioning the human search for truth and then the positivist approach to finding the truth, quantitative research, which is a reflection of the positivist approach, and its characteristics will be discussed. Basic quantitative research designs will be classified and the role of quantitative research in educational research will be examined. Finally, the concerns of quantitative research will be emphasized.

Keywords: Positivism, qualitative research, educational research, social sciences.

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Introduction

Human beings have generally followed three ways to understand their environment and events. These are experience, reasoning, and research (Cohen, Manion & Morrison, 2007: 5). These are the ways people use to search for and reach the truth. Experience is what people have accumulated over a lifetime, it provides useful information in many situations, but it is a subjective way of problem solving. Reasoning is the second way people understand and make sense of the world. Reasoning started with Aristotle's deduction and continued with Bacon's induction. In the 1600s, Bacon criticized deduction on the grounds that it led to bias and instead proposed induction, which allowed conclusions to be drawn from a series of individual cases. Later, the inductive-deductive approach showed its influence. The third way that humans use to reach the truth is research. The main points that distinguish research from experience and reasoning are that it is systematic and controlled, empirical and self-correcting (Balci, 2011: 1-3). When did science say its first word about research? The first known scientific work is the work of Anaximander of Miletus, which he dealt with 547 years before Christ, but didn't he have guides? Thales, the merchant, sailor and scholar from Miletus. Thales' prediction of the time of the solar eclipse shows that he also had teachers, who are thought to have been the Babylonians. In seven plates made of clay, the Babylonians wrote about the stars, the planets, the year, the month, the day, the magnitude of the stars and the solar eclipse. Medical manuals, the first geographical maps were here... In zoology books, animals were classified and animals were divided into birds, fish and quadrupeds. Dogs, donkeys, oxen were subclasses of quadrupeds... They calculated the number π as approximately 3 (Ilin & Segal, 2009: 131-133). Classification, measurement and calculation were at the roots of science. Events and phenomena were observed, tested and transformed into certain numerical expressions.

In summary, the most primitive starting point of science is the collection and classification of experiences. Then comes the effort to express them numerically. Quantity is one of the important stages in the development of science (Kaptan, 1998: 11). The idea of "*Everything that exists has a certain amount. Knowing it in all its ways is possible by knowing the quantity as well as the quality*" (Thorndike, 1918: 16), is a concrete example of the tradition of expressing scientific research with numbers. Seeing true knowledge as the product of quantification is the gift of positivism. In this context, the nature of quantitative research and positivism within it will be briefly examined.

Nature of Quantitative Research

For something to be considered knowledge, it must meet three basic conditions (Yıldırım, 1993: 13): (1) That it can be expressed with a proposition, (2) evidence and documents showing the truth of this proposition and (3) belief in the truth of a proposition.

In the search for scientific knowledge, one starts from a proposition and tries to support the truth of this proposition with certain evidence. Evidence is usually everything related to the phenomenon. What is important here is that the propositions are based on a theory. The nature of the quantitative approach requires starting from a theory and determining the conformity of the phenomenon under study to that theory. While testing the conformity of a phenomenon to a theory, the phenomenon is generally attempted to be described with all its features. This effort of description manifests itself with a positivist understanding in the form of the quantification of the phenomenon.

Positivism and the Positive Sciences

Science is the effort to understand the phenomena in our world through description, explanation and prediction. Positivism is to reach new generalizations and make new inferences by observing phenomena and examining the relationships between each individual phenomena. While positivism focused on natural sciences until the beginning of the 19th century, the sciences dealing with human beings were later included in the field of positivism (Aziz, 2013: 4).

Natural and Human Sciences: Natural sciences, such as physics, chemistry, biology, geology, physical anthropology, astronomy, etc., deal with living and non-living beings in the world and the events related to them, which constitute the subject matter of positive sciences (Aziz, 2013: 4). Just as positivist epistemology has been the pioneer and dominant approach in the development of

natural sciences, similarly, positivism has been the pioneer and dominant element in the historical development of social science. Positivism argues that the methods and techniques used in natural sciences can also be used in social sciences. According to this approach, there is only one logic that any activity that has the characteristics of science should follow. That is to examine phenomena by using experiments and observations, statistical and mathematical techniques, to establish relationships and to arrive at new generalizations based on them. The rationalization of the results obtained with philosophy is also provided. If the studies conducted by different researchers in the same population do not show consistency with each other, it means that mistakes have been made in measurement, method, technique or analysis and interpretation (İslamoğlu & Alnıaçık, 2013: 13).

The approach to social reality completely influences the approach to explaining and interpreting it. The approach therefore brings with it different truths about research methods and researcher roles. If the researcher adopts a positivist approach, he/she will look at social reality as concrete, real and external to him/her and adopt traditional research approaches (Balçı, 2011: 4) and quantify his/her observations through inductive and deductive ways of reasoning (Balnaves & Caputi, 2001: 39).

There are similarities and differences between the human and natural sciences within the positive sciences. Both deal with individual events and the relationships between them. The aim is to determine these relationships and to make inferences from them by obtaining precise or near-precise results and to generalize them. In addition, the inductive method is another similarity of both sets of sciences. On the other hand, the nature of the subjects they examine and the certainty of the results differ between these two sets of sciences (Aziz, 2013: 5).

Educational Sciences in Positivism: Today, scientific research in various fields of education is rapidly being put into practice. There are two views on the scientization of education today (Balçı, 2011: 3): I-Traditional view considers education as natural sciences and applies natural science research in producing science. II-The radical view maintains the traditional social science approach to natural science research and the description of human behavior. The emphasis is usually on human difference from natural phenomena and from each other. It is argued by many researchers that it is difficult to make generalizable inferences about educational research. Although there is a large part of education that can be explained with quantities, there are also cases where quantities are insufficient to explain events and phenomena.

Quantitative Research

Research is the search for truth and reality. Scientific research is the one conducted by following a certain systematic approach in data collection, analysis and interpretation (McMillan & Schumacher, 1984: 7). If social events are seen as the natural world, i.e. as concrete, external and objective reality (positivist paradigm), scientific research will be oriented towards the analysis of the relationships between events or variables in this world and will mainly involve experimentation and observation. Positivism, which forms the basis of quantitative research, has a number of characteristics that give rise to the search for quantitative data. The search for objective research methods, the tendency to explain causes with laws and the search for a standard language have brought along quantification. These points emphasized in positivism are summarized in Table 1 (Marvasti, 2004: 8).

Table 1

Points Emphasized in Positivism

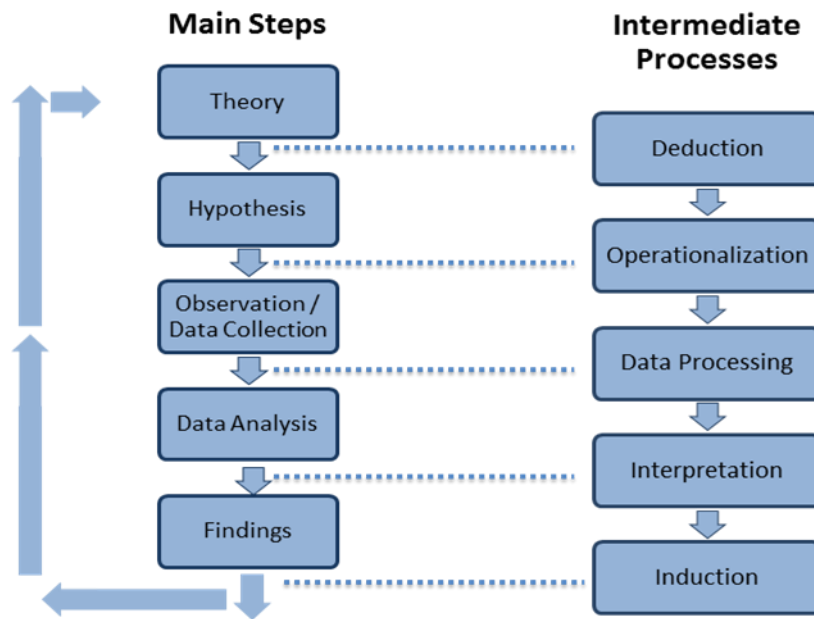
Points	Positivism
Theoretical position on social reality	How can we use objective research methods to capture the essence of social reality?
Objective of the research	What are the laws that explain the causes of human behavior?
Enduring question	How can we develop a standardized and neutral language for reporting research?

Source: Adapted from “*Qualitative research in sociology*” by Marvasti, A. B. (2004). Sage Publications.

Quantitative research is often conceptualized by its pioneers as follows: Quantitative research means having a logical structure in which researchers identify the problems they emphasize through hypotheses derived from general theories. In positivist methodology, researchers tend to test hypotheses derived from theory. These hypotheses are assumptions about causal relationships. Due to the belief that concepts in social sciences are abstract, the need to make operational definitions arises. Data are collected and analyzed through surveys, experiments and observations. In this way, the hypothesis is confirmed or falsified. The findings are absorbed by the theory that establishes the whole process in the first stage (Bryman, 1988: 18-19). These stages are summarized in Figure 1.

Figure 1

Logical Structure of the Quantitative Research Process



Source: Adapted from “*Quantity and quality in social research*” by Bryman, A. (1988). Routledge.

As can be seen, quantitative research starts from theory and arrives at theory. There are researchers who categorize quantitative research differently. For some researchers, quantitative research is empirical, while for others it falls under the category of statistical research. In the recent past, quantitative approaches were the dominant research approach in social science research. Today, it continues to be effective despite new paradigms (Newman & Benz, 1998: 5).

Characteristics of Quantitative Research

When we think of quantitative research, statistics and numbers often come to mind. Quantitative research is the process of explaining a phenomenon by collecting numerical data that allows for analysis using mathematically based methods. A step-by-step examination of the definition will be enlightening for understanding quantitative research (Muijs, 2004: 1-2):

The explanation of the phenomenon: The main concern of all research is to try to explain something.

Numerical data: In order to perform the analysis with mathematically based methods, the data must also be numerical.

Mathematical-based method: This refers to the method used to analyze data and is usually a statistical-based application.

Although quantitative research is directly identified with quantification by some researchers, it is an approach that includes many features. According to Creswell (2012: 13), the main features of quantitative research can be listed as follows:

- The identification of a problem through the need to explain the relationship between variables or through the explanation of trends,
- Providing a central role for the literature by suggesting research questions to ask, validating the research problem and creating the need to define a pathway,
- Formulating specific, concise, measurable and observable propositions, research questions and hypotheses,
- Collecting quantitative data from large numbers of people through instruments with pre-structured questions and responses,
- Using statistical techniques; analyzing trends, comparing groups, or relating variables and interpreting results by comparing them with preliminary predictions and past research,
- Writing research reports with standardized, fixed structures and evaluation criteria and adopting an objective, unbiased attitude.

The quantitative research approach emphasizes certain things at different stages of the scientific process. The assumptions that quantitative research focuses on at particular steps of the process are summarized by Johnson and Christensen (2004: 31). Table 2 outlines the whole process in the quantitative research approach.

Table 2

Whole Process in the Quantitative Research Approach

Scientific Method	Deductive or "top-down". The researcher tests the hypothesis or theory with data.
View of human behavior	Behavior is regular and predictable.
Most common aims	Describe, explain, and predict.
Focus	Narrow-angle lens; testing a specific hypothesis.
Nature of observation	An attempt to study behavior under controlled conditions.
Nature of reality	Objective (different observers agree on what is observed).
Data format	Quantitative data collection through structured and validated data collection instruments.
Nature of data	Variables.
Data analysis	Identifying statistical relationships.
Results	Generalizable results.
Report format	Statistical report (relationships, comparisons, significance...)

Source: Adapted from “*Educational Research, Quantitative, Qualitative and Mixed Approaches*” by Johnson, B. & Christensen, L. (2004). Pearson Education, Inc.

As can be seen, quantitative research uses deduction as a scientific method, the hypothesis is tested with data. Human behavior is assumed to be regular and predictable and the aim is to describe, explain and predict these behaviors and phenomena. Reality is considered "objective" and the validity and reliability of data collection tools are emphasized. Data is collected on variables and analyzed by identifying statistical relationships. At the end of this process, the important thing is to reach generalizable findings and these results are presented in the light of statistical evaluations.

In addition to these, Michael (1999: 11-13) emphasized the approaches taken in the quantitative research process according to research effectiveness. Random sampling, questionnaires and scales, numerical values, validity, reliability, statistics and empiricism are presented as concepts identified with quantitative research. These activities and approaches are given below:

- *Selection of subjects or units of analysis:* Random sampling to ensure generalization and allow statistical comparisons,
- *Research protocol:* Data collection, usually through structured questionnaires and scales, and the widespread use of closed-ended, choice-presented questions,

- *Data collection and recording methods:* Basically numerical values and observation checklists with clearly defined categories,
- *Data triangulation:* Consistency checklists are included in questionnaires to ensure independent measurement of key variables,
- *Data analysis:* Descriptive statistics, multiple variance analysis, significance tests
- *The role of the conceptual framework:* To serve as a source of empirically testable hypotheses
- *Research activity:* Starting from the general, focus on the result rather than the process, positivist approach.

The Meaning and Place of Quantification in the Quantitative Research

The main purpose of all fields of science can be summarized as knowing the relevant population and trying to solve problems by making new discoveries in related fields. Within the framework of these and similar purposes, many scientific researches are carried out in every field, every century (Alpar, 2012: 11). For social sciences, research can be defined as a multifaceted activity that seeks to understand human behavior and increase knowledge on this subject. (Büyüköztürk et al., 2013: 2). Measurement is an important element in this activity.

Measurement is the process of observation and recording (Erdoğan, 2012: 242). "*Let alone saying that much progress can be achieved in any branch of science without resorting to measurement, it is hardly a defensible claim that there can be a kind of science without measurement ...*" (Yıldırım, 1993: 87). Measurement is an integral element of science. Science and the development of science has been possible through measurement and the ability to make better and more precise measurements. As science progresses, the importance given to measurement and mathematical operations increases (Kaptan, 1998: 11).

If you can measure what you are talking about and express it numerically ... it means that you know something ... if you cannot, your knowledge is both insufficient and not of the desired quality; what you know may be the beginning of knowledge, but whatever the case ... it cannot be said that you have reached the scientific stage at the level of thought (Yıldırım, 1974: 129; cited in Yıldırım, 1993: 87).

Measurement is important for science because the benefits of measurement to science are tangible. Science ensures that its results are expressed as precisely, clearly and accurately as possible. The data obtained through measurement makes this possible. When the expression "water boils when heated" and the expressions "water boils when the water temperature is increased to 100 degrees" are compared, the first statement falls short in terms of precision and clarity and the amount of information they provide. Converting qualitative concepts into quantitative concepts is an important problem in all branches of science. In fact, the state of development of sciences is measured by the degree to which concepts are quantitative (Yıldırım, 1993: 87).

The emphasis of quantitative research on measurement comes from the measurability of events and phenomena in natural sciences. When it comes to social sciences, of course, there is a need for measurement and numbers, but care should be taken when associating them with facts. Social sciences are based on empirical research. Empirical findings are findings from observed events. Empirical research requires measurement. These measurement results or measurements can be expressed as data (Büyüköztürk et al. 2013: 2). Statistics comes into play in the process of making measurements and making these measurements meaningful.

Johnson and Christensen (2004) argue that statistics is a science that deals with the collection, classification, presentation and interpretation of numerical data. Statistics brings together and examines measurable information and enables the development and application of methods and techniques for making sense of this information and obtaining reliable results from the resulting information (Aziz, 2013: 14). The science of statistics is an indispensable part of research processes and is the common point of all branches of science. It enables planning the study, collecting and

evaluating data, reaching a decision and making inferences in order to examine any subject scientifically (Alpar, 2012: 12).

Obviously, science cannot be abstracted from numbers and quantification, but as emphasized before, the main source of quantification is essentially the concern to describe the phenomenon. When describing the phenomenon, it is extremely important to know as many features as possible in order to understand and make sense of it. On the other hand, in order for numbers to make sense in a research, the research needs to be designed appropriately. In the next section, the main quantitative research designs will be discussed.

Quantitative Research Designs

Quantitative designs include experimental designs, pretest-posttest designs and many other designs. The aim is to reach generalizations through valid and reliable measurements, random selection and control of variables (Newman & Benz, 1998: 5-20). Scales and experiments are the main tools of quantitative research, but three other tools should be emphasized. The first one is the analysis of previously collected data. For example, official records on crime, unemployment, health, suicide can be included in the quantitative research tradition. Secondly, structured observations are an important source of quantitative data. The observer makes observations within a predetermined program and quantifies the results. Finally, content analysis (e.g. qualitative analysis of the communication content of the media) also has many of the characteristics of quantitative research (Bryman, 1988: 12) when you describe the content with numbers. These three approaches are underemphasized under the quantitative research approach in many sources.

Research can be classified in different ways in terms of the way the subject is handled, method, content and purpose (İslamoğlu & Almiaçık, 2013: 39). In addition to these, it is also possible to classify quantitative research according to the level of knowledge, comparisons, and examination of change over time (Erdoğan, 2012: 169-199). In this section, some of Erdoğan's (2012: 169-199) classifications will be used when classifying quantitative design types. Erdoğan (2012: 169-199) categorized quantitative research designs as exploratory, descriptive and correlational research according to the level of knowledge; comparisons of variables and groups according to comparisons; development research, cross-sectional research, longitudinal research and repeated measures according to the method of finding change over time; and experimental designs and other.

Types of Research by Level of Knowledge

According to the level of knowledge, research types can be classified as exploratory research designs, descriptive survey research and correlational designs.

Exploratory Research Design: This research design is intended to understand what is happening, to find and identify the unknown, and to develop control mechanisms. Usually one of the experimental research approaches is used. This type of research is important in finding the unknown and pioneering the next. Exploratory experiments in science are examples of this research design (Erdoğan, 2012: 169). For instance, Cuthill (2002) investigated local development practices as demonstrated by the experiences and deeds of local citizens, community-based organizations, and local government by exploratory research design.

Survey Designs: In some quantitative research, it may not be desirable to test an activity or material or to determine the relationship between variables. Instead, the researcher may want to determine the trends of a large population. Survey research attempts to determine the trends, attitudes, opinions and characteristics of a large group of people by applying a scale or questionnaire to a small group of people (Creswell, 2012: 21). Survey models are research approaches that aim to describe a situation existing in the past or present as it is (Karasar, 2012: 77). They produce quantitative information about the social world and describe the views of people or the social world (Kuş, 2012: 44). Survey research, which is widely conducted in social sciences in education, seeks to describe phenomena and events by taking the opinions of individuals about a phenomenon or event (Scott & Morrison, 2007: 232; Lodico et al. 2006: 157) and are highly valid studies. For example Altun (2014) searched the views of teachers and administrators in terms of their preferences about teacher

supervision as a tool for professional development by survey design. As a result of survey research participants wanted teacher supervision to be executed by multiple actors (Altun and Sarpkaya, 2020).

In summary, survey research is research that aims to collect data to describe certain characteristics of a group (Büyüköztürk et al. 2013: 14). The concept of description means depicting what a situation, condition, person, relationship, organized activity, communication process, applied policy is (Erdoğan, 2012: 169). Generally, no hypothesis is identified, no relationship is sought, no prediction is made; the nature of the variables is described. The aim is to describe the existing situation (Karakaya, 2011: 59). Based on the theory, it is extremely necessary in developing the theory, creating a theory and making suggestions about the situation (Creemers et al. 2010: 111).

Relational Designs: In some studies, the researcher cannot intervene in the group or assign individuals to the group. In such cases, the relationship or interaction of one or more variables is examined using statistical methods and correlation. The level of this relationship, which is determined numerically, expresses the relationship between two or more variables or whether one can predict the other (Creswell, 2012: 21). If the design seeks a relationship between two variables, it is called bivariate analysis, and if it seeks common effects and relationships with multiple variables, it is called multivariate analysis. If a cause and effect relationship can be established between variables in relational design, it is referred to as causal relational design. The cause is an activity, while the effect is what comes with that activity. In social sciences, the difficulty of controlling everything else that affects a variable and the possibility of finding spurious relationship patterns as significant without realizing it are important limitations of the design (Erdoğan, 2012: 171-172). Demir (2023) explored the relationship between teachers' professional autonomy and motivation and Bayraktar (2023) investigated relationship between school administrators' self-efficacy and political skills by relational designs.

Research on Finding Change Over Time

Development Research Design: The nature of change in the phenomenon selected for research is examined as a function of time. The design can be a single time series, a trend analysis, a growth design intended to compare groups. For the simplest example, a child who is curious about how much his/her height grows by putting a notch on the door makes measurements for a development analysis on the basis of his/her height (Erdoğan, 2012: 176). Issues such as economic growth and socio-economic development can be analyzed as a function of time.

Longitudinal Design: In longitudinal studies, a single or a group of elements are taken into consideration and their changes in terms of the phenomenon being searched are monitored in parallel with time (Kaptan, 1998: 68). It is conducted to examine the situation or change within a specified period of time and is based on systematic data collected over a period of time (Erdoğan, 2012: 178). In short, it involves collecting multiple data from the selected sample at different times (Karakaya, 2011: 61). For example, examining a group of seven-year-old children over a period of years until they are eight, nine and ten years old in terms of the specified variable is the method of longitudinal design (Kaptan, 1998: 68). For instance, Kartal and Beşer (2023) designed a longitudinal study on primary school students' reasons for liking and disliking children's books and collected data through two years from the same students.

Cross-Sectional Design: Cross-sectional design may also be referred to as latitudinal or extended design in some sources. It means conducting a developmental analysis in a single time period. For example, the change in consumption habits of children as they grow up can be the subject of design (Erdoğan, 2012: 178); however, instead of following a group of children for years, the habits of children from different age groups can be analyzed, comparisons can be made and changes can be interpreted. For example Saraç et al. (2023) assessed Turkish primary school teachers' responses to dental injuries, particularly dental avulsions by a cross sectional design.

Experimental Design: Some quantitative researchers investigate whether an educational intervention produces changes for individuals. Experimental designs are well suited to this type of research problem. Experimental designs, sometimes referred to as intervention designs or group comparisons, seek to determine whether an activity or material produces changes in outcomes for

individuals. In this research, the effect is measured by holding one group constant while providing some activities to another group (Creswell, 2012: 20-21). Experimental research is defined by some researchers as research in which the most precise results are obtained among scientific methods. With this approach, for example, a teacher in a geography course can collect data on the application of several methods and compare their effects on the level of learning while looking for ways to effectively teach a concept to students (Büyüköztürk, et al. 2013: 17). The main features of this research design are to directly show the effect of variables on each other and to enable the testing of hypotheses (Karakaya, 2011: 75). For example Atatekin, Istanbulu and Korkmaz (2023) investigated the effect of using digital stories in Turkish lesson on students' achievement and attitudes by experimental design.

Meta-Analysis

Meta-analysis is a method used to reach a synthesis from the results of these studies by considering and examining the research conducted for a specific purpose or subject together. As a result of meta-analysis studies, results with high generalizability and verifiability are reached by evaluating many researches' results. In meta-analysis, the analysis of different research findings is usually done using statistical techniques. With this method, it is also aimed to overcome the limitations of single research (Büyüköztürk et al. 2013: 18). Meta-analysis is a systematic review study and with such studies, it is aimed both to help draw the big picture by evaluating the results of primary studies and to provide decision makers and practitioners with results based on more reliable scientific data (Üstün & Eryılmaz, 2012).

Quantitative research designs offer researchers the opportunity to address the relevant phenomenon in the most accurate way. Quantitative research is very valuable in terms of providing concrete data in describing the phenomenon. It is extremely important in terms of enabling valid and reliable measurements, aiming for generalizability with random selections, and being the basic starting point in explaining theories. In addition, quantitative research has some weaknesses. The next section briefly addresses these concerns.

Concerns of the Quantitative Research

Although quantitative research is a common type of research, it is possible to say that it raises a number of concerns. Bryman (1988: 21-41) examined these concerns in detail. Also Queirós, Faria and Almeida (2017) evaluates strengths and limitations of quantitative research methods. These concerns can be summarized under the following headings:

Concepts and the measurement of concepts: Concepts are the main focus and starting point for the social sciences. Quantitative research has to make concepts observable, which is a challenging issue. These concepts are rooted in hypotheses derived from a theoretical framework. Conceptualization in social sciences is a difficult task. At this point, operational definitions are given while conceptualizing. Then we move from these concepts to empirical indexes and ways of measuring the concepts are determined. The wide use of factor analysis exemplifies this point. Factor analysis attempts to describe the dimensions underlying the items of a particular scale. A simple example of this approach can be seen in the Ohio State studies. Definitions of leadership were presented to subordinates and leadership behavior was measured.

Causality: Quantitative research is heavily preoccupied with establishing causal relationships between concepts. This has emerged under the influence of the natural sciences. The emergence and frequent use of the concepts of dependent and independent variables is a product of the tendency that there should be causal reasoning. In descriptive research, data are collected by means of questionnaires, interview forms, etc. from a sample. The data provide the researcher with the opportunity to see whether there is a relationship between various variables given in the questionnaire. The researcher tends to establish a cause and effect relationship, but since "correlation does not imply cause", the success of establishing causality is limited. Experimental designs are more prone to establish causal relationships.

Generalization: One of the biggest concerns of quantitative research is generalization. This is most evident in sample selection. The main reason for random selection is to strengthen the possibility of generalizability, but ensuring generalizability is not an ordinary task.

Replicability: Replication is a means of checking the degree of applicability of findings to other contexts. It is also seen as a means of checking the biases of the researcher. This is actually a gift of the natural sciences, but reproducibility is difficult in the social sciences.

Individualism: Quantitative research tends to see the individual as the focus of empirical research. It reflects the overall measurement of the sample through the sum of individual responses. Individuals do not need to know each other, only the sum of their independent responses is attributed to the sample. Also reliability of data is very dependent on the quality of answers of individuals.

Being aware of the concerns of quantitative research can lead to its more effective use. In particular, educational research has an important place in the subject areas of quantitative research. An educational researcher should know how to utilize quantitative research in accordance with its starting point and purpose. In the next section, the place of quantitative research in educational research approaches will be examined.

Conclusion

Since the first day of the history of science, humanity has been in pursuit of accurate and useful knowledge. It owes its success in its struggle with nature to scientific research. Its success in this struggle is directly proportional to its success in analyzing events and phenomena. The approach it uses to analyze events and phenomena is extremely important. The basic starting point for making inferences about a phenomenon is to describe the phenomenon in the best way practicable. In order to test the accuracy of a piece of knowledge, after a proposition is developed, all the features related to that proposition are put forward. These features will be compared with the existing theory and then accepted or rejected according to their conformity. The effort to present a proposition with all its features as much as possible in order to be able to make comparisons has led to the quantitative definition of the phenomenon. This is the starting point of quantitative research. The phenomenon is attempted to be described with all relevant quantities.

The quantitative scientific approach has many characteristics. The quantitative approach is concerned with generalization of facts and events. The results obtained from a certain sample are attempted to be generalized to the universe. For this, systematic selections are made and the numerical data obtained are analyzed in a systematic order. Again, a systematic reporting process is in question. The quantitative research approach, which is fed by the applications of positivism in natural sciences, has an important place in social sciences research. However, it also has some limitations. Choosing the right research design is important to minimize these limitations.

In addition, the place of educational research in social sciences research is quite important. The researcher's perspective on education will affect his/her approach to examining and explaining the events and phenomena related to education. The researcher will benefit from quantitative research approaches to a certain extent according to his/her perspective. The important thing is to be mindful when examining and making inferences about the phenomenon of education and to be robust in order not to be tempted by numbers and not to make false connections.

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Group Behavior: A Conceptual Analysis

Yasemin Yesilbas Ozenc¹

Abstract

People join a group for reasons such as avoiding the feeling of loneliness and social exclusion, being accepted by others, gaining status, and achieving success with the group, based on the need of sense of belonging mentioned in Maslow's Hierarchy of Needs. When individuals join groups, they both influence the group with their personal characteristics and are also affected by the structure, behavioral norms and situational conditions of the group. Many features such as the structure and characteristics of the group, individual characteristics of group members, norms of the group, roles, duties and status of the individuals have an impact on group behavior. It is important for the group members and the group leader to work in coordination in order for the group to achieve its goals and ensure its sustainability. In this study, the conceptual framework of individual and situational factors related to group behavior, characteristics of group structure, group development and group outcomes is presented with a holistic approach. The study is considered to be important in terms of providing researchers with a conceptual analysis on group behavior.

Keywords: Group behavior, group dynamics, group norms, group leader.

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Introduction

People naturally want to be included in a group based on the need of sense of belonging. Group behavior is a process that improves under the influence of individual and situational variables. Individual characteristics of group members, group structure (norms, roles, status, group cohesiveness) and group development activities, group type, group size and group tasks have an impact on group behavior and outcomes. Groups can bring about attitude change in individuals, increase their tendency to take risks by acting in a group, and give them status related to the roles they have in the group. In addition, individuals may be more successful when they work as a group member than when they work individually in situations where social shirking behavior does not occur. Therefore, groups are influenced by the individual characteristics (personality traits, skills and abilities, success, etc.) of organizational members as well as the behaviors of individuals. All group members have various duties and responsibilities in achieving the group's goals. When evaluated in terms of the roles of group members, it can be said that the group leader has an important role in ensuring organizational success. Within the framework of group norms, the leader should direct the group members towards the determined goal, make efforts to increase their performance and ensure the effectiveness of the group. This study aims to present a conceptual analysis of the individual and situational factors that influence group behavior, group structure, group development and group outcomes.

Group

A group is two or more people interacting to achieve a common goal. A group is a community of individuals who share a common norm system, have different roles and interact with each other to achieve common goals (Balci, 2016: 85). Groups consist of two or more people interacting with each other, coming together to accomplish a specific goal (Robbins, Decenzo & Coulter, 2013: 250; Robbins & Judge, 2017: 276). People who are physically altogether, even if they look like a group from the outside, cannot be attributed as a group if they do not interact and communicate with each other (Özkalp & Kirel, 2016: 200). A group is a structure in which two or more individuals interact with each other and individuals are aware of their positive interdependence in achieving the set goals. Therefore, individuals know that they are members of the group and behave accordingly (Hogg & Vaughan, 2014: 288; Johnson & Johnson, 1987: 8). To summarize, in order to speak of a group, group members should perceive themselves as part of the group in line with common goals and rules, and individuals should interact and depend on each other (Can, Azizoğlu & Aydın, 2015: 165).

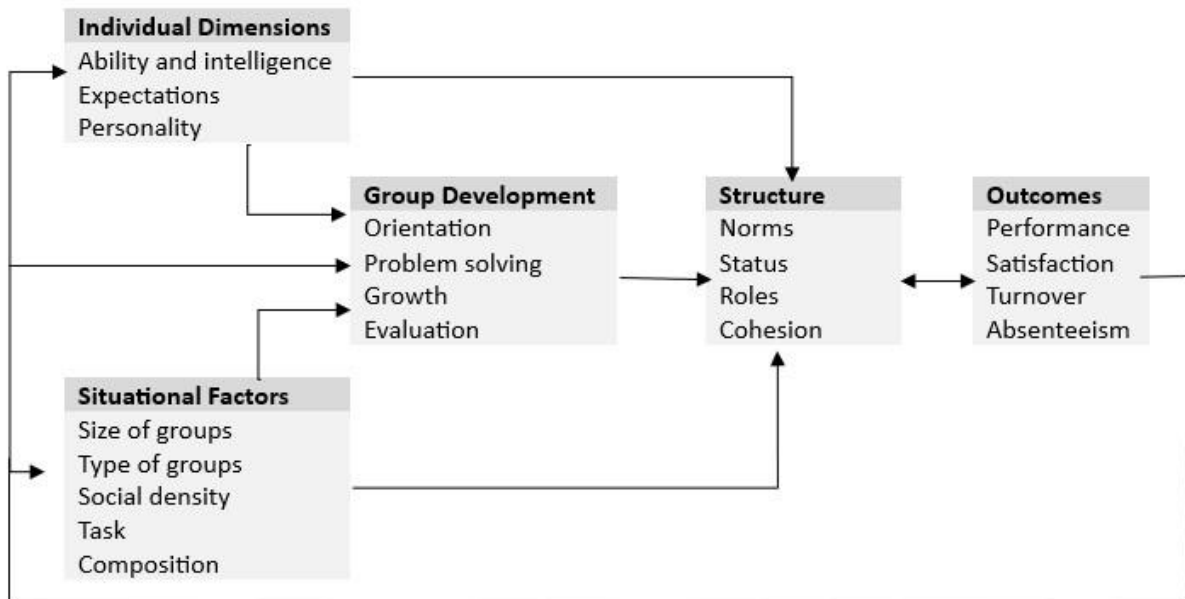
People have a basic need to "belong" and this leads them to become close to each other and join groups (Baumeister & Leary, 1995). In addition, physical closeness can also be counted among the reasons for joining a group (Hogg & Vaughan, 2014: 318). Individuals tend to get along well with people with whom they are often in the same physical space (Tyler & Sears, 1977). Individuals may also want to join a group to avoid social exclusion (Hogg & Vaughan, 2014: 320). Social exclusion is the deprivation of individuals from all kinds of social interaction with group members and isolation from the group (Solak & Teközel, 2019). Finally, eliminating the insecurity of loneliness by joining a group, gaining status by joining a group that is respected by others, and meeting social needs are among the reasons for joining a group (Can et al., 2015: 165-166). The desire to associate with other people and belong to a group is an innate drive. Groups also have a social facilitation effect. Social facilitation is the tendency of individuals to be better at easy tasks and less successful at complex tasks in the presence of others and in the evaluation of individual performance (Aronson, Wilson & Akert, 2012: 497, 510). In addition to social facilitation behavior, individuals also exhibit social shirking behavior. Social shirking is the decrease in the effort of each person as the number of members in the group increases. While doing a task, individuals make less effort with the idea that other group members will do it anyway (Hogg & Vaughan, 2014: 298). Therefore, individuals may join a group in order to achieve success more easily through the group as well as individual achievements.

The mutual interactions within the group constitute group dynamics. Since a group is a living structure, there are continuous interactions among individuals. Group dynamics are the effects of changes in any part of the group on the individuals in the group and on the structure of the group.

Group dynamics refers to cause-effect relationships within the group, the formation and functioning of groups (Güney, 2015: 154-155). Group dynamics are the interactions and forces among group members in social situations (Luthans, 2011: 339). Group behavior is the behavior of an individual under the influence of the group (Güney, 2004: 101). Group behavior is the behavior that emerges when similarities are observed in the behavior of individuals as a result of the norms, standards, rules and sanctions of the group as well as the interactions between individuals (Balci, 2016: 85). Group behavior is a process that evolves under the influence of individual and situational variables. In this context, the structure of the group and group development activities have an impact on group behaviors and outputs (Figure 1).

Figure 1

A Framework for Group Behavior



Source: Szilagyi & Wallace, 1990.

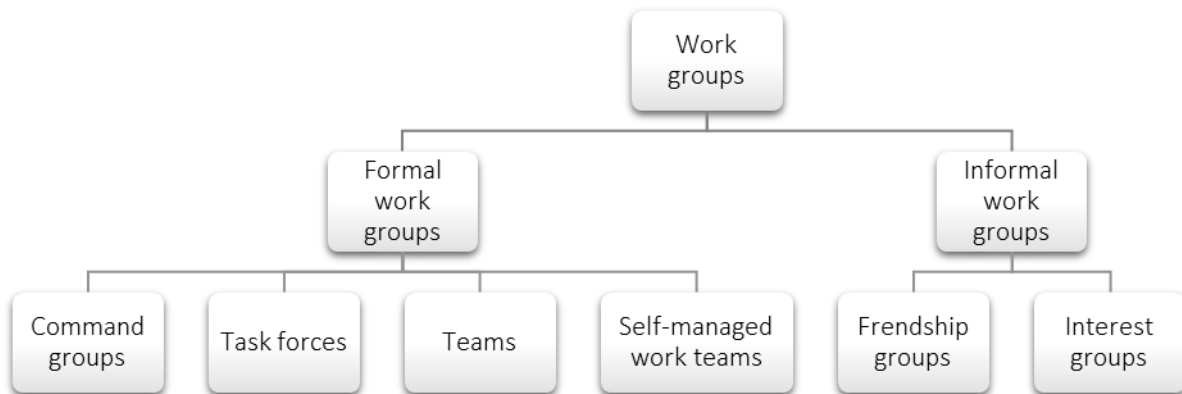
1. Individual Factors in Group Behavior

One of the main characteristics of a group is that it creates a sense of synergy (team spirit, peer solidarity, morale, motivation) among members. Through this unity, individuals support each other by forming close bonds and become self-sufficient (Hogg & Vaughan, 2014: 301). Group members bring with them characteristics that can affect group behavior. An individual's typical behavioral patterns, how he or she reacts to others, skills and abilities influence the reactions of other group members to that individual, the subsequent interaction and the ultimate performance as a group (Szilagyi & Wallace, 1990: 261).

2. Situational Factors in Group Behavior

Group behavior is influenced by various factors such as group structure, size and tasks. There are many types of groups in organizations and groups play an important role in determining organizational effectiveness. Groups are divided into formal and informal groups (Figure 2). Managers establish formal groups in order to achieve organizational goals. In formal groups, goals are determined key to the needs of the organization. Informal groups, on the other hand, arise naturally in organizations. This is because individuals believe that working together in a group will help them achieve their goals or meet their needs (George and Jones, 2012: 305).

Figure 2
Types of Work Groups



Source: George & Jones, 2012.

Based on the figure, it is possible to say that groups are considered as formal and informal groups; formal groups consist of command groups, task groups, teams and self-managed teams. Informal groups consist of friendship groups and interest groups. Formal groups are the groups determined by the organizational management in which jobs are allocated in order to fulfill the tasks. The behaviors that individuals must fulfill in formal groups are aimed at achieving the goals of the organization (Robbins & Judge, 2017: 276). Informal groups are naturally occurring structures in organizations. Individuals in the organization form informal groups in order to meet their interests, needs or goals that the formal organization cannot meet (Balci, 2016: 85). These groups emerge spontaneously in organizations and tend to form around common interests and friendships (Robbins et al., 2013: 250).

Formal groups planned and formed by the organization can also be allocated by the organization. In organizations, the pattern of relations among formal groups are aimed to be determined by creating an organizational chart and the tasks to be assigned to these groups are determined (Aydin, 2014: 18). In organizations, members who report to a specific manager constitute the *command and control group* (Can et al., 2015: 166). This group consists of individuals who report directly to a specific manager and report directly to the manager (Robbins & Judge, 2017: 276). *Task groups* consist of members brought together to complete a specific task (Can et al., 2015: 166-167). In task groups, there are not only hierarchical command and control structures but also cross-command structures (Robbins & Judge, 2017: 276). A *team* is a formal working group consisting of individuals working in a coordinated manner to achieve the group's goals. A team consists of individuals who interact at a high level and work together intensively to achieve a common group goal. *Self-managed teams* are formal work groups consisting of individuals who are jointly responsible for achieving the team's goals and directing individuals (George & Jones, 2012: 306; Hellriegel, Slocum & Woodman, 1995: 273).

At the end of the process of bringing individuals together in a formal organization, the emergence of informal organizations is inevitable. The relationships that arise spontaneously between the individuals that make up the formal group constitute informal groups (Aydin, 2014: 19). *Interest groups*, one of the informal groups, are communities formed when individuals come together due to a subject of interest. Communities formed by individuals coming together to improve working conditions can be given as an example (Robbins & Judge, 2017: 277). *Friendship groups* are groups formed by individuals who want to share with each other outside the organization (Can et al., 2015: 167). Social associations that usually take place outside the organization, close age groups, similar ethnic origins, those who are interested in the same music group and those with the same political

views can form these groups (Robbins & Judge, 2017: 277). Individuals join natural organizations in order to establish relationships with others, to belong to a group and to feel a sense of identification, to get help in realizing the behaviors desired by the organization and to cooperate with other individuals (Aydın, 2014: 20-22). Informal groups provide many advantages to individuals. The first of these is the integration and reinforcement of social values through informal groups. These values turn into norms that shape individuals over time. In addition, in informal groups, information transmission is faster than in formal groups and individuals in these groups can get information and take action in a short time. Finally, informal groups guide the behavior of group members and facilitate their work (Özkalp & Kirel, 2016: 206-207).

The size of the group and the tasks of the group play an important role in group behavior. The number of individuals forming the group affects the integration of the group. Since there will be many informal relations in groups with a large population, the integration of the group becomes difficult. Because conflicts arise in groups with many informal relationships (Güney, 2007: 664). Social interactions are more frequent in small groups than in large groups. In large groups, the large number of group members leads to the emergence of subgroups. Subgroups can affect the organization positively or negatively (Özkalp & Kirel, 2016: 216). Groups of 12 or more people are more successful in providing various inputs. Because it is easier for all group members to interact with each other (Berelson & Steiner, 1964). On the other hand, small groups with 5 to 7 members tend to act more efficiently (Robbins et al., 2013: 255). In addition to the size of the group, the tasks of the group also have an impact on group behavior. Groups can be formed to fulfill production, discussion and problem solving tasks (Hackman & Jones, 1965; cited in Szilagyi & Wallace, 1990: 264). The greater the difficulty of the task, the more important it becomes for group members to interact effectively to achieve a high level of performance (Szilagyi & Wallace, 1990: 264).

3. Structure of the Group

The relationships between the individuals who make up the group and the characteristics that ensure the functioning of the group constitute the structure of the group (Can, et al., 2015: 175). These features can be considered as group norms, roles, status and cohesiveness (Szilagyi & Wallace, 1990: 258). Group structure has an impact on group behavior and individual behavior.

Norms

Groups help to establish social norms, in other words, explicit or implicit rules about behaviors accepted in the group (Aronson, Wilson, & Akert, 2012: 498). Individuals within the group tend to think and behave in a similar way. Continuous communication between group members leads to the formation of common value judgments and group norms shared by the group (Aydın, 2014: 23). Norms are behaviors that are commonly shared by individuals in the organization and that must be performed within the group (Robbins & Judge, 2017: 285). Norms are common beliefs about how group members should behave. These beliefs are descriptive as well as prescriptive. Norms create a frame of reference for individuals' behaviors (Hogg & Vaughan, 2014: 308-310). In other words, norms guide group members to achieve organizational goals (Hellriegel, Slocum & Woodman, 1995: 285). Each group creates its own norms (Robbins et al., 2013: 253). Norms serve four purposes within the group. These are: (1) facilitating the continuity and survival of the group, (2) setting the limits of behaviors, (3) helping group members avoid embarrassing situations, (3) expressing the core values of the group and helping to know the characteristics that distinguish the group from others (Özkalp & Kirel, 2016: 218).

Roles

In every group, members have certain social roles to fulfil. These roles are common expectations about how individuals should behave within the group (Hare, 2003; cited in Aronson, Wilson & Akert, 2012: 500). With the division of work in groups, roles emerge that individuals must fulfill (George & Jones, 2012: 314). Role is the behavioral patterns that an individual must perform depending on his/her position in the organization (Robbins & Judge, 2017: 282). Roles are largely similar to norms. However, while norms apply to the group as a whole, roles apply to subgroup

members. Roles are behavioral patterns imposed on individuals that are designed on the differentiation of group members in order to ensure the effectiveness of the group (Hogg & Vaughan, 2014: 312). Individuals fulfil the roles expected from the group they belong to. An individual who encounters different role expectations experiences role conflict. Individuals frequently encounter role conflict in organizations (Robbins et al., 2013: 253). Role expectation is the expectation of other individuals about how an individual should behave in a certain environment. Role conflict is the situation where individuals face different role expectations from each other (Robbins & Judge, 2017: 285). Each group member has a specific role in the functioning of the group. However, the leader has a complementary role with his/her coordinating and motivating roles (Güney, 2007: 664).

Status

Some roles within the group are more valuable than others. These roles are respected more than others and thus provide a greater status to the person who undertakes that role (Hogg & Vaughan, 2014: 313). Status is a social ranking in a group that is determined by the position of individual characteristics within the group (Szilagyi & Wallace, 1990: 279). Status refers to the level of prestige, position or rank within a group (Robbins et al., 2013: 254). Status is the prestige and reputation of an individual. It expresses the importance of the position of the individual for the group (Aydın, 2014: 24). Status is an important source of motivation for individuals. Discrepancies between an individual's own status and other individuals' perceptions of this status cause behavioral consequences (Robbins & Judge, 2017: 290). It is important that individuals in the organization believe that the formal status system of the organization is appropriate. There should be equivalence between the status attributed by the organization to the individual and the rank/rank perceived by the individual. For example, when a manager in an organization receives lower wages than his/her employee, this may cause disharmony and disruptions in the organization (Robbins et al., 2013: 255). Therefore, it is possible to say that status has an important effect on the group structure and group behaviors.

Cohesiveness

Some groups seem to have a certain atmosphere of closeness or shared attitudes, behaviors and performance that is not found in other groups. This closeness, called group cohesiveness, refers to situations where the factors that are effective for group members to stay and join the group are more effective than the factors that are effective for members to leave the group (Szilagyi & Wallace, 1990: 282). Group cohesiveness is the degree to which group members influence each other and share the group's goals. As the individuals in the group are influenced by each other, the goals of the individuals become compatible with the goals of the group and this increases group cohesion (Robbins et al., 2013: 255). Group cohesiveness refers to the desire of individuals to stay in the group and their commitment to the group, and the commitment of group members occurs when the individual goals of the members are in harmony with the goals of the group (Hellriegel, Slocum & Woodman, 1995: 288). Many internal and external factors can increase group cohesiveness. Factors that increase group cohesiveness can be listed as (1) agreement on group goals, (2) frequency of interaction, (3) personal attractiveness, (4) intergroup competition, (5) positive evaluation. In a group with a high degree of commitment, individuals are happy to be together with others and adopt the group's goals. Individuals in these groups cooperate to achieve the goals. In groups with a low degree of commitment, individuals are not happy to be together, there are conflicts in the group and individuals do not want to help each other in achieving the goals (Can, et al., 2015: 178-179).

4. Development of the Group

Groups change over time. In organizations, the tasks and goals of the group change due to factors such as outputs, recruitment and promotion. As a result of changes in groups, group members gain experience while interacting with each other (George & Jones, 2012: 307). *Orientation*, the first stage in the group's development process, takes place when individuals come together for the first time. This stage is characterized by the beginning of communication patterns, the development of interdependencies between members, acquaintance with the structure and goals of the group, the expression of expectations, and members' acceptance of each other as members of the group. In the

second stage, *internal problem solving*, problems arising from the orientation stage are confronted and attempts are made to solve them. The potential for interpersonal conflict increases at this stage because individuals bring to the group different feelings about authority, power, dependencies and leadership structure. The *growth and productivity* phase is characterized by group activities that are almost entirely oriented towards achieving the group's goals. Group members become more cohesive, share ideas, provide feedback, explore actions related to the work to be done and share ideas (Szilagyi & Wallace, 1990: 270).

5. Outcomes in Group Behavior

Groups have an impact on the behavior of individuals. The group has an impact on an individual's attitude, productivity, tendency to take risks and commitment to norms (Bumin 1990). The impact of the group on individuals is briefly explained below (Güney, 2015: 156-159):

The normative effect of the group on the individual: Group members fulfil their roles by complying with group norms. Individuals gain some status when they belong to a group. Because of these statuses, when they are alone, they exhibit different behaviors than they do in the organization. Individuals do not want to accept group norms when they are alone. The reason for this is that instead of adopting group rules, these rules are accepted through obedience.

The effect of the group on the individual's attitude change: The group can change individuals' attitudes in a positive way, or it can have a preventive effect on attitudes. For example, if attitude change is in favor of the group, the group can increase the attitude change of individuals. However, if individuals' attitudes are contrary to the rules of the group and harmful for the group, the group may act in a way that prevents attitude change.

The effect of the group on the productivity of the individual: With reference to research, individuals work more efficiently when they are members of a group. The group can affect an individual's productivity positively or negatively. The presence of some people in the group can increase the productivity of the individual, while the presence of other people can decrease the productivity of the individual. However, in general, the individual makes more effort not to fall behind the group members and his/her productivity increases.

The group's propensity to take risks: Individuals with a risk-taking tendency are more effective for the group because they can convince others in the group to take risks. In addition, the fact that the responsibility belongs to the whole group and not only to a single individual lead individuals not to hesitate to take risks. Because while individuals avoid taking risks alone, taking risks as a group does not seem to be too objectionable for individuals.

As a result of interaction in groups, various gains are achieved and the performance of group members increases. In other words, effective work groups increase their potential performance over time by achieving process gains, that is, by finding better ways of working together (George & Jones, 2012: 334). Leaders greatly influence almost all aspects of group behavior. A leader often plays a key role in the relationship between the team and external groups or top management (Hellriegel, Slocum & Woodman, 1995: 291). In addition to providing psychological foundations to ensure individuals' commitment to the group, the group leader should ensure fairness in the allocation of tasks and develop group norms to increase effectiveness and efficiency in organizational outputs (Sığırı, 2011: 162).

Conclusion

Individuals want to be included in a group based on the need of sense of belonging. This is sometimes to avoid social exclusion and sometimes because it is easier to succeed with the group. Individuals sometimes want to belong to a group because of physical proximity and sometimes because of factors such as shared common values and common characteristics. By joining a group, individuals avoid social exclusion, isolation and loneliness. Many features such as the structure and characteristics of the group, individual characteristics of group members, norms of the group, roles, duties and statuses of individuals have an impact on group behavior. Therefore, individuals are

affected both by the group and affect the group. In order for a group to be effective, it must have clearly stated norms that unite and integrate group members and are accepted by group members. It is important that all members of the group are aware of their roles and responsibilities. Groups in which boundaries are clearly drawn, rules are clearly stated, and the duties and responsibilities of individuals are clearly presented survive longer. Therefore, it is important for the group to have these characteristics in order for the groups to be sustainable and to obtain positive outcomes as a result of group processes. In order to achieve this, both the members of the organization and the leader should work in coordination. All members of the group have various roles and tasks, but the leader has an important role in sustaining the group, ensuring its continuity and ensuring the highest efficiency and effectiveness. The group leader should motivate the group members within the framework of the norms of the group, guide them in ensuring the effectiveness of the group and ensure the development of the group. All organizations have to adapt to environmental changes and develop. Therefore, it is important for the leader to come up with practices to improve the group.

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