

## Determining the Value Hierarchies of the 'Z' Generation

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**Abstract:** This study aims to determine the value hierarchies of Z-generation students. The research was carried out in Ankara in November and December of 2021. The Rokeach Values Inventory was used to reveal the value rankings of the students, and 985 students studying at a public high school were reached within the scope of the research. The research was carried out using the cross-sectional survey model, one of the quantitative research methods. Obtained data were analyzed with the Mann-Whitney U test and Kruskal-Wallis H test. According to the analysis results, it was seen that the "Z" generation attaches the most importance to freedom, family security, afterlife security, happiness, and comfortable life, among the terminal values. It was observed that students preferred to be independent, honest, logical, courageous, and intellectual the most, respectively, among instrumental values.

*Keywords:* Generation Z, Values Education, Rokeach Values Inventory, Value Hierarchy, Root Values

### 'Z' Kuşağının Değer Hiyerarşilerinin Belirlenmesi

**Öz:** Bu çalışmanın amacı, Z kuşağı öğrencilerinin değer hiyerarşilerini belirlemektir. Araştırma Ankara'da 2021 yılının Kasım ve Aralık aylarında yürütülmüştür. Öğrencilerin değer sıralamalarını ortaya çıkarmak için Rokeach Değerler Envanteri kullanılmış ve araştırma kapsamında bir devlet lisesinde öğrenim gören 985 öğrenciye ulaşılmıştır. Araştırma nicel araştırma yöntemlerinden biri olan kesitsel tarama modeli kullanılarak yürütülmüştür. Elde edilen veriler Mann Whitney-U testi ve Kruskal-Wallis H testi ile analiz edilmiştir. Analiz sonuçlarına göre "Z" kuşağının terminal değerleri arasında en çok özgürlük, aile güvenliği, ahiret güvenliği, mutluluk ve rahat yaşama önem verdiği görülmüştür. Öğrencilerin araçsal değerler arasında sırasıyla bağımsız, dürüst, mantıklı, cesur ve entelektüel olmayı en çok tercih ettikleri görülmüştür.

*Anahtar Sözcükler:* Z Kuşağı, Değerler Eğitimi, Rokeach Değerler Envanteri, Değer Hiyerarşisi, Kök Değerler

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It is thought that the similar value judgments, behaviors, and lifestyles of individuals born in a specific period result from the fact that they were taken at a certain age (Erden Ayhün, 2013). Because each generation contains some characteristic features and value judgments, individuals show similar characteristics to the behaviors of the generation group in which they were born. At the same time, they exhibit different characteristics from the behaviors of the other generation group (Chen, 2010). Events such as the rapid development of technology, political-economic crises, and wars have had different effects on people. People have developed different personalities and behavior patterns depending on the events and conditions of their living period (Uğurbulduk & Efeoğlu, 2021). In particular, information and communication technologies, which enable the internet to become increasingly widespread, have affected people and their lifestyles at an unpredictable speed (Ayça, 2022). The reflection of this situation, which we can define as generational differences, on education is inevitable. Because of the changing and transforming world, generations' expectations, learning styles, and abilities also differ.

Focusing on today's children and youth is necessary to raise future architects. Today, the young population is called "Generation Z" and takes place as secondary and higher education students. The fact that the students in the schools are in the "Z generation" is related to many areas of life, from education to business life, due to their ratio in the current population. For these reasons, researchers and educators wonder about and examine this generation. In this context, there is an increase in the number of studies examining the characteristics, thoughts, values, and attitudes of the Z generation and their reflections (Mohr & Mohr, 2017; Pishchik, 2020; Pekel et al., 2020; Ayça, 2022; Aydın Aslaner & Aslaner, 2021; Topuz, 2022). Therefore, the value hierarchies of generations need to be researched, determined and adapted to education. From this point of view, this research focuses on determining the value hierarchies of the Z generation, the youngest generation of society.

### **General Characteristics of the Z Generation**

From the beginning of human history to the present, the group of people born in approximately the same years shared the conditions of the same age, thus, similar troubles and destinies. It was responsible for similar duties and is expressed as the concept of generation (Turkish Language Association, 2021). Individuals are divided into various generations according to the age they belong to. One of the methods that researchers generally use in determining the generations is to classify the dates of birth (Gümüş, 2020). Goh and Lee (2018) named individuals born between 1946-1964 as "Baby Boomers," individuals born between 1965-1979 as "X generation," those born between 1980-1998 "Generation Y," and individuals born between 1995-2009 referred to as "Generation Z." In another study, those born between 1995 and 2012 are called the Z generation (Kitchen & Proctor, 2015).

Generation Z is intertwined with technology as they were born in our age, dominated by technology in every aspect. For this reason, researchers also use names such as "iGen," "Next Generation," and "Instant Online" when describing the Z generation. This generation, which lives individually and alone, is defined as the first generation of the 21st century. Members of this generation are also called "Digital Children" (Çetin Aydın & Başol, 2014). According to TUIK's 2020 data, when age groups analyze the young population, it is seen that 31.3% of the young people are between the ages of 20-22 (Turkish Statistical Institute, 2021). Therefore, it is possible to say that the Z generation constitutes 31% of our young population.

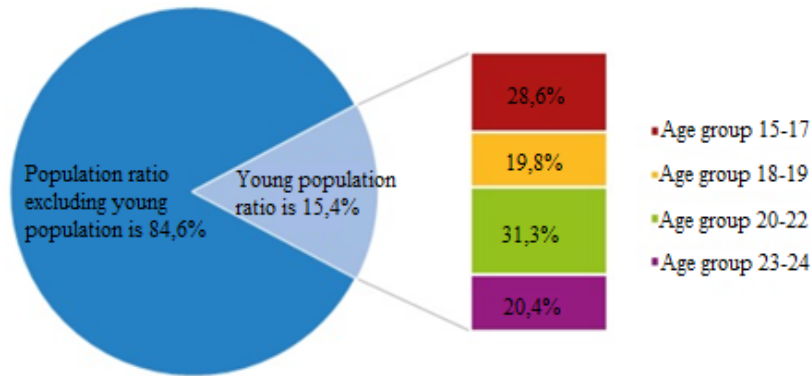


Figure 1. 2020 young population ratio by age group TURKSTAT, 2021

Generation Z is also called internet children, digital generation, digital natives, media generations, .com generation, Igen, or instant online (Levickaitė, 2010). The Z generation's most distinctive features are trust, freedom, individuality, dependence on technology, and speed. It is said that the Z generation is the children of the computer, telephone, and internet. The members of the Z generation, who are the future generation, can understand the rapidly changing world and continue to grow in it. Because the Z generation is very young, the evaluations made about them are usually hypothetical. Likewise, the personalities of the Z generation are not settled, and it is unknown which events may affect them in the future (Alp et al., 2019). What distinguishes Generation Z from other generations is their existence more connected with the electronic and digital world (Singh & Dangmei, 2016). Elmore (2019) defines Generation Z as post-modern individuals who are cynical, non-idealistic, realistic, private, enterprising, can run multiple businesses simultaneously, do not make eye contact, are hyper-aware, addicted to technology, and are hypersensitive to their environment. Generation Z, born into a techno-global world, has an excellent command of internet technology, while other generations are trying to adapt to this technology (Dimock, 2019). Generation Z plays internet-based games, socializes in this online environment where it is online 24/7, and constantly receives and shares information from the internet.

Internet technology can also add positive features to the Z generation; for example, this generation can simultaneously be interested in more than one subject. It is thought that hand, eye, and ear coordination can achieve the highest motor skill synchronization in human history. Their ability to take an interest in more than one subject is highly developed (Berkup, 2014). Generation Z likes to set up creative activities and games. Its distinctive features are socializing online, consuming fast, practical and fast, interacting, efficient, and result-oriented. They assume that everything possible is possible, and they have the will to do anything with their equipment. Therefore, the self-confidence of the Z generation is higher than the other generations. Thanks to advancing technology, they are expected to reach higher living standards and be more affluent than previous generations (Berkup, 2014). In addition, the prominent features of the Z generation individuals; seeing tablets, smartphones and computers as a part of their lives, being able to interpret information more quickly, preferring to live alone, acting with ambitious and materialistic thoughts, enjoying innovating, being secure but difficult to satisfy, being indecisive, less loyal, socializing on social media It can be listed as having an instant consuming profile, living fast, and being able to deal with more than one subject at the same time (Pekel et al., 2020). A very different environment has shaped generation Z than other generations in which society, economy, technology, and parenting play an essential role (Sladek & Grabinger, 2013). Generation Z consists of active problem solvers, independent learners, and advocates of social justice, justice, equality, and the environment (Eckleberry-Hunt et al., 2018). It is a matter of curiosity in what direction the value judgments of a generation with such characteristics are.

### Functions of Values

Value is any social, human, ideological, or religious-based sensation, idea, action, rule, or value internalized or kept alive in a community, a religion, a way of thinking, or among individuals (Sağnak, 2005). A person's values are criteria for evaluating human qualities and behaviors (Güngör, 1998). Rokeach (1973)

defined value as a persistent belief that particular behavior and purpose of existence is personally and socially preferable to its opposites. On the other hand, the value system is expressed as a permanent organization of beliefs about the purpose of existence or preferred behavior. Aydın (2003) summarizes the values as follows:

- Values are phenomena that include beliefs and therefore have transcendence.
- They allow individuals to rationalize their behavior and internalize it.
- They are generally interested in desired phenomena.
- Values cover all fields; main fields have unique values.
- Values are somehow social, although they have different contents.

Values affect our choices throughout our lives (Boydak-Özan & Öztürk, 2018, as cited in Schwartz, 1992). Also, values are core beliefs that help us distinguish between truth and error. By adding meaning to life, they enable us to live together with the individuals who make up society. Furthermore, values increase individuals' quality of life and are not innate; they are acquired through research and experience (Bostrom, 1991, as cited in Akbaş, 2004). In addition, values can be defined as a way of belief gained through experience and directs the attitudes and behaviors of individuals. Values cause stereotypes because they shape behaviors and are adopted by society (İçli, 2011). With this feature, values work as a means of regulation and supervision in society (Tezcan, 2012, as cited in Boydak-Özan & Öztürk, 2018). Moreover, values; are concepts that guide people's behavior, help us evaluate people and events, and explain people's behavior. Human values are the principles that guide a person's life or society Boydak-Özan & Öztürk, 2018).

Rokeach (1973) divides values into two-terminal values and instrumental values. There are 18 values in both groups. Objective values; are personal and social values that include the primary purposes of life. Accurate values, which are person or society-centered, can be defined as preferred targets—peace, equality, happiness, freedom, family security, etc. Instrumental values express the behaviors shown to reach the terminal values. Preferred behavior patterns are moral and competence values (Aktepe & Gündüz, 2019). Rokeach (1973; 1989) explained the role of values in social life by emphasizing three essential functions. He mentioned values' solid cognitive, affective, behavioral, and motivational components. In this context, he defined values as structures that facilitate adaptation in terms of behavior and destination; then, he touched on the function of values to protect the individual against differences and dangers, and finally, he talked about the role of values in meeting the individual's search for meaning, the need to know and understand (as cited in Morsümbül, 2014).

Studies on values have brought along many classifications. The most well-known of these classifications are those belonging to Nelson, Rokeach, Spranger, and Schwartz (Yazıcı, 2006). Rokeach noted that the confusion in terminology caused the dilemma in this field, where values often appeared under different terms in other disciplines. Rokeach established the theoretical link between values and behaviors and brought consensus to the area. Rokeach developed the values inventory for the first time in 1967 (Çalışkur & Aslan, 2013). Also, Rokeach captured the hierarchy of values by ranking values by respondents in Rokeach's Value Survey (Cheng & Fleischmann, 2010). In Rokeach's value studies, participants rank 18 terminals and instrumentals values according to their importance. Since its development, Rokeach's values inventory has been the most frequently used measurement tool (Aşan et al., 2008) and has become the basis of other value tools (Cheng & Fleischmann, 2010). The "Rokeach Values Inventory" (Appendix 1) was used in this study. Root values in curricula; are justice, friendship, honesty, self-control, patience, respect, love, responsibility, patriotism, and benevolence (Ministry of Education, 2022). It is seen that the root values, which are also defined as universal values, coincide with the values existing in the Rokeach Values Inventory.

This research is aimed to determine the value hierarchies of the Z generation. When the literature is searched, it is seen that there are similar studies (Şafak & Sadık, 2015; Pishchik & Spivachuk, 2020; Morsümbül, 2014; Kıran & Gül, 2016; Ayça, 2022; Titko et al., 2020). The different aspects of some of the studies carried out in this research are briefly mentioned below. For example, Kıran and Gül (2016) applied the "Schwartz Values Scale." Kıran and Gül tried to determine how high school students value hierarchies and whether there is a

relationship between these values and gender, school type, class, and place of residence. As a result, it has been determined that they give importance to understanding, tolerance, taking care of the welfare of people and nature, the protection and continuity of the existing relations of the society, and the individual's peace. In Kiran and Gül's research, a different scale was used, resulting in a different value hierarchy. Pishchik & Spivachuk (2020) applied the "Schwartz Values Scale" to 396 students in two other cities. It revealed that values of conservatism and self-transcendence were dominant in both groups. Titko et al. (2020) aimed to determine the importance of young workers with 392 Latvian students five years apart. A questionnaire consisting of fifty statements was developed and applied by the researchers. As a result of the research, it has been observed that all values are related to personal character traits and empathy regarding the matters that are vital today for the students representing the Z generation. However, it has been stated that the values that will be critical in five years are related to professional development and moving up the career ladder. De Jesus (2020) researched the personnel values of the Z generation. He revealed that the participants did not reflect on their values, showed emotional dependence on their parents, and personal values played an essential role in their lives. Świątek-Barylska (2019) carried out the relationship between the core values of the Z generation and Organizational Citizenship Behavior (OCB) among 491 participants using the Rokeach Values Inventory. Participants chose a comfortable life, family security, freedom, pleasure, and true friendship within the terminal values. Among the instrumental values, he preferred ambition, open-mindedness, forgiveness, benevolence, intelligence, logic, love, and kindness. Mahesh et al. (2021) discussed whether educational institutions should direct students to their careers' passions, professional success, or a balance that will make them happy. A qualitative study of 23 Indian students proposed a teaching/learning model based on the four superior Generation Z values (i.e., instrumental – career and passions; purposive – achievement and happiness). Şafak and Sadık (2015) applied the "Attitude Scale towards Universal Values" scale to examine and compare the attitudes of high school teachers and students toward universal values in terms of various variables. According to the results of this study, which aims to examine and compare the attitudes of high school students and high school teachers toward universal values in terms of various variables, their attitudes towards universal values are highly positive. In addition, it was concluded that the attitudes of female teachers and female students towards universal values were even more positive. The results of this research include individual values rather than universal values. Therefore, determining the value hierarchies requires multi-faceted research.

### **Purpose and Importance of the Research**

It is essential to consider who the individuals of each generation are, how they operate in the world, how they relate to authority, and how this affects the family, society, and life (Karadoğan, 2019, as cited in Swanzen, 2018). Much research has been done on the Z generation in the literature. However, these studies focus on issues such as the personality traits of generation Z, shopping tendencies, job expectations, likes, career preferences, and use of social media rather than determining value hierarchies. Even though the studies on the hierarchy of values were conducted on secondary school students, teacher candidates, and teachers, it was seen that there were limited studies (Buluç & Uzun, 2020; Çelikkaya & Kürümlüoğlu, 2017; Karatekin et al., 2013; Ulu-Kalın, 2017). In this context, since no study has been conducted with high school students, it is thought that the current study will contribute to the literature. In addition, it was seen that variables affecting value hierarchies were not considered, except for the study of Buluç and Uzun (2020). This study emphasized the effect of gender and class level on the value hierarchies of high school students. It is thought that the effects of family variables (parents' education level and economic income) are also determined by determining family value hierarchies. In addition, it is thought that the results obtained will contribute to structuring educational environments and improving curricula.

In this context, this research aims to determine the value hierarchies of high school students (Generation Z) and reveal whether demographic variables cause differences in these hierarchies. The sub-problems determined to achieve this goal are as follows:

1. How are the hierarchies of high school students towards terminal-oriented values?

2. Do the terminal-instrumental value hierarchies of high school students differ according to the gender variable?

3. Do high school students' terminal-instrumental value hierarchies differ according to the grade level variable?

## Method

### Model of the Research

In this study, in which the value hierarchies of high school students were tried to be determined, the cross-sectional survey model (which is a sub-title of the general survey model), which is one of the quantitative research methods, was used for the research (Fraenkel et al., 2012). General screening models are research models carried out on the universe or a sample taken from it to reach an available judgment about the universe in a universe consisting of many elements. In cross-sectional research, the development of the variable is determined by observations to be made on separate large sample groups representing various developmental stages at a time (Karasar, 2012; Kaptan, 1998).

### Population and Sample Group of the Research

The target population of this research consists of all high school students in the 2021-2022 academic year in Turkey, the accessible universe consists of high school students in Ankara, and the sample consists of students studying at a high school in Ankara. The convenience sampling method was used in the sample selection of the study. The reason for this is that this method accelerates the research. Because in this method, the researcher chooses a situation that is close and easy to access (Fink, 1995). In Ankara, which is the accessible universe of the research, the sample size required for the theoretical universe size according to the total student size (MoNE 2021) in the period of the study is 663 people in a population of 500,000 people (Cohen et al., 2000). Considering that the data collection tool in the school chosen for the study could not be answered for various reasons or it was answered incompletely, it was decided that the total number of students in the sampling school should be at least 1000 for the sample to reach the number representative of the universe. All students were selected from among those who voluntarily participated in the research. At the end of the application, 17 data collection forms that were answered incompletely were divided, and 985 data collection tools were deemed valid. Descriptive statistics regarding the demographic data of the students constituting the study group are given in Table 1.

**Table 1.** Descriptive Statistics of the Study Group of the Research

| Grade Level | Gender |    |      |    | Total |
|-------------|--------|----|------|----|-------|
|             | Female |    | Male |    |       |
|             | f      | %  | f    | %  |       |
| 9th Grade   | 101    | 53 | 88   | 47 | 189   |
| 10th Grade  | 99     | 58 | 72   | 42 | 171   |
| 11th Grade  | 236    | 64 | 133  | 36 | 369   |
| 12th Grade  | 118    | 46 | 138  | 44 | 256   |
| Total       | 554    | 56 | 431  | 44 | 985   |

According to Table 1, it is seen that 56% of the students who form the study group are female, and 44% are male; It is seen that 19% of them are in the 9th grade, 17% in the 10th grade, 38% in the 11th grade, and 26% in the 12th grade.

### Data Collection Tools

#### *Rokeach Value Inventory*

The Rokeach value inventory consists of two parts (Appendix 1). The first part contains the participants' demographic information, and the second includes the inventory items. The inventory (Form A), the first form developed by Milton Rokeach in 1967, consists of 12 terminal and instrumental values. This study was later designed, forming B, C, D, and E. In this study, the last revision E form was used (Rokeach, 1973). The

"Rokeach Values Inventory" (Form B) was brought into Turkish by Çalışkur and Aslan (2013) by conducting a validity and reliability study. Correlative and factor analysis methods were used in the reliability and validity study of the Rokeach Values Inventory. To determine the test-retest reliability of the test, first of all, the test was administered to the same student group at two different times. The analysis showed no statistically significant difference between the first and second applications in objective values. Spearman Correlation Coefficient was calculated to find the test-retest reliability coefficient of the inventory. It was determined that the reliability coefficients ranged between  $Rho=.18$  and  $.81$  for the terminal values and between  $Rho=.16$  and  $.67$  for the instrumental values. Significant correlation results were obtained for all items (de Winter et al., 2016; Prion & Haerling, 2014). Within the scope of the validity study, the  $KMO=(.81)$  value obtained as a result of the Kaiser-Meyer-Olkin analysis to determine the construct validity level showed that the number of members of the study group was sufficient for factor analysis. As a result of the Bartlett test, a significant effect of  $\chi^2=2871.394$  ( $p<.001$ ) was obtained (Horn & Engstrom, 1979; Williams et al., 2010). On the other hand, the seven factors obtained from the factor analysis explain 45,156% of the variance of the variable of values that the test aims to measure (Table 2).

**Table 2.** Rokeach Values Inventory Factor Analysis Result

| Factor  | Item                 | Positive factor load | Item               | Negative factor load | Explained variance |
|---|----------------------|----------------------|--------------------|----------------------|--------------------|
| Factor 1<br>(Rushed values/Delayed reward values)                     | a comfortable life   | ,713                 | equality           | -,691                | 8,112              |
|   | pleasure             | ,608                 | a world in peace   | -,612                |                    |
|   | social approval      | ,538                 | broad-minded       | -,419                |                    |
| Factor 2<br>(Competitive values/Religious-moral values)               | caressing            | ,678                 | intellectual       | -,611                | 7,323              |
|   | cheerful             | ,543                 |                    |                      |                    |
|   | happiness            | ,512                 |                    |                      |                    |
|   | true friendship      | ,441                 |                    |                      |                    |
| Factor 3<br>(Self-limitation/ Self-expansion)                         | forgiving            | ,409                 | mature love        | -,739                | 6,782              |
|   | responsible          | ,639                 | imaginative        | -,609                |                    |
| Factor 4<br>(Social values/Personal orientation values)               | wisdom               |                      | wisdom             | -,509                | 6,571              |
|   | clean                | ,513                 | independent        | -,691                |                    |
|   | submissive           | ,468                 | brave              | -,523                |                    |
|   | logical              | ,447                 |                    |                      |                    |
|   | to be able           | ,422                 |                    |                      |                    |
| Factor 5<br>(Social values/Family values)                             | kind                 | ,409                 |                    |                      | 5,771              |
|   | self-respect         | ,639                 | an exciting life   | -,471                |                    |
|   | inner peace          | ,542                 |                    |                      |                    |
| Factor 6<br>(Respect values / Love values)                            | self-controlled      | ,501                 | Afterlife security | -,731                | 5,405              |
|   | freedom              | ,638                 | family safety      | -,601                |                    |
| Factor 7<br>(Internal orientation values/External orientation values) |                      |                      | national security  | -,503                | 5,192              |
|   | sense of achievement | ,682                 |                    |                      |                    |
|   | ambitious            | ,538                 | honesty            | -,489                |                    |
|   | the world of beauty  | ,520                 |                    |                      |                    |

It is seen that the results obtained in Table 2 overlap with the results obtained by Çalışkur and Aslan (2013). In the study conducted by Çalışkur and Aslan (2013), the ratio of the variance explained for factor 1 was 7,771; factor 2 was 6,618; factor 3 was 6,231; factor 4 was 6,012; factor 5 was 5,776; factor 6 was 5,477, factor 7 was 5,451, and total variance was 43,336.

The Rokeach Value Inventory is of sorting type, and individuals rank the values specified in the lists according to their importance. Each list is handled separately. There are 18 values in two separate lists in the inventory. List 1 consists of terminal values, and List 2 consists of instrumental values (Appendix 1). The values included in the lists are as follows:

**Table 3.** *Rokeach Values Inventory (Form E) Sub-Dimensions and Values Included*

| Terminal Values              |                         | Instrumental Values    |                        |
|------------------------------|-------------------------|------------------------|------------------------|
| P1: family safety            | P10: peace of mind      | I1: independence       | I10: self-control      |
| P2: afterlife security       | P11: self-respect       | I2: forgiveness        | I11: politeness        |
| P3: a world in peace         | P12: happiness          | I3: being brave        | I12: being sensible    |
| P4: the sense of achievement | P13: mature love        | I4: honesty            | I13: to be able        |
| P5: wisdom                   | P14: freedom            | I5: intellectuality    | I14: being cheerful    |
| P6: equality                 | P15: a comfortable life | I6: being broad-minded | I15: compassion        |
| P7: the world of beauty      | P16: social approval    | I7: being ambitious    | I16: being responsible |
| P8: true friendship          | P17: national security  | I8: being imaginative  | I17: cleaning          |
| P9: an exciting life         | P18: pleasure           | I9: submissiveness     | I18: benevolence       |

Source: Çalıřkur& Aslan, 2013.

During the implementation process, the participants examine each section within themselves and make a ranking. After reviewing all of the value expressions in the first section, the participants were asked to select the five values they considered most important among these values. Then, each participant was asked to number 1 to 5 for the five values they chose, continuing by writing the number '1' for the most important value and the number '2' for the second most important value. When the first group numbering is finished, the participants are asked to move on to the second group and do the same for the values included here. Along with this scale, data were collected from the participants with the personal information form prepared by the researchers. During the data collection process, the inventory was applied face to face, and the participant's questions about the list and the information form were answered during the application.

### The Role of Researchers

There are three different researchers in the study. One of the researchers works as a teacher at the school where the data were collected. During the data collection phase, the researcher made it clear at the beginning of the study that he had no mission to evaluate or grade the participants. It is aimed that the participants trust the researcher by expressing that the use of the collected data will be limited only to the research and that personal data will not be shared with third parties.

### Analysis of Data

Since the data collection tool used within the scope of the research is of the sorting type, the data obtained from the participants were analyzed using descriptive statistical techniques (frequency, percentage, mean and standard deviation), Mann-Whitney U, and Kruskal-Wallis tests. First, frequency and percentage calculations were made to determine the values the participants preferred most in the first place and the mean. Standard deviation calculations were made to rank their value preferences. It was decided that the data obtained from the study were not normally distributed due to the analyses made based on examining the skewness and kurtosis coefficients and the histogram, box-line, and Q-Q graphs. For this reason, the Mann-Whitney U test and the Kruskal-Wallis H test, non-parametric tests, were used (Howitt & Cramer, 2011; Mertler & Vannatta, 2005; Tabachnick & Fidell, 2014; Thode, 2002). The Mann-Whitney U test was used to determine the differences between the value rankings of the students according to gender, and the Kruskal-Wallis H test was used to determine the differences between the value rankings according to grade level.

### Assumption

It is assumed that the data collected in the research reflect the truth.

### Limitations

The sample of this research is limited to students in a high school in Ankara in the 2021-2022 academic year. The independent variables of the study were limited by gender and class level.

### Ethical Permissions of Research

This study observed research ethics principles, and necessary ethics committee permissions were obtained. Ethics Committee approval was obtained from Ankara/Yenimahalle District Directorate of National Education, dated 21.12.2021, and numbered within the scope of ethics committee permission E-68191173-



310.01.01-39481395.

### Results

In the study, analyses related to each sub-problem were expressed in titles.

#### What Are the Hierarchies of High School Students for Terminal-Instrumental Values?

To answer the first sub-problem, the frequencies and percentages of the five most preferred values were calculated as a result of the rankings made by the students. The results are summarized in Table 4.

**Table 4.** *The Five Values Most Preferred by High School Students in the First Place*

| Terminal Values    |     |      | Instrumental Values |     |      |
|--------------------|-----|------|---------------------|-----|------|
| Value              | f   | %    | Value               | f   | %    |
| Freedom            | 160 | 16,2 | Independent         | 243 | 24,7 |
| Family safety      | 155 | 15,7 | Honest              | 172 | 17,5 |
| Afterlife security | 147 | 14,9 | logical             | 101 | 10,3 |
| Happiness          | 76  | 7,7  | Brave               | 65  | 6,6  |
| A comfortable life | 72  | 7,3  | Intellectual        | 65  | 6,6  |

When Table 4, which shows the values that students prefer in the first place, is examined, the most common values are freedom (16,2%), family safety (15,7%), afterlife security (14,9%), and happiness (7,7%), a comfortable life (7,3%); As for instrumental values, they preferred to be independent (24,7%), honest (17,5%), logical (10,3%), courageous (6,6%) and intellectual (6,6%), respectively.

Preference rank means and standard deviations were calculated for the participants regarding how the values were ordered hierarchically. In this calculation, the low value of the average preference order indicates that the value is preferred in higher ranks. The obtained results are given in Table 5.

**Table 5.** *Ranking of High School Students' Value Preferences*

| Terminal Values |                      |         |                    | Instrumental Values |                 |         |                    |
|-----------------|----------------------|---------|--------------------|---------------------|-----------------|---------|--------------------|
| Sequence Number | Values               | Average | Standard deviation | Sequence Number     | Values          | Average | Standard deviation |
| 1               | Afterlife security   | 2,17    | 1,53               | 1                   | Independent     | 2,3     | 1,5                |
| 2               | Family safety        | 2,26    | 1,29               | 2                   | Honest          | 2,4     | 1,4                |
| 3               | Freedom              | 2,60    | 1,38               | 3                   | Intellectual    | 2,8     | 1,4                |
| 4               | Self-respect         | 2,96    | 1,34               | 4                   | Logical         | 2,9     | 1,4                |
| 5               | Wisdom               | 3,00    | 1,41               | 5                   | Ambitious       | 3,0     | 1,4                |
| 6               | Happiness            | 3,03    | 1,41               | 6                   | Submissive      | 3,0     | 1,6                |
| 7               | Inner peace          | 3,05    | 1,40               | 7                   | Brave           | 3,0     | 1,4                |
| 8               | A world in peace     | 3,09    | 1,45               | 8                   | Imaginative     | 3,1     | 1,3                |
| 9               | Sense of achievement | 3,13    | 1,34               | 9                   | Kind            | 3,1     | 1,2                |
| 10              | Comfortable life     | 3,14    | 1,37               | 10                  | Broad-minded    | 3,2     | 1,4                |
| 11              | Pleasure             | 3,20    | 1,38               | 11                  | Forgiving       | 3,2     | 1,4                |
| 12              | Equality             | 3,29    | 1,27               | 12                  | Happy           | 3,3     | 1,4                |
| 13              | National security    | 3,33    | 1,21               | 13                  | Self-controlled | 3,3     | 1,3                |
| 14              | Mature love          | 3,48    | 1,38               | 14                  | Responsible     | 3,3     | 1,3                |
| 15              | True friendship      | 3,49    | 1,23               | 15                  | Caressing       | 3,4     | 1,3                |
| 16              | An exciting life     | 3,49    | 1,33               | 16                  | Helpful         | 3,5     | 1,3                |
| 17              | Social approval      | 3,61    | 1,29               | 17                  | Able            | 3,5     | 1,2                |
| 18              | World of beauties    | 3,83    | 1,09               | 18                  | Clean           | 3,6     | 1,4                |

The order of importance for the students according to the average order of preference of the terminal and instrumental values is shown in detail in Table 6. Accordingly, the terminal values at the top are as follows: afterlife security (avg.=2.17; Sd.= 1.53), family security (avg.=2.26; Sd= 1.29) and freedom (avg.= 1.29). =2.60; Ss=1.38); independent of instrumental values (mean=2.3; Sd= 1.5), honest (mean=2.4; Sd= 1.4) and intellectual (mean=2.8; Sd= 1.4).

On the other hand, the objective values at the end of the list can be listed as follows: an exciting life (mean = 3.49; Sd = 1.33), social approval (mean = 3.61; Sd = 1.29) and a world of beauty (mean = 3.61; Sd = 1.29). mean=3.83; Sd=1.09); instrumental values are helpful (mean=3.5; Sd= 1.3), able (mean=3.5; Sd= 1.2) and clean (mean=3.6; Sd= 1.4).

According to this, while most of the students participating in the research agree with the value of afterlife security from the terminal value, they at least agree with the value of the world of beauties. As for the instrumental values, the highest participation in the independent value and the least in the clean value were observed.

### Do the Terminal-Instrumental Value Hierarchies of High School Students Differ According to the Gender Variable?

There are some differences according to gender in the value rankings of students studying in high school. Whether these differences were statistically significant was examined with the Mann-Whitney U test. As a result of the analyses, the findings regarding the two values, which were determined to significantly differ between the two groups in terms of order of importance, are presented in Table 6.

**Table 6.** Mann Whitney-U Test Results of Terminal and Instrumental Values According to Students' Gender

|                     | Variable    | Gender | N   | Average Rank. | Rank Sum | U        | p     |
|---------------------|-------------|--------|-----|---------------|----------|----------|-------|
| Terminal Values     | Inner peace | Male   | 105 | 162,96        | 17110,50 | 8089,50  | ,011* |
|                     |             | Female | 187 | 137,26        | 25667,50 |          |       |
|                     | Freedom     | Male   | 207 | 289,94        | 60018,00 | 30027,00 | ,013* |
|                     |             | Female | 331 | 256,72        | 84973,00 |          |       |
|                     | Pleasure    | Male   | 162 | 134,26        | 21750,50 | 8547,50  | ,001* |
|                     |             | Female | 134 | 165,71        | 22205,50 |          |       |
| Instrumental Values | Honest      | Male   | 206 | 255,30        | 52592,00 | 23,937   | ,010* |
|                     |             | Female | 268 | 223,82        | 59983,00 |          |       |
|                     | Broad Sight | Male   | 142 | 208,76        | 29644,50 | 14588,50 | ,016* |
|                     |             | Female | 240 | 181,29        | 43508,50 |          |       |
|                     | Ambitious   | Male   | 158 | 131,23        | 20734,50 | 8173,50  | ,004* |
|                     |             | Female | 128 | 158,64        | 20306,50 |          |       |

\*p<.05

As seen in Table 6, there are significant differences between genders through the terminal values as; inner peace (U=8089.50; p<.05), freedom (U=30027; p<.05), and pleasure (U=8547.50; p<.05); and through the instrumental values as; honest (U=23,937; p<.05), broad-minded (U=14588.50; p<.05) and ambitious (U=8173.50; p<.05). The fact that the rank averages are small means that this value is preferred for higher ranks in the relevant gender. Accordingly, female students choose the values of inner peace, freedom, honesty, and broad-mindedness in higher ranks than male students. On the other hand, male students prefer pleasure and ambitious values higher than female students; in other words, they attribute more importance to these values than female students.

### Do High School Students' Terminal-Instrumental Value Hierarchies Differ According to the Grade Level Variable?

According to the grade level, some differences exist in the value rankings of the students studying in high education. Whether these differences were statistically significant or not was examined with the Kruskal-Wallis H test.

As a result of the analyzes made, it was seen that there was no significant difference in the order of importance according to the grade level.

### Discussion, Conclusion, and Suggestions

This study determined the value hierarchies of high school students who are members of the Z generation. The Rokeach Values Inventory was used to reveal the value rankings of the students, and within

the scope of the research, 985 students studying at a public school were reached. The cross-sectional survey model, one of the quantitative research methods, was considered suitable for the research.

The first sub-problem of the research, "How are the hierarchies of high school students for terminal-instrumental values?" is in the form. When the findings for the question are examined, they preferred that the student's primary values are freedom, family security, afterlife security, happiness, and comfortable life.

The fact that **freedom** (free choice and independence) is preferred the most among the terminal values makes us think that the Z generation feels intense pressure in many areas of life. This generation feels lonely in the family, refrains from expressing themselves, and generally describes their parents' behavior as conservative and sometimes reactionary (Duman, 2021). Generation Z does not like pressure and authority because it is a generation that wants to make their own choices and make everything they do fun and enjoyable (Akduman, 2020). According to Tapscott (2009), this generation has eight unique qualities: collaboration, freedom, scrutiny, personalization, fun, honesty, speed, and innovation. Freedom and freedom of choice are essential for Generation Z. They want to customize something, and they also want to do something themselves (Karadoğan, 2019). In addition, the Z generation wants to learn independently, and under the conditions they determine, their self-centered thinking style is stronger than other generations. They generally want to live alone (Altunbay & Bıçak, 2018). Kaya et al. (2017) examined the value orientations of high school students; it was concluded that value preferences have changed from past to present, and young people attach importance to self-direction value, which includes individual novelty seeking independent thinking and acting. In Doğan's (2018) research, the order of values of adolescents; are religiosity, benevolence, security, self-direction, universality, conformity, achievement, tradition, stimulation, power, and hedonism. The freedom terminal value coincides with some of the research results in the literature. Pekel et al. (2020) concluded in their research that Generation Z students are not inclined to take orders. It is considered normal for this generation, living in the same period, to exhibit similar behaviors regarding freedom.

Family security is in second place among the terminal values, making us think that the family is a crucial concept for the students (Generation Z). It also coincides with the results of the literature that the family ties of the members of this generation are strong, and family security is generally considered necessary by the members of this generation. Duman (2021), in his research on the family perception of the Z generation, concluded that this generation perceives the family as the basis of society and that society adopts the dominant family understanding. In the study of Buluç and Uzun (2020), in which they explained the value hierarchies of preservice teachers when the participants were asked to rank the most important values regardless of their groups, almost all of these groups saw the protection of the family as one of the essential values and stated this. Generation Z is a generation their parents overprotected (Gabriellova & Buchko, 2021), isolated as never before, and planned for the future (Tulgan, 2013). For this reason, it is thought that this generation is fond of family, and it can be said that this research shows similarities with the results of the literature.

Participating students (Generation Z) chose **afterlife security** as the third among the terminal values. It can be said that the Z generation attaches importance to issues such as happiness in the afterlife and going to heaven. In the study by Gökçe and Tekin (2021) named "Religious Tendencies of Generation Z," it was observed that generation Z placed more emphasis on the individual dimension of religion. Generation Z defines religion more as a reason that benefits them and helps them feel good; When we look at the explanations of this generation, it is seen that religion is also examined in terms of worship, knowledge, and morality. In addition, it was concluded that the prayers made the Z generation feel positive emotions; this generation cares about obtaining religious knowledge. They generally research religion online and ignore their friends' religious beliefs and lives when choosing friends. Yemez (2022) applied the research titled "The effect of religious commitment, environmental awareness, and extroversion on purchasing green products" to the Z generation and observed that the Z generation also had religious attachments. It is stated that as the world modernizes, religion will lose its importance, there will be a decrease in people's religious commitment, and there will be an increase in the number of those who do not adopt any religion (Bullard, 2016). However, in this research and some studies in the literature, it is seen that the Z generation attaches importance to religion. Yapıcı (2020), in her research on "Religion and religiosity perceptions of young people in the clamp of doubt

and belief," draws attention to the fact that young people's relations with religion are quite complex and diverse. Most young people either seek peace by taking refuge in traditional religion or try to reconcile the demands of the modern and post-modern world by questioning their religious beliefs and practices. The importance that the participants attribute to afterlife security can be evaluated within the scope of Yapıcı's discourses.

According to this research's findings, happiness and **comfortable life** are among the top five values attributed to the most. While a person may be unhappier when he lives alone, the good friendships established for the Z generation, who love sociability very much, affect happiness positively. On the one hand, the developed world, where the Z generation was born and lived, and with its increasing opportunities, positively affects the quality of life of people and supports their happiness by increasing their positive emotions. On the other hand, while improving material and spiritual opportunities and developing technology make people's lives easier, they do not guarantee continuous happiness. While health, safety, and increasing chances in all areas of life push people to a more prosperous life day by day, happiness is positioned as a person's choice (Akduman, 2020). Akduman's (2020) discourses coincide with this research results, the Z generation's desire to have a happy and comfortable life. Taş et al. (2017) stated that the Z generation, who grew up in the shadow of technology and accessible information, is fast and hasty and wants everything, everywhere, and immediately. This view supports that the Z generation tends to have a comfortable life. Values are interrelated (Özensel, 2003). Instrumental values; are behavioral styles/forms adopted in achieving terminal values; terminal values are the essential life values that individuals aim to achieve (Çekici et al., 2018). According to the findings of this research, freedom-independence and happiness-comfortable life among the terminal-instrumental values are among the first five values preferred by the students. The relationship between the selected values can be evaluated within the scope of the statements of Çekici et al. (2018).

Tanriverdi and Ulu (2018) revealed in their research on high school students value orientations that students scored the highest average on self-direction (creativity, freedom, choosing their own goals, curiosity, and independence). It was seen that students preferred to be independent (24.7%), honest (17.5%), logical (10.3%), courageous (6.6%), and intellectual (6.6%), respectively, from the instrumental values. Participants gave the first place to the value of independence among the means values. Generation Z is the youngest generation to come across as free-spirited, entrepreneurial, with weak organizational commitment, and active and independent individuals (Güleç-Bekman, 2021; Pekel et al., 2020). Danışman and Gündüz (2018) listed the working principles of the Z generation as being fond of independence, collaboration, capable of doing many things at the same time, and having high expectations. According to Coşkun (2019), generation Z wants to determine where, how, and what kind of education they wish to receive and how they will learn. Also, despite their ability to make the most of globalization, this generation prefers to work alone and independently rather than being involved in teamwork (Addor, 2011). From this point of view, the selected instrumental values can be evaluated within the scope of education. Therefore, the results of this research are in line with the literature.

Participants emphasized the value of honesty in second place among instrumental values. The results of this research also coincide with the value of honesty, among the ten root values determined by the Board of Education and Discipline (BoED). BoED, the root values aimed to be transferred to students; justice, friendship, honesty, self-control, patience, respect, love, responsibility, patriotism, and helpfulness (BoED, 2017, p.8). Also, Titko et al. (2020) found that "Honesty" is among the core values in the perspective of Generation Z. The discourses of Titko et al. coincide with the results of this research. Participants gave fourth place to the value of courage among the instrumental values. According to Social Business Turkey (2022), 60% of Generation Z want their job to affect the world and make a difference. The participants' tendency to value courage can be evaluated within the scope of these discourses. However, in the research of Yenişol (2021), The three highest individual values among students are respect, justice, cooperation, and the lowest three personal values are courage, patience, and forgiveness. This situation does not coincide with the results of this research. Pishchik and Spivachuk (2020) conducted a study on high school students in two different regions of Russia. They concluded that the differences between groups are mainly related to the value structure, and the area of residence of the participants also plays a role. The results can be evaluated in this context.

The participants gave fifth place to the intellectual value among the instrumental values. This research findings on this value, seen as both the desire to be intellectual and the thought of being intellectual, align with the literature. Levickaitė (2010) concluded that Generation Z follows the same digital trends and worldwide changes. Generation Z is the most equipped generation to date in terms of technology, global relations, and education (Kaplan & Çarıkçı, 2018). Generation Z can educate themselves and learn how to access information (Social Business, 2022), so they can be intellectual. Generation Z finds it essential to have a high level of education. Therefore, it is thought that they will be more educated individuals than previous generations (Coşkun, 2019).

In the literature, from time to time, various studies related to the value judgments of the Z generation have been done (Asar et al., 2020; Kıran & Gül, 2016; Şafak & Sadık, 2015). It is seen that the results of these studies emphasize more universal values. This research has observed that the value hierarchies of the Z generation are generally shaped around individual values. Global events and developments will affect different countries at different rates and intensities. Therefore, generational characteristics may be cultural and country-specific (Dwidienawati & Gandasari, 2018). The results can be evaluated in this context.

The second sub-problem of the research is, "Do high school students' terminal-instrumental value hierarchies differ according to gender?" When the questions' findings are examined, female students emphasize the values of inner peace, freedom, honesty, and broad-mindedness more than male students. On the other hand, male students prefer pleasure and ambitious values higher than female students, and they attach more importance to these values. Therefore, in this study, there are differences between the value preferences of men and women. In Doğan's (2018) research on the value orientations of adolescents, it was revealed that male students attach more importance to the values of "power, hedonism, and stimulation," while female students attach more importance to the values of "universality, conformity." Buluç and Uzun (2020) revealed that gender, grade level, mother and father education level, income level of their families, and the importance of Z-generation classroom teacher candidates are similar. Tanrıverdi and Ulu (2018), who investigated the relationship between the meaning and purpose of life and value orientations in high school students, revealed that the average scores of girls in benevolence and universalism and boys in the power factor were significantly higher. In Kısaç and Turan's (2015) research on high school students' value orientations, the religious value scores of female students were significantly higher than male students. Also, Kaya et al. (2017) revealed that the gender of the students is not related to the adopted human values. İnan Kılıç (2020) reached a similar conclusion. In his research to determine the moral-human values tendency of high school students, no significant relationship was observed between the mean score of all sub-values and the gender variable. As can be understood from the studies above, it is seen that gender alone is not the determining factor in determining the values. However, in this study, it can be said that the gender factor makes a difference in value tendencies. In the literature, no research has been found that directly examines the gender and value judgments of the Z generation. Of course, an in-depth research is needed on this subject.

The third sub-problem of the research is, "Do high school students' terminal-instrumental value hierarchies differ according to the grade level variable?" When the findings for the question were examined, and as a result of the analyzes made, it was seen that there was no significant difference in the order of importance according to the grade level. The study "Spiritual Values and Education" in high schools conducted by Yenyol (2021) determined that the age factor did not affect values. This result is in line with Buluç and Uzun's (2020) and Yenyol's (2021) research results. This can be explained by the small age difference between the participants. In addition, it is thought that studies need to be conducted with samples with a large age difference.

Learning about new generations can help educators better understand and meet the educational needs of current students. The results obtained from this research can be used to design the educational environments of the Z generation, guide their career choices, and design the curricula. Preservice and current teachers can be provided training on values education to be more knowledgeable about this subject. It is thought that the research results can be considered within the scope of the aims of values education at the high school level of the Z generation. This situation can be investigated since it is observed that the selected values

are primarily individual, and universal values are not preferred much. Activities for the education of universal values can be increased. Value education should be given to students by doing-experiencing and discussing in class rather than through verbal transfer. Research can be conducted to design a values education program to develop universal values.

### Declarations

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## Appendix 1. Rokeach Value Inventory

### A. Demographic Information Form

Name and surname:

Class: 9th-grade  10th-grade  11th-grade  12th grade

Gender: Female  Male

### B. Rokeach Value Inventory

Dear participant,

The purpose of this study is to determine your hierarchies of terminal-instrumental values.

You are asked to examine and sort each section within itself. First of all, after reviewing all of the value expressions in "List I," you should choose the five values that you consider most important among these values. Then, write the number '1' to the value you consider the most important and the number '2' to the value you consider the second most important and number it from 1 to 5 for the five values you choose. When List I enumeration is finished, you are requested to switch to List II and do the same for the values here. There are no right or wrong answers to the questions. The aim is to reveal your views. Your answers will only be used as data in scientific research, and your personal information is not requested. Your sincere answers to the questions are essential for the reliability of the research results. Thank you in advance for your contribution to the research.

#### LIST I:

|    |  |   |
|----|--|---|
| 1  |  | SAFETY OF THE AFTERWORD<br>happiness in the afterlife, going to heaven                              |
| 2  |  | FAMILY SAFETY<br>ensure the reassurance of family members   |
| 3  |  | A WORLD IN PEACE<br>a world without war, without conflict   |
| 4  |  | FEELING OF SUCCESS<br>a lasting feeling of having done well in life                                 |
| 5  |  | WISDOM<br>a mature, philosophical view of life  |
| 6  |  | EQUALITY<br>fraternity, equal opportunity for all   |
| 7  |  | TRUE FRIENDSHIP<br>close friendship   |
| 8  |  | WORLD OF BEAUTY<br>A world with a beautiful nature, where aesthetic values and fine arts are valued |
| 9  |  | AN EXCITING LIFE<br>a colorful and active life  |
| 10 |  | INNER PEACE<br>be at peace with oneself, away from internal conflicts                               |
| 11 |  | SELF RESPECT<br>self-respect, self-respect  |
| 12 |  | HAPPINESS<br>be content with one's situation  |
| 13 |  | MATURE LOVE<br>sexual and spiritual intimacy  |
| 14 |  | FREEDOM<br>independence, free choice  |
| 15 |  | A COMFORTABLE LIFE<br>a prosperous life without any financial difficulties                          |
| 16 |  | SOCIAL APPROVAL<br>to be appreciated and respected by others  |
| 17 |  | NATIONAL SECURITY<br>protecting the country from attacks  |
| 18 |  | PLEASURE<br>an enjoyable, pleasurable life  |

## LIST II:

|    |  |   |
|----|--|---|
| 1  |  | INDEPENDENT<br>self-confident, self-sufficient      |
| 2  |  | FORGIVING<br>Not holding grudges                    |
| 3  |  | BRAVE<br>defending one's beliefs without hesitation |
| 4  |  | HONEST<br>sincere, truthful                         |
| 5  |  | INTELLECTUAL<br>bright, intelligent                 |
| 6  |  | BROADSIGHTED<br>open-minded, unprejudiced           |
| 7  |  | IMAGINE STRONG<br>creative                          |
| 8  |  | AMBITIOUS<br>persevering, persevering, diligent     |
| 9  |  | SUBMISSIVE<br>mild-mannered, rule-abiding           |
| 10 |  | SELF-CONTROLLED<br>restrained, self-controlled      |
| 11 |  | KIND<br>gentle, decent                              |
| 12 |  | LOGICAL<br>correct, consistent reasoning            |
| 13 |  | COMPETENT<br>enough, skillful                       |
| 14 |  | HAPPY<br>cheerful, hilarious                        |
| 15 |  | CARESSING<br>affectionate, friendly, loving         |
| 16 |  | SORRESPONSIBLE<br>reliable, safe                    |
| 17 |  | CLEAN<br>orderly, organized                         |
| 18 |  | BENEVOLENT<br>working for the good of others        |