EXAMINING COGNITIVE STRUCTURES OF SECONDARY SCHOOL STUDENTS REGARDING CONCEPTS RELATED TO MULTICULTURAL EDUCATION

Research article

Sevda Yılmaz (0000-0002-4489-2501)

sevdayilmaz@bayburt.edu.tr

Bayburt University, Turkey

Biodata:

Sevda Yılmaz is an Assistant Professor at the Faculty of Education at Bayburt University, Faculty of Education, Department of Turkish and Social Sciences Education.

EXAMINING COGNITIVE STRUCTURES OF SECONDARY SCHOOL STUDENTS REGARDING CONCEPTS RELATED TO MULTICULTURAL EDUCATION

Sevda Yılmaz

sevdayilmaz@bayburt.edu.tr

Abstract

The aim of this study was to investigate the cognitive structures of secondary school students regarding concepts related to multicultural education. The study was conducted through a survey design. The study group consisted of 189 eighth-grade students studying in secondary school. Out of the 189 participants, 97 were female and 92 were male. The criterion sampling method, one of the purposeful sampling methods, was used in the selection of the study group. Word Association Test was used as a data collection tool for the research. According to results of the study, it was determined that secondary school students associated the most words with the concept of culture and the fewest words with the concept of respect. In addition, it has been determined that there is a misconception in the cognitive structures of the students regarding the perceptions of justice and equality. The research results has also shown that the students only weakly correlated concepts related to multicultural education.

Keywords: Multicultural education, secondary school students, word association test

1. Introduction

Multicultural education can be defined as interdisciplinary, inter-curricular education that prepares students to live together in a culturally diverse world in order to achieve common goals, to participate in the learning process and to work collaboratively (Sultana, 1994, p.4). This reflects a mindset that prioritizes equality and culture for high academic success (Castagno, 2009, p.48) and tries to provide social justice for students who do not receive adequate service and are deprived of various rights (Gorski, 2009, p.310). Multicultural education especially emphasizes values of cultural diversity, equality, respect and understanding for different cultural structures and educating individuals with this perspective. As Castagno (2009) points out, it is necessary to teach different perspectives, cultures, people and worldviews in school programs. Consequently, various applications related to multicultural education have been made in Turkey and across the world in recent years. The first step towards this was conducted through the regulation of education and training activities for foreigners at the age of compulsory education through the Education and Training Services Circular for Foreigners published by the Republic of Turkey Ministry of National Education Directorate General for Basic Education in 2014 (Ministry of National Education, 2014). In 2016, the Department of Migration and Emergency Education was established by the Directorate General of Lifelong Learning of the Republic of Turkey Ministry of National Education. The Ministry of National Education's 2019-2023 Strategic Plan also aims to develop policies and strategies to expand the participation of foreign students, female students, disabled people, other segments of society that need special care in education (Republic of Turkey Ministry of National Education, 2019). In line with the aforementioned work, it can be argued that solid implementational steps have been taken regarding applications on multicultural education in Turkey.

Education programs carried out in formal academic institutions undoubtedly constitute another important dimension of the initiatives for multicultural education. Besides providing windows into different cultures, reflecting a multicultural understanding of education in

learning environments is extremely important for implementing a culturally-sensitive system. Creating a space that promotes cultural diversity is a key element to this process. Structuring education programs geared towards equality and social justice will help both with meeting the educational needs of different ethnic groups on the basis of equality, ensuring that people of different backgrounds within society live with tolerance, respect, and a sense of unity with each other. Sandwell (2006) highlights that educational programs and courses that adopt the multicultural education approach are important for initiatives aimed at multicultural education.

Social studies curriculum is one of the important areas of study for developing multicultural education. In fact, the aims of the social studies course and the goals of multicultural education directly coincide. Gay (1994) states that multicultural education aims to provide information regarding the history of different ethnic groups and their contributions to social life, and to change false and biased information about social groups. The social studies curriculum also aims to teach students to perceive the similarities and differences, changes and continuity between people, objects, events and phenomena through searching historical evidence related to different periods and places (Republic of Turkey Ministry of National Education, 2018, p.8). It is apparent that these two fields of study share the goal of working towards understanding the lives of and differences between people in history. Gay (1994) also argues that multicultural education develops intercultural communication and interpersonal relations skills of students, enabling them to learn how to interact with and understand people who are ethnically, racially or culturally different. The social studies curriculum also aims to enable students to organize social relations and to utilize basic communication skills when solving the problems they encounter (Republic of Turkey Ministry of National Education, 2018, p.8). In light of these explanations and considering the similarity of the goals of the two fields, it is apparent that the social studies course is an effective course in achieving the goals of multicultural education.

The social studies course overlaps not only with the goals of multicultural education, but also in the mission of teaching students attitudes, beliefs and values. According to Gay (1994), multicultural education promotes fundamental values related to the principles of human dignity, justice, equality, freedom and democracy. Values such as culture, respect, justice, equality and non-biased perspectives are emphasized throughout definitions of multicultural education within the literature. Multicultural education respects cultural differences, defends the principle that every student should have equal opportunity to achieve academic success, aims to provide students with a learning experiences free of racial discrimination or prejudice, and actively advocates for social justice (Castagno, 2009; Gay, 1994; Gorski, 2009; Hossain and Aydın, 2011). Values mentioned in these statements, such as respect for cultural differences, justice, equality and non-biased perspectives, are also values that social studies curriculum aims to impart to students. In relation to this, it is important to investigate how these values are perceived by them. This is because students utilize the knowledge, values and attitudes they have acquired in multicultural education environments as they develop behaviors. Behavior patterns will, in turn, enable the realization of the purpose of multicultural education to respect different cultural structures, to conduct learning process in an equal and fair environment, and to create a cooperative educational experience without prejudice. It is only possible for students to learn these values, which are the basis of multicultural education, and reflect them through their behavior if they perceive these values correctly. In line with this necessity, it was aimed in this study to investigate the cognitive structures of students regarding these concepts in order to examine how the concepts in question, which are taught in social studies courses and also form the basis of multicultural education, are perceived. There are a number of studies in the literature that have set out to investigate the attitudes, awareness, and perception that teachers, academics and university students have towards multicultural education (Akkaya & Demir, 2020; Akman, 2020; Bigatti, Gibau, Boys, Grove, Ashburn-

Nardo, Khaja & Springer, 2012; Capella-Santana, 2003; Colon-Muñiz, Brady & SooHoo, 2010; Günay, Aydın & Damgacı, 2015; İkizoğlu, 2022; Sharma, 2005). However, such studies at the primary and secondary school level (Akınlar, 2018; Arslan, 2017; Aslan & Aybek, 2018; Ateş, 2017) are relatively limited in number. It is also worth mentioning that the studies conducted through word association tests in this age group are limited in number. For example, there are studies in which students' cognitive structures regarding values and concepts included in the curriculum (Balbağ & Kaya, 2019; Bütün Kar, 2021; Çelikkaya & Kürümlüoğlu, 2019) are examined by word association tests. Other studies have examined the cognitive structures of secondary school students regarding democratic values (Dinç, Üztemur, Sezer & Inel, 2018) and the concepts of law and justice (Doğan, 2020). However, there were no studies in the literature geared towards determining the cognitive structures of students regarding concepts related to multicultural education through a word association test. The current study is attempting to fill this gap. It is thought that examining and understanding the cognitive structures of secondary school students regarding concepts related to multicultural education can guide educators and curriculum planners in their work on the subject. The aim of this research is to examine the cognitive structures of secondary school students regarding concepts related to multicultural education through a word association test. For this purpose, the following research question was posed:

"What is the condition of the cognitive structure of secondary school students regarding concepts related to multicultural education?"

2. Method

2.1. Study Design

This study was conducted through the survey design. The survey design is a research method in which it is aimed to describe the subject of the research as it is (Karasar, 2014) through some characteristics of the subject by performing various operations on the data obtained using the appropriate measurement tool (Can, 2017). In this research method, characteristics of the participants such as their opinions, interests, skills, abilities, attitudes, etc. are explored (Büyüköztürk, Çakmak, Akgün, Karadeniz & Demirel, 2009). In this study, the survey design was used to determine the current situation of the cognitive structures of secondary school students regarding concepts related to multicultural education.

2.2. Study Group

The study group of the research consists of 189 eighth-grade students who were studying in secondary schools in the provinces of Erzurum and Bayburt in the spring semester of the 2021-2022 academic year. A total of 97 of the participants were female and 92 of the participants were male. The criterion sampling method, one of the purposeful sampling methods, was used in the selection of the study group. The criterion sampling method can be used if the units examined in the research are people, events, objects, or situations with certain qualifications, and when it is necessary to sample the units that meet the criteria determined for the sample (Büyüköztürk et al., 2009). Eighth grade students were selected for the study since these students took the social studies course in the 5th, 6th, 7th grades and are highly familiar with concepts related to multicultural education.

2.3. Data Collection Tool

The Word Association Test was used as a data collection tool in the research. The Word Association Test explicitly evaluates some types of associations in human memory that are related to various cognitive responses and behaviors (Stacy, Ames & Grenard, 2006, p.85). The researcher prepared a word association test for use in this study. While preparing the data collection tool, the literature was examined to help determine the fundamental concepts related

to multicultural education. These were then presented to three field experts for feedback. Five key concepts were selected for use in the data collection tool in accordance with their input. These key concepts are culture, respect, justice, equality, and prejudice. The word association test was prepared to present each of the concepts on its own page. In order to minimize the chain effect of each response being associated with the next response instead of the key concept (Bahar, Johnstone & Sutcliffe, 1999), each key concept was written at the top of the word association test and in ten rows at the edge of the page, allowing the students to return to the keyword after each word association. An exemplification of the data collection tool is presented in Appendix 1.

2.4. Data Collection Process

At the first stage of the data collection process, a pilot application was carried out with thirty-five eighth-grade students who were not included in the study group of the research. The pilot application was conducted to evaluate the sufficiency of the time given to the students to make word associations for each concept. This is because, in word association test applications, students need to be given an adequate amount of time in order to come up with associations for each concept. It is observed that the amount of time for word associations recommended in the literature varies between 30 seconds and 3 minutes (Aladağ & Yılmaz, 2014; Bahar et al., 1999; Karaman & Karakuş, 2022; Kostova & Radoynovska, 2008). During the pilot application, the time most appropriate for students to make concept associations was determined to be 60 seconds.

The application of the data collection tool was carried out face-to-face by the researcher. First, the participants were given information about the word association test and what was expected of them was explained in detail. Before the actual application, a sample application with a concept not part of the key concepts list was carried out with the students. After the sample application, the actual application was commenced. The students were given 60 seconds for each concept and were asked to write down the words they associated with the concept in rows. At this stage, the students were asked to write the first words that came to their minds about the given concept, in other words, to make free associations. Free association is defined as the association of words that occurs as a result of participants responding to stimulus in the form of words or phrases with the first word or series of words that first come to mind (Stacy et al., 2006, p.76). At the end of each given time period, participants skipped to the next concept with the command given by the researcher. The total time given to students for the word association test was 5 minutes. Word association is carried out by a simple stimulus-response method. The researcher shows or says the stimulus word and the responder says or writes the word that first comes to mind (Sastra & Mardhiah, 2021, p.6). In this study, the answers of the participants were formed in written form.

2.5. Analysis of the Data

In the data analysis, the students' word association tests were firstly numbered between 1 and 189. Then, the words associated with each key concept were calculated and tabulated according to their frequencies. The tables were examined in detail and the frequencies of the answers given in response to each key concept were determined. Concept networks were created according to the frequencies of the answers in order to clearly represent the cognitive structures of the students regarding multicultural education. The breakpoint technique put forward by Bahar et al. (1999) was taken as a reference in the process of creating concept networks. In accordance with this technique, breakpoints were determined as certain frequencies below the most commonly given answers for each key concept. The answers that were given in a frequency above the determined response frequency were included in the first

part of the concept network. Then, the breakpoint was lowered at certain intervals until all the keywords appeared in the concept network. Breakpoints of this research are as follows; 100 and above, 90-100, 60-70, 50-60, 40-50, 30-40, 20-30, 10-20. Words that were answered less than 10 times in the research were not included in the concept network. In order not to cause confusion in the concept networks, each breakpoint was shown with a different color. The colors assigned to breakpoints are as follows: 100 and above: Blue; 90-100: Burgundy; 60-70: Purple; 50-60: Green; 40-50: Orange; 30-40: Brown; 20-30: Pink; 10-20: Turquoise.

2.6. Validity and Reliability

In order to ensure the validity and reliability of the research, the key concepts to be included in the data collection tool were determined based on the literature. In addition, the opinions of three field experts were taken into account when determining these concepts. The experts were consulted once again when the data collection tool was being finalized.

Special attention was paid to select participants that fit the sampling criteria (receiving education at the 8th grade level and taking social studies courses) and who volunteered to participate. Students were given enough time to complete the word association test. In addition, the researcher provided detailed information regarding the purpose and application method of the test, and a sample application was carried out. The data collection process carried out throughout the research was described in detail.

The data was analyzed by a field specialist working independently from the researcher. A reliability evaluation was then conducted by comparing the different analyses. The reliability formula developed by Miles and Huberman (1994) [Reliability=Agreements/(Agreements+ Disagreements)] was used to calculate the reliability of the study. As a result of these calculations, the reliability of this research was determined to be 87%. According to Yıldırım and Şimşek (2013), a compliance percentage, which is used in determining reliability, of 70% and above indicates that the research is reliable, and this study clearly exceeds that threshold. In addition, research findings were supported by visual elements.

Yıldırım and Şimşek (2013) also explained that performing expert evaluations is one of the strategies that can be used to ensure the validity and reliability of research. In this study, an expert evaluation was included for such a purpose. Essentially, the entire research process was presented to a field expert, who confirmed that the research model, the data collection and the analyses were appropriately performed.

3. Findings

As part of the research, concept networks were created in line with the data obtained from the word association test in order to examine the cognitive structures of secondary school students regarding concepts related to multicultural education.

The number of words associated with key concepts related to multicultural education by secondary school eighth grade students is presented in Table 1.

Table 1. *The number of words associated with concepts related to multicultural education*

Key Concept	Number of Words Associated
Culture	233
Prejudice	208
Equality	172
Justice	169
Respect	168
Total	950

When Table 1 is examined, it is seen that the key concept with which the most words are associated is Culture. The concept that is associated with the fewest words is the concept of Respect. A total of 950 words were associated within the five key concepts.

The concept networks related to the key concepts created according to the breakpoints are presented below.
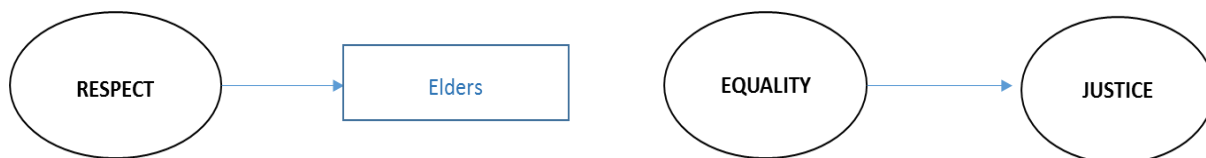

Figure 1. Concept network created according to the breakpoint of 100 and above

It is seen that at the breakpoint of 100 and above, only the concepts of respect, equality and justice from among the five key concepts were associated with other words. The concept of respect was associated with elders (f:101) and the concept of equality was associated with the word justice, which is one of the key concepts (f: 109). The first association between key concepts occurred at this breakpoint. No words were commonly associated with more than one key concept. It is observed that there were no words associated with the concepts of Culture and Prejudice at this breakpoint.

Figure 2. Concept network created according to the breakpoint of 90-100

At the breakpoint of 90-100, associations were only made with the key concept of Respect. The word associated with this concept was love. It is observed that the concept of Respect, which was associated with the word "elders" at the previous breakpoint, was associated with "love" (f:94) at this breakpoint. While an association with the concept of Equality was made at the previous breakpoint, no association with the concept was made at this breakpoint. No words were commonly associated with more than one key concept. It is observed that no new association between key concepts was made at this breakpoint. It is also seen that there were still no words associated with the concepts of Culture and Prejudice at this breakpoint.
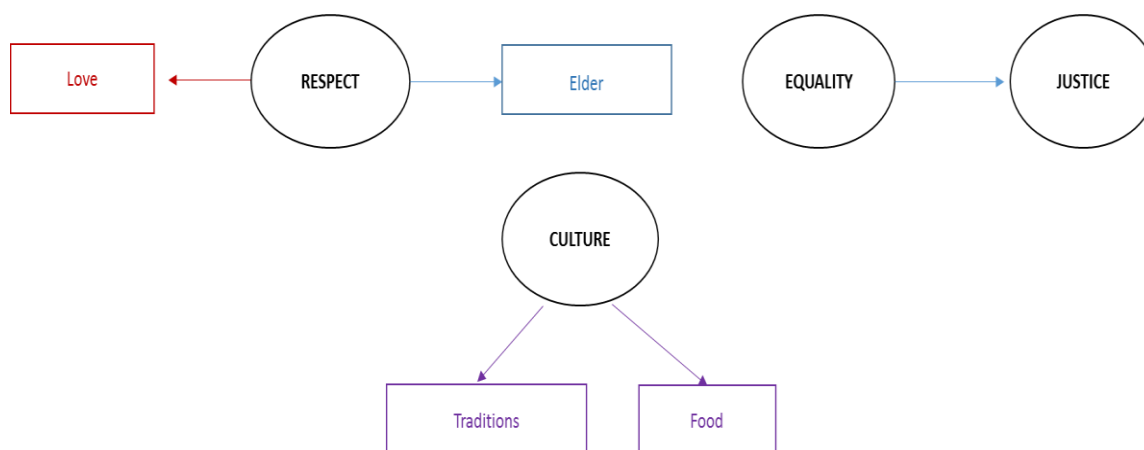

Figure 3. Concept network created according to the breakpoint of 60-70

At the breakpoint of 60-70, associations were only made with the key concept of Culture. "Traditions" (f:69) and "food" (f:68) were the words that were associated with this key concept.

1892

No words were commonly associated with more than one key concept. No associations were made between key concepts. It is seen that there were no new words associated with the concepts of Respect and Equality at this breakpoint, and there were still no words associated with the concept of Prejudice.
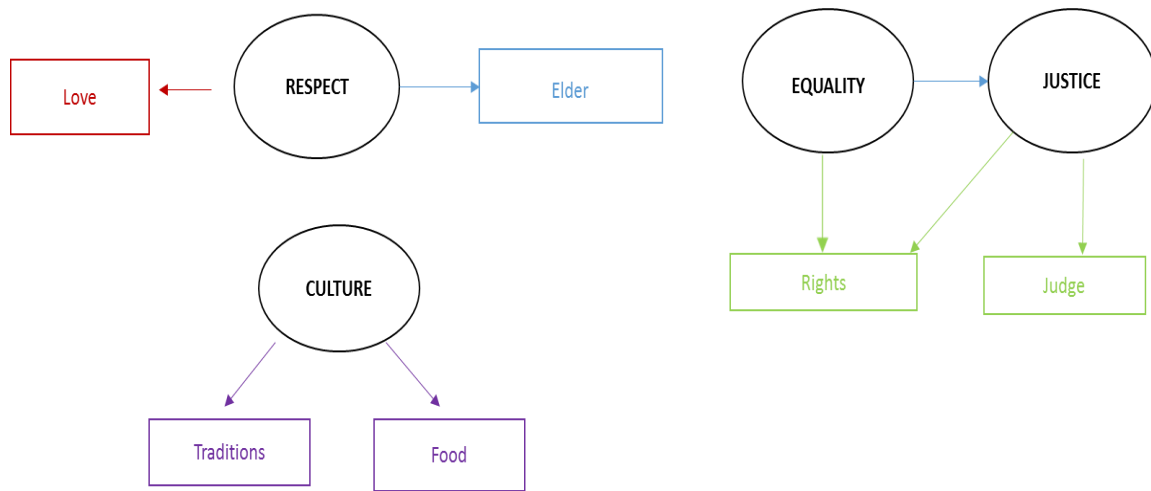

Figure 4. Concept network created according to the breakpoint of 50-60

At this breakpoint, new words were associated with the concept of Justice: "rights" (*f*:52) and "judge" (*f*:55). In addition, the word "rights" (*f*:52) was associated with the key concept of Equality, which was associated with Justice at the breakpoint of 100 and above. Thus, the word "right" was found to be the common word with which the concepts of Equality and Justice were associated. Thus, the first word commonly associated with more than one key concept was "rights". At this breakpoint, no associations were made between key concepts. In addition, no words were associated with the concept of Prejudice.
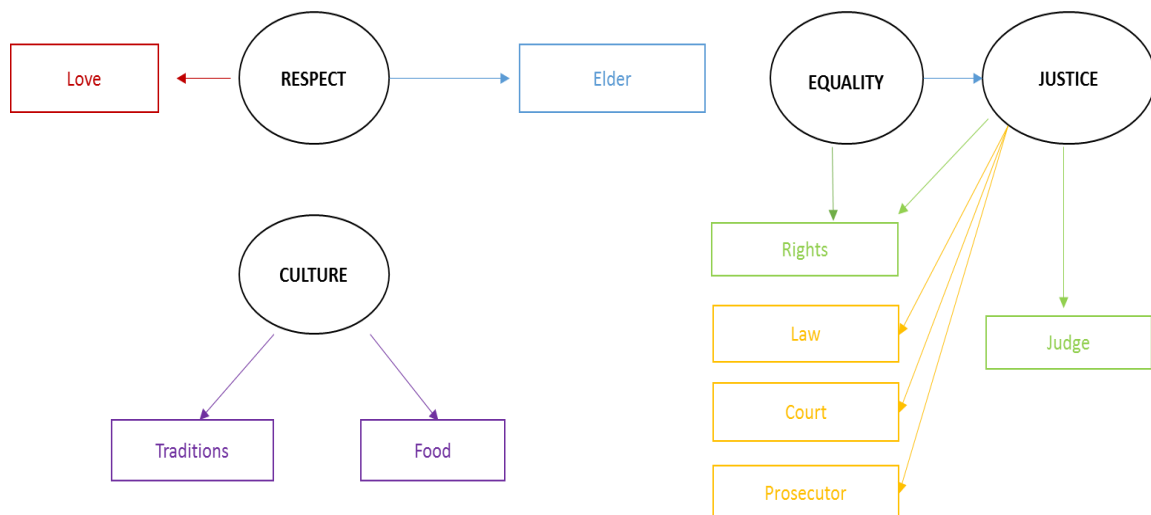

Figure 5. Concept network created according to the breakpoint of 40-50

At the breakpoint of 40-50, associations were only made with the key concept of Justice. The words associated with the key concept of Justice at this breakpoint were "law" (*f*:45), "court" (*f*:44), and "prosecutor" (*f*:44). No words were commonly associated with more than one key concept. In addition, it was observed that there were no associations between key concepts. And no words were associated with the concept of Prejudice at this breakpoint.
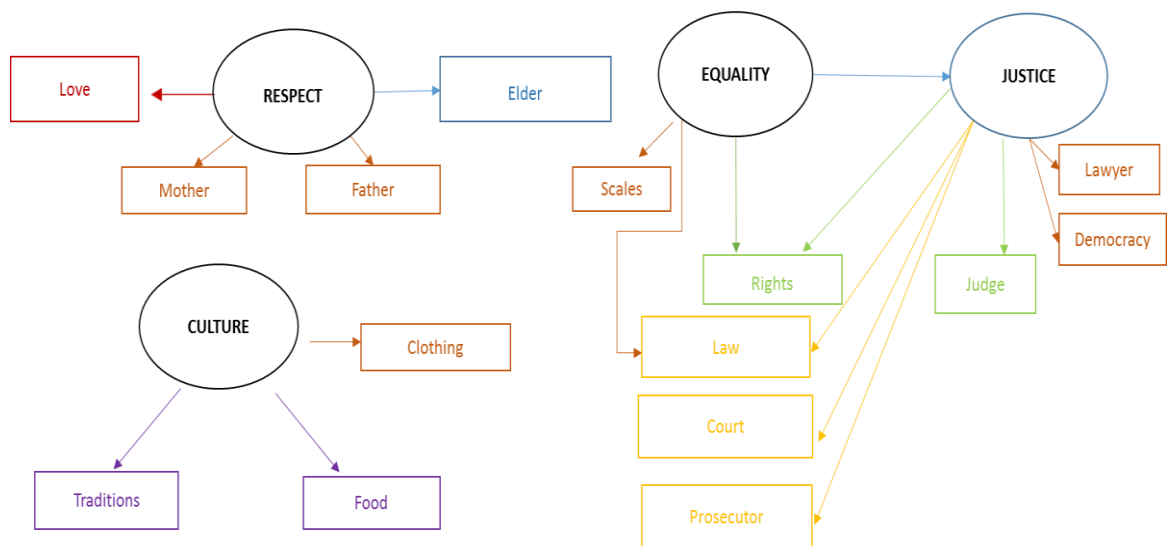
Figure 6. Concept network created according to the breakpoint of 30-40

At the breakpoint of 30-40, associations were made with the key concepts of Respect, Culture, Equality and Justice. The words "mother" (*f:*31) and "father" (*f:*32) were associated with the key concept of Respect. The word "clothing" (*f:*34) was associated with the key concept of Culture. The words "scales" (*f:*37) and "law" (*f:*36) were associated with the key concept of Equality. Lastly, the words "lawyer" (*f:*35) and "democracy" (*f:*31) were associated with the key concept of Justice. The key concepts of Equality and Justice were commonly associated with the word "law". The key concepts were not directly associated with each other at this breakpoint. No words were associated with the concept of Prejudice. It is seen that all of the key concepts related to multicultural education did not appear at this breakpoint either.
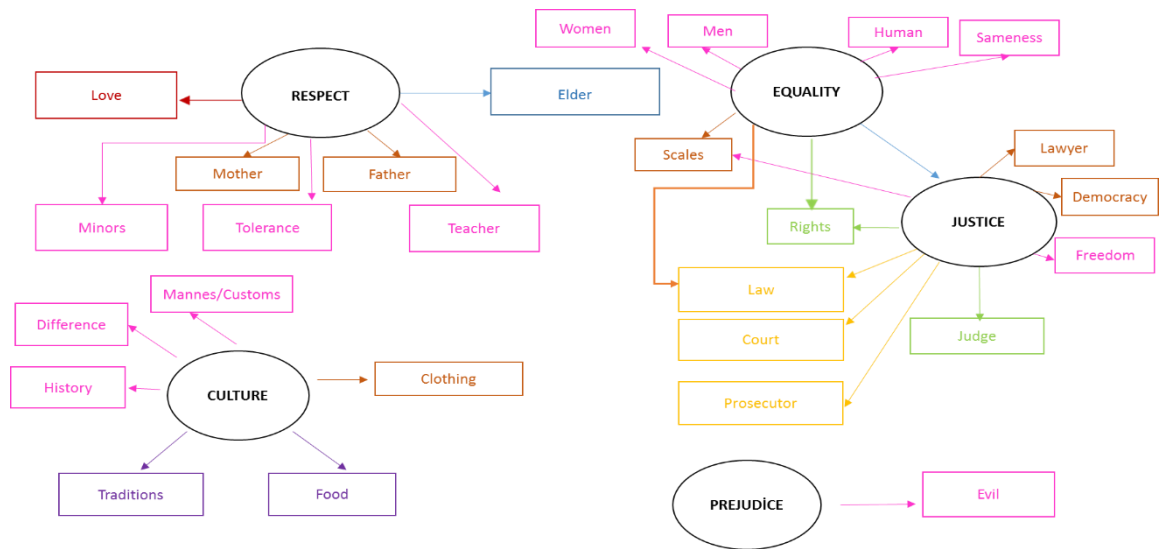

Figure 7. Concept network created according to the breakpoint of 20-30

At the breakpoint of 20-30, associations were made with all key concepts. The words "minors" (*f:*29), "tolerance" (*f:*26) and "teacher" (*f:*21) were associated with the key concept of Respect, the word "evil" (*f:* 23) was associated with the key concept of Prejudice, and the words "manners/customs" (*f:*27), "difference" (*f:*23) and "history" (*f:*22) were associated with the key concept of Culture. The words "women" (*f:*29), "men" (*f:*27), "human", (*f:*22) and "sameness" (*f:*24) were associated with the key concept of Equality, and the words "freedom" (*f:*29) and "scales" (*f:*27) were associated with the key concept of Justice. It is observed that

the concept of Prejudice has appeared at this breakpoint. Thus, all key concepts were accounted for. The common word that the concepts of justice and equality are associated with is the word scales. The key concepts were not associated with each other at this breakpoint.
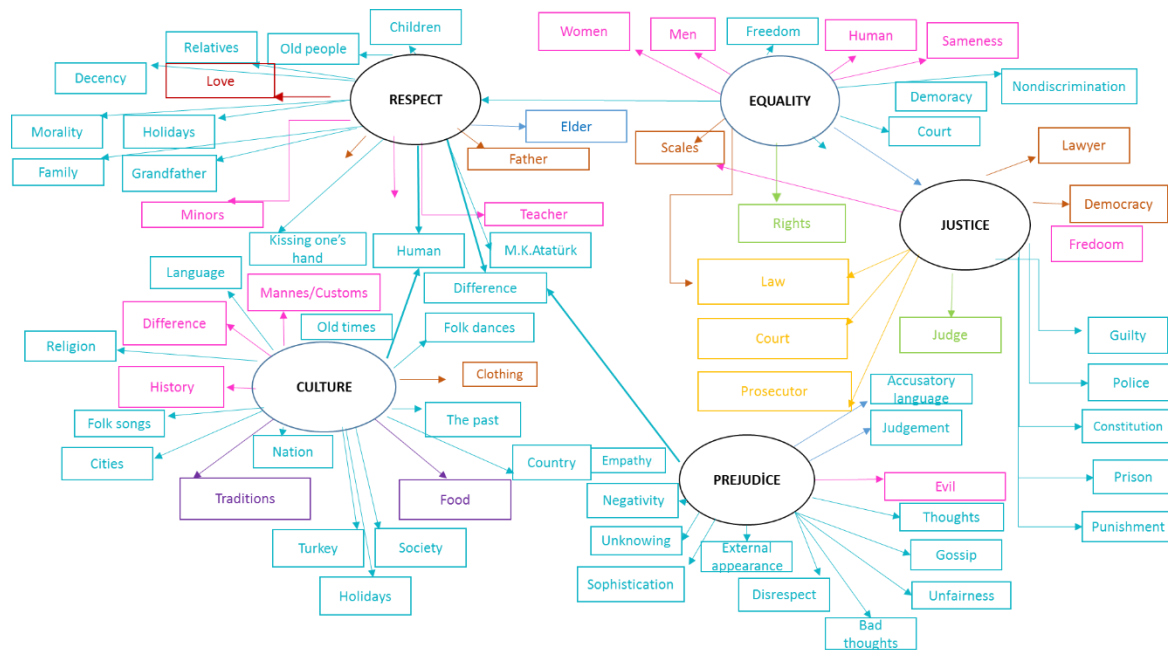

Figure 8. Concept network created according to the breakpoint of 10-20

At the breakpoint of 10-20, associations were made with all key concepts. The words "old people" (*f*:17), "human" (*f*:17), "morality" (*f*:16), "grandfather" (*f*:14), "family" (*f*:14), "kissing one's hand" (*f*:13), "decency" (*f*:12), "relatives" (*f*:11), "difference" (*f*:11), "holidays" (*f*:10), "Mustafa Kemal Atatürk" (*f*:10) and "children" (*f*:10) were associated with the key concept of Respect. The words "judgement" (*f*:17), "thoughts" (*f*:16), "gossip" (*f*:15), "negativity" (*f*:14), "disrespect" (*f*:13), "bad thoughts" (f:12), "sophistication" (*f*:12), "differences" (*f*:11), "unfairness" (*f*:11), "external appearance" (f:11), "accusatory language" (*f*:10), "unknowing" (*f*:10) and "empathy" (*f*:10) were associated with the key concept of Prejudice. The words "folk dances" (*f*:20), "country" (*f*:18), "Turkey" (*f*:17), "society" (*f*:16), "holidays" (*f*:15), "old times" (*f*:14), "human" (f:14), "folk songs" (*f*:13), "language" (*f*:13), "religion" (*f*:13), "the past" (*f*:11), "nation" (*f*:11) and "cities" (*f*:10) were associated with the key concept of Culture. The words "democracy" (*f*:19), "freedom" (*f*:19), "respect" (*f*:15), "nondiscrimination" (*f*:15), "court" (*f*:14) and "love" (*f*:11) were associated with the key concept of Equality. The words "constitution" (*f*:14), "police" (*f*:12), "prison" (*f*:11), "guilty" (*f*:11), "Mustafa Kemal Atatürk" (*f*:11) and "punishment" (*f*:10) were associated with the key concept of Justice. At this breakpoint, the word "human" was commonly associated with the key concepts of Respect and Culture. The word "difference" was commonly associated with the key concepts of Respect and Prejudice. The word "Mustafa Kemal Atatürk" was commonly associated with the key concepts of Respect and Justice. At this breakpoint, the concept of Respect, which is one of the key concepts, is associated with the other key concept, the concept of Equality.

4. Discussion and Conclusion

The goal of this research was to determine the cognitive structures of secondary school students regarding concepts related to multicultural education. Previous studies have shown that word association tests are an effective method to determine the associations that individuals establish between concepts, as well as misconceptions related to these associations

(Bahar et al., 1999; Bahar & Özatlı, 2003; Çetinkaya, Sönmez & Topçam, 2020). In this study, a word association test was used to determine the cognitive structures of eighth-grade students regarding concepts related to multicultural education. The results of the research were examined sequentially according to the words associated which each concept, the words commonly associated with multiple concepts, and associations between concepts. The results are discussed below.

Upon reviewing the words related to the key concept of Respect, it was seen that the most commonly associated words were "elders" and "love". Following these, the most frequent associations were made with the words "mother" and "father". The fact that students have most frequently associated the concept of respect with the word "elders" can be interpreted as a connection in their cognitive structures towards older people. The answer "love" was given with a high frequency as well. Respect is defined as a feeling of love that leads individuals to care for, show attention to, or act temperately towards someone or something because of their value, superiority, old age, usefulness or sanctity (Turkish Dictionary, p.2047). Bakırcıoğlu (2016) also characterizes respect as a sense of loyalty that is a mixture of both love and restraint. Associations with individuals who are attached to feelings of love, such as mothers and fathers, made at the lower breakpoints also show that students made the right connections. However, it is of interest that there were no associations with living or inanimate beings other than humans, such as nature and animals, at upper breakpoints. Similar to this research finding, in a study where the cognitive structures of primary school students regarding the values taught in social studies course were examined, it was observed that students associated the values of love, respect and tolerance with each other (Balbağ & Kaya, 2019). Although the concept of respect is the one associated with the fewest words, it was also one of the two concepts that were associated with words at the highest frequency.

The concept of Equality was most frequently associated with the words "justice" and "rights". The dictionary explains equality as people being similar or the same in terms of political and social rights and treatment regardless of their physical or mental differences (Cevizci, 2017, p.164; Turkish Dictionary, p.825). Justice is defined as compliance with the law and rights, and protection of rights (Turkish Dictionary, p.24). It is apparent that equality is the equal treatment of people in terms of various rights, and justice is the protection of said rights. As can be understood from these explanations, the concepts of equality, justice and rights are closely related. It is observed that students associated the concept of equality with concepts that are closely related to this concept.

The concept of Culture was most associated with the words "traditions" and "food". At lower breakpoints, the words that the concept was associated with are "clothing" (30-40 breakpoint) and "manners/customs", "difference" and "history" (20-30 breakpoint). Culture is the whole of societies' thought and way of living (Timuroğlu, 2007, p.274). All the values of a society, such as the language, beliefs, artistic products, life view, history (Bakırcıoğlu, 2016, p.996), traditions, and thoughts of a society (Hançerlioğlu, 2016, p.231) constitute the culture of that society. The fact that the students associated the words "traditions", "food", "clothing", "manners/customs", "difference", and "history" shows that they have formed correct cognitive patterns regarding the concept. However, it can be argued that these structures lack depth. This is because of the fact that the values that constitute the culture of a social structure, such as language, religion, artistic products and way of life, were not included in the cognitive structures of students, nor were located at lower breakpoints. Because Culture was associated with the word "difference", it seems students recognize that cultural structures are unique. Similar to our research result, Erişti and Belet (2010) reported that primary school students

perceive culture especially through the lens of celebrations, marriage ceremonies, food, games, clothing, ancient sports, traditions/customs and holidays.

The words with which the concept of Justice is most associated were "rights" and "judge". Following these were the words "law", "court", "prosecutor" (40-50 breakpoint), "lawyer", "democracy" (30-40 breakpoint). Justice is the conformity between one's rights and the rights of the society, the people, the government or other individuals, the compliance with rights and the law, giving due rights to the rightful individuals, and individuals being able to have what they deserve (Bakırcıoğlu, 2016, p.5, Cevizci, 2010, p.13-14). Therefore, considering the association of the concept with the word "right" at a high frequency, it can be said that students have a strong cognitive structure regarding the concept of Justice. Considering that Justice is also defined as protecting rights and state organizations that perform this duty (Turkish Dictionary, p.24), students associating the concept with institutions and officials working for justice in the judicial system such as judges, law, court, prosecutors and lawyers suggests that they formed a correct cognitive structure about justice. It is also apparent that justice is a fundamental value that affects all areas of social relations and plays a pivotal role in the establishment and maintenance of relations between equals (Elbay, 2020). From this perspective, students associating the concept of Justice with authorities of the state or systems that provide justice with state control suggests a correct cognitive structure. However, the relations or values in the social structure not being associated with the concept of Justice at upper breakpoints can be evaluated as a deficiency.

The concept of Prejudice was most associated with the word "evil". Prejudice can be defined as a baseless belief or thought about people, situations or events (Quillian, 2006, p.299) adopted without in-depth research or rational evaluation (Cevizci, 2017, p.337), without having enough information (Bowers, 2005, p.567). These thoughts or opinions can be positive or negative (Bakırcıoğlu, 2016; Cevizci, 2005; Sağıroğlu, 2014). The word prejudice refers to ideas or judgments formed without appropriate awareness of significations about a thing or phenomenon. Therefore, it denotes a negativity. In fact, the thing or phenomenon subject to prejudice is related to a thought that has been evaluated in a different context. Prejudice against a person, if not personal, may be related to their ethnic, religious, sectarian, gender, etc. identity. However, it would not be correct to say that prejudice is always negative. Prejudices can also be positive (Sağıroğlu, 2014, p.76). Prejudices, whether they contain positive or negative opinions about an individual or a group, can cause harm to the social structure especially because they are subjective and not based on research and accurate information. Bakırcıoğlu (2016) suggests that prejudices lead to stereotyping against individuals, objects or groups, and to the increase of social distance, hostile feelings, and social discrimination against that individual or group. In fact, the mental manifestation of prejudice is stereotypes, and the behavioral manifestation of prejudice is discrimination (Jones, 2002, p.4). Therefore, it is apparent that prejudices cause negative consequences in the social structure. Students associating the concept with the word "evil" shows that they have a correct cognitive structure related to the concept.

When the research results were evaluated in terms of common words with which key concepts were associated, it was seen that the common words with which the concepts of equality and justice were associated are the words "rights" (50-60 breakpoint) and "law" (30-40 breakpoint). Justice is defined as the conformity between one's rights and the rights of the society, the people, the government or individuals and the compliance with rights and the law (Cevizci, 2005, p.13). Equality is the nondiscrimination between people in terms of political and social rights regardless of their physical or mental differences (Bakırcıoğlu, 2016, p.996). It is seen that rights and legal compliance are particularly involved in the definition of both concepts. Cevizci (2017) states that the term justice elicits the impartial and consistent

application of the principles, rules and laws in force, and legal systems are also perceived as distributors and implementors of justice. Therefore, it can be said that there is a direct relationship between justice and law. The students have made correct associations regarding these concepts. Similar to this research result, previous studies show that students associate the concepts of justice, equality, rights and law with each other. In a study by Elbay (2020), secondary school students explained the common characteristic of the concepts of law and justice as treating people fairly. In another study by Doğan (2020), students perceived equality as the common feature of the concepts of law and justice. Additionally, studies in the literature show that secondary school students correlated justice with the concept of rights (Elbay, 2020; İnel, Urhan & Ünal, 2018) and that primary school students correlated justice with the concept of equal treatment (Arslan & Elma, 2022). In a study that examined the concept of justice in the context of social justice, it was found that students perceived social justice as providing justice, rights and freedoms to people equally, and as ensuring equality of opportunity in all areas (Tarhan, 2022).

The common word with which the concepts of prejudice and respect were associated is the word "difference" (10-20 breakpoint). Kıral (2018) points out that the values that people respect may differ according to the culture of the society they live in, and argues that the concept of respect should be discussed when considering cultural differences. Prejudice usually manifests as uninformed attitudes towards thoughts, structures or individuals that differ from one's own ideas. Thus, students associating the concepts of respect and prejudice with the word "difference" indicates the respect felt for differences in students' cognitive structures. At the same time, they seem aware of how prejudices are formed against people embodying social differences.

The concepts of justice and respect were associated with the word Mustafa Kemal Atatürk (10-20 breakpoint). The words commonly associated with concepts of culture and respect is the word "human" (10-20 breakpoint). Culture is what people do and create (Arslanoğlu, 2000). It is a concept that has a direct connection with people. In addition, studies in the literature suggest that students consider respect important since it is a value that defines humanity (Yılmaz, Göçen & Yılmaz, 2013) and enables healthy communication between people (Çelikkaya & Kürümlüoğlu, 2017). Students associating the concepts of culture and respect with humanity in our study indicates a correct cognitive structure.

When the research results were evaluated in terms of the association of the key concepts with each other, it was seen that only the concepts of equality and justice were associated with each other (100 and above breakpoint). Justice is impartiality in the distribution of resources or welfare, or equal treatment of all individuals (Cevizci, 2010, p.13). Equality is the principle of people being in equal positions and valued equally for they are of the same human nature. This principle therefore entails that there should be no discrimination between people. (Cevizci, 2005, p.643). But equal or impartial treatment in many areas of life is not enough to ensure justice. Therefore, the justice related to equal treatment should be made complete with justice related to merit, or in other words, giving everyone what they deserve (Cevizci, 2010, p.13-14). In relation to this, it should be stated that equality is a requirement of justice (Erdoğan, 2008). As can be understood from the definitions of these concepts, equality and justice are concepts that are closely related with and complement each other. But it is also apparent that not every situation that ensures equality will be fair, and equality alone will not be enough to ensure justice. The same applies to education. Accordingly, justice in education manifests in the form of providing everyone or all classes in society equal rights to benefit from educational services. However, in regions that are far behind in gender equality, gender-equal treatment in regard to benefiting from educational services may itself be unfair. Therefore, it may be useful

to apply positive discrimination according to circumstances in order to ensure justice (Cevizci, 2010, p.13-14). Elbay (2020) argues that equality and justice may not always coincide. Thus acting in accordance with the special needs of individuals, that is, positive discrimination, can be seen as a fair practice, even if it is considered contrary to equality. In fact, secondary and high school students also express the opinion that positive discrimination should be applied prominently in order to ensure social justice in schools (Akkuş, 2019; Dinç & Üztemur, 2016). From this point of view, there is a misconception in the cognitive structures of students regarding the concepts of justice and equality. Similar to this result, other studies in the literature suggested that primary and secondary school students also associate the concept of justice with the concept of equality (Yaşaroğlu & Biçer, 2020) or try to explain the concept through equality (İnel et al., 2018). Dinç and Üztemur (2016) also reported that secondary school students cannot fully distinguish the concepts of justice and equality from each other.

Key concepts other than equality and justice have not been associated with each other at any breakpoint. This shows that the relation established between the key concepts is weak. This finding indicates that the characteristics of fundamental concepts related to multicultural education that are supportive of each other are not fully understood by the students.

5. Recommendations

The findings of the research show that the students struggled to establish connections between multicultural education and related concepts. This indicates that they do not fully comprehend the fundamental concepts related to multicultural education, which, if unaddressed, will negatively affect their behavioral patterns. Thus, it is recommended to include more content in the curriculum that values and emphasizes multiculturalism. In fact, academic institutions can also increase the number of applications and activities that promote multicultural education, such as symposiums, panels, social activities. Since this research was carried out through a survey design, an existing condition was tried to be determined. It is recommended to conduct experimental studies aimed at detecting the change in students' cognitive structures regarding these concepts.

References

Akkaya, N., & Demir, T. (2020). Türkçe öğretmenlerinin gözünden Türkiye'de çokkültürlü eğitimin boyutları. *Turkish Studies-Social*, *15*(3), 861-885.

Akkuş, Ş. (2019). *Okullarda sosyal adaletin geliştirilmesine ilişkin yönetici, öğretmen ve öğrenci görüşleri*. [Yüksek Lisans Tezi, Gaziantep Üniversitesi-Gaziantep]. Yükseköğretim Kurulu Başkanlığı Tez Merkezi.

Akınlar, A. (2018). *Türkiye'de azınlık ve devlet liselerinde çokkültürlü eğitim anlayışının araştırılması: çoklu durum çalışması*. [Doktora Tezi, Yıldız Teknik Üniversitesi-İstanbul]. Yükseköğretim Kurulu Başkanlığı Tez Merkezi.

Akman, Y. (2020). Öğretmenlerin mülteci öğrencilere yönelik tutumları ile çokkültürlü eğitim algıları arasındaki ilişkinin incelenmesi. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 49, 247-262.

Aladağ, S., & Yılmaz, E. (2014). Kavramsal değişim metinlerinin öğrencilerin sosyal bilgiler dersindeki kavram yanılgılarını gidermeye etkisi. *Trakya Üniversitesi Sosyal Bilimler Dergisi*, *16*(2), 163-176.

Arslan, S. (2017). Farklı kültürel değerlere sahip öğrencilerin çokkültürlü vatandaşlık algı ve farkındalıkları. *Sosyal Araştırmalar ve Davranış Bilimleri*, 3(Special), 1-29.

Arslan, A., & Elma, M. (2022). İlkokul öğrencilerinin değerlere bakış açılarının kök değerler açısından incelenmesi. *Değerler Eğitimi Dergisi*, *20*(44), 385-416.

Arslanoğlu, İ. (2000). Kültür ve medeniyet kavramları. *Türk Kültürü ve Hacı Bektaş Velî Araştırma Dergisi*, (15), 243-255.

Aslan, S. & Aybek, B. (2018). İlkokul 4. sınıf öğrencilerinin çokkültürlü eğitime dayalı olarak uygulanan etkinlikler ile ilgili görüşlerinin incelenmesi. *Kuramsal Eğitimbilim Dergisi*, 11(1), 58-82.

Ateş, S. (2017). *Sosyal bilgiler öğretmenleri ve ortaokul öğrencilerinin çokkültürlülük ve çokkültürlü eğitime yönelik algı ve farkındalıkları (Kocaeli örneği)*. [Yüksek Lisans Tezi, Abant İzzet Baysal Üniversitesi-Bolu]. Yükseköğretim Kurulu Başkanlığı Tez Merkezi.

Bahar, M., Johnstone A. H. & Sutcliffe, R. G. (1999). Investigation of students' cognitive structure in elementary genetics through word association tests. *Journal of Biological Education*, *33*(3), 134-141. DOI: 10.1080/00219266.1999.9655653

Bahar, M. & Özatlı, N. S. (2003). Kelime iletişim test yöntemi ile lise 1. sınıf öğrencilerinin canlıların temel bileşenleri konusundaki bilişsel yapılarının araştırılması. *Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi*, 5(2), 75-85.

Bakırcıoğlu, R. (2016). *Ansiklopedik eğitim ve psikoloji sözlüğü* (2. baskı). Anı yayıncılık

Balbağ, N. L., & Kaya, M. F. (2019). Fourth grade students' cognitive structures regarding "Values": application of the word association test. *Review of International Geographical Education Online*, *9*(1), 193-208.

Bigatti, S. M., Gibau, G. S., Boys, S., Grove, K., Ashburn-Nardo, L., Khaja, K., & Springer, J. T. (2012). Faculty perceptions of multicultural teaching in a large urban university. *Journal of the Scholarship of Teaching and Learning*, *12*(2), 78-93.

Budak, S. (2005). *Psikoloji sözlüğü* (3.baskı). Bilim ve Sanat Yayınları.

Bütün Kar, E. (2021). Kelime ilişkilendirme testi ile icatlar konusuna ilişkin öğrencilerin bilişsel yapılarının ve kavramsal değişimlerinin incelenmesi. *European Journal of Education Studies*, *8*(1), 360-372.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., Demirel, F. (2009). *Bilimsel araştırma yöntemleri*. (4.baskı). Pegem Akademi.

Can, A. (2017). *Spss ile bilimsel araştırma sürecinde nicel veri analizi*. Pegem Akademi.

Castagno, A. E. (2009). Making sense of multicultural education: a synthesis of the various typologies found in the literature. *Multicultural Perspectives*, *11*(1), 43-48.

Capella-Santana, N. (2003). Voices of teacher candidates: Positive changes in multicultural attitudes and knowledge. *The Journal of Educational Research*, 96(3), 182-190.

Cevizci, A. (2005). *Paradigma felsefe sözlüğü*. (6. baskı). Paradigma yayıncılık.

Cevizci, A. (2010). *Eğitim sözlüğü*. (1. baskı). Say yayınları.

Cevizci, A. (2017). *Felsefe sözlüğü*. (6. baskı). Say yayınları.

Colon-Muñiz, A., Brady, J., & SooHoo, S. (2010). What do graduates say about multicultural teacher education?. *Issues in Teacher Education*, *19*(1), 85-108.

Çelikkaya, T., & Kürümlüoğlu, M. (2017). Veliler, öğrenciler ve sosyal bilgiler öğretmenlerinin 2005 programdaki değerlere ilişkin değer hiyerarşileri, gerekçeleri ve önerileri. *Uluslararası Sosyal ve Eğitim Bilimleri Dergisi*, *4*(8), 243-264.

Çelikkaya, T., & Kürümlüoğlu, M. (2019). Sosyal bilgiler dersi "demokrasinin serüveni" ünitesi ile öğrencilerin bilişsel yapılarının ve kavramsal gelişim süreçlerinin incelenmesi. *Anadolu Journal of Educational Sciences International*, *9*(1), 56-86.

Çetinkaya, F. Ç., Sönmez, M., & Topçam, A. B. (2020). A formative assessment example: word association test. *International Education Studies*, *13*(8), 103-117.

Dinç, E. & Üztemur, S. S. (2016). Ortaokul 8. sınıf öğrencilerinin demokratik değer algılarının karikatürler aracılığıyla incelenmesi. *Elementary Education Online*, *15*(3), 974-988.

Dinç, E., Üztemur, S., Sezer, A., & İnel, Ö. Ü. Y. (2018). Ortaokul öğrencilerinin demokratik değerlere ilişkin bilişsel yapılarının kelime ilişkilendirme testi aracılığıyla incelenmesi. *2. Uluslararası Sosyal Bilimler Eğitimi Sempozyumu (30 Ekim-01 Kasım)*, Çanakkale, Türkiye.

Doğan, O. (2020). *Ortaokul 6. sınıf öğrencilerinin hukuk ve adalet kavramlarına ilişkin algılarının incelenmesi*. [Yüksek lisans tezi, Afyon Kocatepe Üniversitesi-Afyonkarahisar]. Yükseköğretim Kurulu Başkanlığı Tez Merkezi.

Elbay, S. (2020). Sekizinci sınıf öğrencilerinin hukuk ve adalet kavramlarına yükledikleri anlamların incelenmesi. *JRES*, *7*(2), 585-608.

Erdoğan, M. (2008). Adalet ve eşitlik. *Muhafazakâr Düşünce Dergisi*, *4*(15), 9-22.

Erişti, S. D., & Belet, Ş. D. (2010). İlköğretim öğrencilerinin yazılı anlatım ve resimlerinde kültür algıları. *Elektronik Sosyal Bilimler Dergisi*, *9*(33), 245-264.

Gay, G. (1994) A Synthesis of scholarship in multicultural education. *North Central Regional Educational Laboratory*. https://eric.ed.gov/?id=ED378287 adresinden 02.08.2022 tarihinde alınmıştır

Gorski, P. C. (2008). What we're teaching teachers: An analysis of multicultural teacher education coursework syllabi. *Teaching and Teacher Education,* 25, 309-318.

Günay, R., Aydın, H., & Damgacı, F. K. (2015). Eğitim fakültelerinde görev yapan akademisyenlerin çokkültürlü eğitim kavramına ilişkin metaforik algıları. *Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *6*(1), 291-312.

Hançerlioğlu, O. (2016). *Felsefe sözlüğü*. (23. Basım). Remzi Kitabevi.

Hossain, M. & Aydin, H. (2011). A web 2.0-based collaborative model for multicultural education. *Multicultural Education & Technology Journal, 5*(2), 116-128.

İkizoğlu, S. (2022). *Öğretmenlerin çokkültürlülüğe ilişkin tutumları*. [Yüksek lisans tezi, Pamukkale Üniversitesi-Denizli]. Yükseköğretim Kurulu Başkanlığı Tez Merkezi.

İnel, Y., Urhan, E., & Ünal, A. İ. (2018). Ortaokul öğrencilerinin adalet kavramına ilişkin metaforik algıları. *Anadolu Journal of Educational Sciences International*, *8*(2), 379-402.

Jones, M. (2002). *Social psychology of prejudice*. New Jersey: Prentice Hall.

Karaman, B., & Karakuş, U. (2022). Investigation of secondary school students' perceptions on the concept of health through the word association test. *Participatory Educational Research*, *9*(4), 231-249.

Karasar, N. (2014). *Bilimsel araştırma yöntemi, kavramlar-ilkeler-teknikler*. Nobel Yayıncılık.

Kıral, E. (2018). Kayıp giden bir değer: saygı. *Çağdaş Yönetim Bilimleri Dergisi*, *5*(1), 4-10.

Kostova, Z., & Radoynovska, B. (2008). Word association test for studying conceptual structures of teachers and students. *Bulgarian Journal of Science and Education Policy (BJSEP)*, *2*(2), 209-231.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: an expveed sourcebook.* (2nd ed.). California: SAGE Publications.

Milli Eğitim Bakanlığı. (2018). *Sosyal bilgiler dersi öğretim programı (ilkokul ve ortaokul 4, 5, 6 ve 7. sınıflar),* Milli Eğitim Bakanlığı.

Milli Eğitim Bakanlığı. (2014). *Yabancılara yönelik eğitim öğretim hizmetleri genelgesi*. http://mevzuat.meb.gov.tr/dosyalar/1715.pdf adresinden 02.09.2022 tarihinde erişilmiştir.

Milli Eğitim Bakanlığı. (2019). *Millî eğitim bakanlığı 2019-2023 stratejik planı*. http://sgb.meb.gov.tr/meb_iys_dosyalar/2019_11/22154626_Milli_EYitim_BakanlYYY_2019-2023_Stratejik_PlanY.pdf adresinden 02.03.2022 tarihinde erişilmiştir.

Quillian, L. (2006). New approaches to understanding racial prejudice and discrimination, *Annual Review of Sociology*, 32, 299-328.

Sandwell, R. W. (2006). *To the past: history education, public memory and citizenship in Canada*. Toronto: University of Toronto Press.

Sağıroğlu, A. Z. (2014). *Türkiye'de etnisite, din ve önyargı: üniversite öğrencileri örneği*. [Doktora tezi, Selçuk Üniversitesi-Konya]. Yükseköğretim Kurulu Başkanlığı Tez Merkezi.

Sharma, S. (2005). Multicultural education: teachers perceptions and preparation. *Journal of College Teaching & Learning (TLC)*, *2*(5), 53-64.

Sastra, G. & Mardhiah, A. (2021).Word association as a tool to understand social order perception on individual level. *Quest Journals Journal of Research in Humanities and Social Science*, *9*(8), 05-11.

Stacy, A.W., Ames, S.L., & Grenard, J.L. (2006). Word association tests of associative memory and ımplicit processes: theoretical and assessment ıssues. In R.W. Wiers & A.W. Stacy, (Eds). *Handbook of implicit cognition and addiction*. Thousand Oaks, CA: SAGE.

Sultana, Q. (1994). Evaluation of multicultural education's understanding and knowledge in freshman level preservice. *Annual Meeting of The Mid-South Educational Research Association.* ERIC Digest ED 1174138131262. (https://files.eric.ed.gov/fulltext/ED389672.pdf adresinden 02.09.2022 tarihinde erişilmiştir)

Tarhan, Ö. (2022). Ortaokul öğrencilerinin sosyal adalet bilinci. *Cumhuriyet International Journal of Education*, *11*(2), 374-391.

Timuroğlu, V. (2007). *İnsan hakları sözlüğü*. Özen Matbaacılık .

Tükçe Sözlük. (2019). *Türk dil kurumu yayınları*. (11. baskının tıpkıbasımı). Özgün Matbaacılık.

Yaşaroğlu, C. & Biçer, R. (2020). İlkokul öğrencilerinin kök değerlere ilişkin metaforik algılarının incelenmesi. *Journal of Social and Humanities Sciences Research*, *7*(52), 996-1005.

Yıldırım, A. & Şimşek, H. (2013). Sosyal bilimlerde nitel araştırma yöntemleri (9. baskı). Ankara: Seçkin Yayıncılık.

Yılmaz, F., Göçen, S. & Yılmaz, F. (2013). Sokakta çalışan ve çalışmayan ilköğretim öğrencilerinin sosyal bilgiler programındaki değerlere ilişkin algıları. *e-Uluslararası Eğitim Araştırmaları Dergisi*, *4*(1), 82-99.

Appendix 1. Word Association Test

This form was prepared to reveal the cognitive structure that secondary school students have towards the concepts related to multiculturalism. Please write the first words that come to your mind about the key concepts in the form. Your answer time for each key concept is 60 seconds.

Key Concept	Word
Culture	
Culture	
Culture	
Culture	
Culture	
Culture	
Culture	
Culture	
Culture	
Culture	