

How Much TRT EBA TV Teaching Videos Contribute to Values Education?

TRT EBA TV'deki Öğretim Videoları Değerler Eğitime Ne Kadar Katkı Yapıyor?

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Abstract

Ensuring nationwide adherence to fundamental/root values disseminated through educational platforms like TRT EBA TV, administered by the Ministry of National Education, holds paramount importance. The aim of this study is to analyze the root values presented in science teaching videos from 5th to 8th grades on TRT EBA TV. The study utilized document analysis method. A total of 27 teaching videos on TRT EBA TV for 5th to 8th graders were analyzed. The findings revealed that although the teaching videos addressed some of the ten root values, they did not fully encompass all of them. Nonetheless, the study highlighted that despite the abstract nature of science lessons, the root values are predominantly emphasized. This indicates the feasibility of integrating values education into science disciplines. Furthermore, the study offers recommendations for effectively enhancing students' acquisition of these ten root values.

Keywords: Science Education, Values Education, TRT EBA TV, Media, Root Values.

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Öz

Millî Eğitim Bakanlığına bağlı bir kanal olan TRT EBA TV'deki öğretim videoları aracılığıyla yayılan kök değerlerin ülke genelindeki tüm öğrenciler tarafından benimsenmesi büyük önem taşımaktadır. Bu çalışmanın amacı, TRT EBA TV'de 5. sınıftan 8. sınıfa kadar fen bilimleri öğretim videolarında sunulan kök değerleri analiz etmektir. Çalışmada doküman analizi yöntemi kullanılmıştır. TRT EBA TV'de 5. sınıftan 8. sınıfa kadar yayınlanan toplam 27 öğretim videosu analiz edilmiştir. Elde edilen sonuçlar, öğretim videolarının on kök değerden bazılarını kapsadığını, ancak hepsini kapsamadığını göstermiştir. Bununla birlikte, çalışma fen derslerinin soyut doğasına rağmen, kök değerlerin hepsi olmasa da çoğuna vurgu yapıldığını ortaya koymuştur. Bu da değerler eğitiminin fen disiplinlerine entegre edilmesinin mümkün olduğunu göstermektedir. Çalışma ayrıca, öğrencilerin on kök değeri edinmelerini geliştirmek için etkili yollar önermektedir.

Anahtar Kelimeler: Fen Eğitimi, Değerler Eğitimi, TRT EBA TV, Medya, Kök Değerler.

Introduction

Human values are not innate; rather, they are acquired through social interactions and learning. The social milieu significantly influences an individual's value system, with the family serving as the primary environment where values are instilled. Values education commence within the family structure, akin to other forms of education (Başçı, 2012; Karaduman et al., 2017; Yılmaz & Kıran, 2023). Within the family unit, children are introduced to societal norms, customs, and beliefs, preparing them for integration into society. As the cornerstone of value education, families play a pivotal role in helping children comprehend and internalize values, thus contributing to their overall personality development (Akyol, 2010; DeCastro-Ambrosetti & Cho, 2005; Yorulmaz, 2017).

Varying economic, cultural, and social factors influence how each family interprets and imparts values, resulting in the development of diverse value systems among individuals. To foster a collective understanding of values and ensure a systematic approach to value education, it is imperative to extend value education into the school environment (Aneja, 2014; Çelikkaya et al., 2014; Kanagatova, 2018). Schools, being formal educational institutions, play a crucial role in nurturing students holistically, encompassing both cognitive and affective domains. Indeed, schools aim to cultivate individuals who embody fundamental human values, making both in-school and extracurricular activities integral to values cultivation (Aneja, 2014; Deveci & Ay, 2009; Yıldırım, 2009).

The prioritization of academic success in schools has been linked to various social issues, including a rise in negative phenomena such as violence, sexual abuse, and intolerance towards diversity, highlighting the imperative of value education (Çetinbaş, 2015; Meço & Coştu, 2023; Susar Kırmızı, 2014; Şentürk, 2008). Recognizing the urgency of the matter, educators and researchers emphasize that value education is not merely important but rather indispensable. Therefore, the Ministry of National Education (MoNE) has taken proactive measures to address this issue, developing interactive learning materials (e.g., MEB, 2022, 2023).

Numerous recent studies have also delved into this subject (e.g., Akdemir, 2022; Herdem & Çinici, 2021; Meço & Coştu, 2023; Şentürk, 2020; Topal, 2019). Value education was initially integrated into school curricula in 2005, gaining momentum in research and initiatives since 2010. The 2018 curriculum update notably underscored the importance of value education, identifying ten root values and elucidating attitudes and behaviors aligned with them

(MEB, 2017, 2018). Both the curriculum's emphasis on values education and scholarly discourse suggest that teachers play a pivotal role in imparting values to students (Aneja, 2014; Topal, 2019). Thus, regardless of their subject area, teachers should not only impart knowledge and skills but also ensure that students embrace cultural and societal values, thereby fostering a national ethos. In this capacity, textbooks and other written and visual teaching materials serve as essential tools and references for teachers (e.g., Akdemir, 2022; Aydın, 2020; Özkanal et. al., 2020; Koltaş, 2020; Meço & Coştu, 2023).

Social studies courses often come to mind focusing on value education. However, value education transcends specific subjects and possesses an interdisciplinary nature. While it may initially appear that the science curriculum is unrelated to values education (Meço & Coştu, 2023), closer examination of its content and objectives reveals its significant contribution to values education (Akdemir, 2022; Herdem & Çinici, 2021; Meço & Coştu, 2023; Şentürk, 2020). Science is essentially an attempt to understand natural phenomena through empirical observation. Every aspect of nature becomes a subject of scientific inquiry, rendering science inherently relevant to daily life (Herdem & Çinici, 2021; Laçın Şimşek, 2004). It is not merely about providing information but also about fostering a mindset grounded in logical reasoning and inquiry. Additionally, it involves developing scientific process skills such as hypothesis formulation, observation, data collection, and presentation of findings (e.g., Aydoğdu & Kesercioğlu, 2005; Çepni, 2019; Tekbıyık & Çakmakcı, 2018).

Through the study of science, students not only gain cognitive knowledge but also cultivate affective traits. For example, during experiments, they acquire values like cooperation, responsibility, and ethics. Furthermore, topics related to nature and the environment in the science curriculum promote values associated with environmental sensitivity and conservation (Laçın Şimşek, 2004; Şentürk, 2020; Yaman, 2019). Collectively, these aspects demonstrate the close connection between the science curriculum and values education. Since 2004, the overarching goal of the science curriculum has been to nurture scientifically literate individuals, defined as individuals engaged in research, critical thinking, problem-solving, and creativity (MEB, 2013; Tekbıyık & Çakmakcı, 2018).

The science curriculum has undergone four main revisions in the past 16 years. Analysis of these updates in 2005, 2013, 2017, and 2018 reveals an increasing emphasis on value education within the science curriculum (MEB, 2005, 2013, 2017, 2018; Tekbıyık & Çakmakcı, 2018). In the 2005 curriculum, value education was

delineated into three learning areas: Science-Technology-Society-Environment (STSE), Attitudes and Values, and Science Process Skills (SPS) (Karataş, Timur, & Timur, 2013; Tekbıyık & Çakmakçı, 2018). The 2013 amendment introduced the domain of affective learning alongside SPS and STSE areas (MEB, 2013; Karataş, Timur, & Timur, 2013; Tekbıyık & Çakmakçı, 2018). With the latest revision in 2018, value education is integrated into the curriculum under the title of “root values,” with clear definitions (MEB, 2018; Deveci, 2018; Topal, 2019). The ten root values identified in the science curriculum are justice, friendship, honesty, self-control, love, respect, responsibility, patience, patriotism, and benevolence.

Various materials are utilized during educational activities, particularly amidst pandemics, with TRT EBA TV being one such resource (Aydın, 2020; Özkanal et. al., 2020; TEDMEM, 2020; Tonbuloğlu, 2021). EBA (Education Information Network) is a distance education platform developed by the MoNE and has recently undergone a complete overhaul. TRT EBA TV was launched for the purpose of facilitating distance education in response to virus containment measures. EBA TV functions as a television channel airing instructional videos aligned with the curriculum set forth by the MoNE across different grade levels. The programming on EBA TV spans primary, middle, and high school education (EBA, 2020). Through the broadcasts on TRT EBA TV, concerted efforts were made to ensure that students remained engaged with their studies during the pandemic. Lessons on EBA TV were delivered through 20-minute instructional videos within designated programs for each academic subject. Specifically for the core subject of science, lesson videos were tailored for students at the 5th, 6th, 7th, and 8th grade levels. This period saw a prevalence of distance education via television, which, unlike internet-based education, could easily reach every household. Moreover, this mode of education upheld the principles of equality and fairness in access to education, acknowledging that not all households had internet connectivity. Television, being one of the most widely used mass media platforms, has long been integral to the distance education process. It supports education at various levels, from preschool to university, through a plethora of educational broadcasts and channels. In examining educational programming on television, those centered on news and general information are typically classified as “supplementary education,” whereas programs aimed at imparting vocational skills, fostering adaptation to technological advancements, and broadening individuals’ horizons are categorized under “non-formal education” (Yıldırım & Ekici, 2016).

Several studies have investigated the use of television across various fields and disciplines within the realm of distance education. Osmanoğlu (2020) exam-

ined the instruction of the “Social Studies” course on EBA TV, analyzing course content, and soliciting feedback from educators regarding the instructional environment. Conversely, Yolcu and Kurt (2021) identified challenges faced by teachers who exhibited positive attitudes towards EBA during the COVID-19 pandemic, particularly concerning the utilization of the EBA live lesson application. Özkanal et al. (2020) focused on prospective teachers’ assessments of “English” lessons broadcasted on EBA TV, while Bozkaya (2006) investigated the self-efficacy perceptions of distance education undergraduate students regarding learning from televised programs. Yıldırım and Ekici (2016) examined an educational program aired on the TRT Okul channel with respect to its alignment with “Biology” course objectives. Aydın (2020) analyzed the delivery and effectiveness of “Turkish Language” lessons delivered through EBA TV, as perceived by secondary school students. Furthermore, studies conducted at the primary and preschool levels have explored additional dimensions of television’s impact on education. Güney (2008) investigated the correlation between 3rd grade students’ television viewing habits and their performance in life science lessons, while Thakkar et al. (2006) assessed the influence of TV programs on the cognitive development of preschool children. Furthermore, existing studies (e.g., Çinemre, 2021; Yakut, & Yakut, 2022) in the relevant literature demonstrate that educational cartoons play a significant role in fostering students’ values education by highlighting root value. Overall, these studies have addressed numerous educational issues. However, there remains a notable gap in the literature concerning the extent to which the emphasis on values education within recent science curricula in our country has been reflected in science teaching videos produced for the TRT EBA TV channel. This study aims to address this gap.

Building on the aforementioned, this study endeavors to examine the foundational values presented in science instructional videos tailored for 5th to 8th-grade students on TRT EBA TV.

Method

Research Model

This study presents a descriptive research aimed at examining the “Science” teaching videos available on TRT EBA TV (<https://www.eba.gov.tr/trt-ebatv>) within the context of values education. The study utilized the qualitative research method of document analysis. Document analysis involves the examination of auditory, visual,

or written files to extract meaningful data and generate insights from existing information (Yıldırım and Şimşek, 2008; Morgan, 2022; Corbin & Strauss, 2014). In this research, teaching videos of “Science” courses at the 5th, 6th, 7th, and 8th grade levels on the TRT EBA TV platform were reviewed, and they were analyzed in terms of root values. The teaching videos subject to examination in this study prepared based on the “Science Course Curriculum” (MEB, 2018) implemented in 2018.

For this research, a total of 27 videos were selected (from approximately 27-28 teaching videos per grade level), one unit from each grade level (5th, 6th, 7th, and 8th grades), as part of the curriculum designated by the MoNE. The selection of videos for analysis in this study was based on specific criteria aligned with the research objectives. Videos were chosen from the TRT EBA TV platform, focusing on “Science” courses for grades 5th through 8th. The criteria for selection included relevance to the designated curriculum outlined by the MoNE, coverage of key scientific concepts, and availability of content addressing values education. Additionally, efforts were made to ensure diversity in topics and teaching styles across the selected videos. While the sample size of 27 videos may not capture every possible variation, it was deemed sufficient to provide a representative snapshot of the content available on the platform. The specific criteria used for video selection were determined in consultation with educational experts and researchers in the field. These videos were systematically analyzed. A comprehensive overview of the analyzed teaching videos is provided in the Table 1.

Table 1: Distribution of Videos Used in the Study by Unit, Subject and Grade.

| Grade | Units | Subjects | Videos |
|-----------------|---|--|-----------|
| 5 th | Human and Environment | Biodiversity | 4 |
| | | Human and Environment Relationship | 4 |
| | | Destructive Natural Events | 3 |
| 6 th | Systems in Our Body and Health | Controlling and Regulating Systems | 3 |
| | | Sense Organs | 3 |
| | | Health of the Sensory Organs | 2 |
| 7 th | Reproduction, Growth and Development in Living Things | Reproduction, Growth and Development in Humans | 2 |
| | | Reproduction, Growth and Development in Plants and Animals | 2 |
| 8 th | Energy Transformations and Environmental Science / Living Things and Life | Material Cycles and Environmental Problems | 3 |
| | | Sustainable Development | 1 |
| Total | | | 27 |

Data Collection Tools and Analysis

Data collection was carried out individually for every grade level. These teaching videos were scrutinized with particular attention to the ten root values endorsed by TTKB (2017), as delineated in Table 2. The process of data collection was conducted independently for each grade level.

Table 2: Root Values Adopted by MEB (TTKB, 2017).

| Values | Some Attitudes and Behaviors Related to Values |
|-----------------------|--|
| Justice | “Fairness, equal treatment, sharing” |
| Friendship | “Altruism, trust, understanding, solidarity, loyalty, faithfulness, loyalty, cooperation” |
| Honesty | “Being clear and understandable, being truthful, being reliable, keeping your word” |
| Self-Control | “Controlling their behavior, taking responsibility for their behavior, having self-confidence, apologizing when necessary” |
| Patience | “Perseverance, perseverance, endurance, knowing how to wait” |
| Respect | “Being humble, treating others the way you want to be treated, valuing other people’s personalities, considering the position, characteristics and situation of the interlocutor” |
| Love | “Giving importance to family unity, making sacrifices, having trust, being compassionate, being loyal” |
| Responsibility | “Being responsible for oneself, one’s environment, one’s homeland and one’s family; keeping one’s word, being consistent and reliable, and taking the consequences of one’s actions” |
| Patriotism | “Being hardworking, solidarity, obeying rules and laws, being loyal, being sensitive to historical and natural heritage, caring about society” |
| Benevolence | “Being generous, cooperating, being compassionate, being hospitable, sharing” |

The study utilized a descriptive content analysis approach to examine videos related to science courses. Content analysis is a method used to systematically evaluate the content of texts, documents, or other forms of communication in order to uncover meaningful insights and patterns. This technique is widely employed across various disciplines such as social sciences, communication, psychology, marketing, and media studies (Khoa, Hung, & Hejsalem-Brahmi, 2023). The content analysis of the videos was conducted collaboratively by the author, who has authored several papers on values education, and four experienced science teachers, one at each grade level. These teachers have contributed to research on integrating values into educational videos. Throughout this process, videos referencing any of the 10 root values outlined in Table 2 were closely monitored for additional examination. This study was conducted within the framework of a postgraduate course focusing on interactive teaching methods and the integration of values education into the curriculum. The collaborative analysis involving the four contributing teachers took place during discussions

with the author of the article throughout this course. It is important to highlight the active participation of these teachers in the data analysis process, drawing from their extensive teaching experiences to provide valuable insights and perspectives. While their contributions greatly influenced the research process, they did not seek authorship or partnership. Their valuable input is acknowledged and appreciated at the end of the article as a gesture of gratitude for their contributions. Next, the pertinent root value found in each video was identified and documented accordingly. The collected data was then organized into table to ascertain the root values associated with each grade level in the science videos. The results were comprehensively presented and analyzed in the findings section.

The analysis of the videos involved collaboration between the author and four experienced science teachers. Initially, they collectively reviewed the videos on TRT EBA TV, identifying the primary root values and sub-values highlighted in the statements and explanations. Subsequently, the documented statements or explanations emphasizing values were compiled into a word document. This document was then submitted to a science education expert specializing in values education. The expert independently assessed which root values and sub-values corresponded to these expressions. The classifications assigned by the researcher and the science teachers regarding values were cross-referenced with those provided by the science educator. Impressively, there was a notable 96% agreement between the two sets of classifications. In instances of discrepancies, discussions were conducted to achieve consensus. The rigorous implementation of this process during the analysis greatly enhanced the validity and reliability of the research findings. As the research presented in this study entails analyzing existing videos utilized in middle schools through document analysis, it qualifies as exempt research, and thus, it did not necessitate approval from the ethics committee.

Validity and Reliability

The validity and reliability of the findings in this study were rigorously addressed to ensure the robustness of the research process. Internal and external validity were carefully considered and managed throughout the study. Internal validity refers to the extent to which the study accurately measures the constructs it intends to measure. In this study, internal validity was upheld through various means. Firstly, the collaborative analysis involving the author and four experienced science teachers provided diverse perspectives and insights, contributing to the comprehensive examination of the videos. Secondly, the con-

sistent application of predefined criteria for identifying and documenting root values helped mitigate the risk of bias or misinterpretation. External reliability assesses the stability of the study's findings over time and across different observers or raters. While the specific videos analyzed in this study may vary, the methodological approach and criteria for identifying root values can be replicated by other researcher(s), thereby enhancing external reliability.

Results

In this section, the research findings regarding the distribution of values in the teaching videos for 5th, 6th, 7th, and 8th grades are presented in the table corresponding to their respective grade levels. Additionally, sample direct quotations related to the values depicted in the videos are included to illustrate their portrayal. The root values highlighted in the teaching videos on TRT EBA TV are summarized in Table 3.

As seen from Table 3, the analysis elucidates the root values underscored in the teaching videos in the TRT EBA TV across various grade levels. In the 5th grade, it was noted that values such as "friendship", "honesty", and "patience" were absent. Concerning biodiversity, patriotism emerged as the most prevalent value ($f=16$), whereas love was the least prevalent ($f=1$). Within the subject of "Human and Environmental Relations", respect stood out as the most prominent value ($f=20$), while self-control ranked lowest ($f=2$). Similarly, within the subject of "Destructive Natural Events", "respect" was the most frequently occurring value ($f=8$), whereas "benevolence" value was the least frequently occurring ($f=1$). Across the entirety of the unit, respect ($f=36$), patriotism ($f=28$), and responsibility ($f=13$) were the predominant values, with love ($f=1$) being the least common.

As observed from Table 3, the analysis delves into the fundamental values emphasized within the teaching videos presented on TRT EBA TV across different grade levels. In the 6th grade, notable patterns emerge. Within the subject of "Controlling and Regulating Systems," respect ($f=20$) emerges as the most prevalent value, followed closely by responsibility ($f=9$) and friendship ($f=7$). Conversely, self-control ($f=2$) and love ($f=1$) are less frequently emphasized. The overarching theme of respect ($f=25$), responsibility ($f=13$), and friendship ($f=7$) persists throughout the unit, underscoring their importance in this educational context.

Table 3: The Root Values Emphasized in the Teaching Videos on the TRT EBA TV Across Various Grade Levels.

| Grade | Unit | Subjects | Justice | Friendship | Honesty | Self-control | Patience | Respect | Love | Responsibility | Patriotism | Benevolence | Total |
|-----------------|---|--|---------|------------|---------|--------------|----------|---------|------|----------------|------------|-------------|-----------|
| 5 th | Human and Environment | Biodiversity | 2 | - | - | 2 | - | 8 | 1 | 6 | 16 | 2 | 37 |
| | | Human and Environment Relationship | - | - | - | 2 | - | 20 | - | 4 | 10 | 4 | 40 |
| | | Destructive Natural Events | - | - | - | 4 | - | 8 | - | 3 | 2 | 1 | 18 |
| 6 th | Systems in Our Body and Health | Controlling and Regulating Systems | | | | | | | | | | | |
| | | Sense Organs | - | 7 | 1 | 4 | 2 | 3 | - | 20 | 4 | 9 | 50 |
| | | Health of the Sensory Organs | | | | | | | | | | | |
| 7 th | Reproduction, Growth and Development in Living Things | Reproduction, Growth and Development in Humans | 4 | - | 3 | 4 | 2 | 5 | 5 | 5 | 1 | 4 | 33 |
| | | Reproduction, Growth and Development in Plants and Animals | - | 1 | - | 1 | - | 5 | 2 | - | 1 | 1 | 11 |
| 8 th | Energy Transformations and Environmental Science / Living Things and Life | Material Cycles and Environmental Problems | - | - | 2 | 6 | - | 8 | - | 7 | 1 | 1 | 25 |
| | | Sustainable Development | - | - | - | 8 | - | 3 | - | 5 | 11 | - | 27 |

Based on the data presented in Table 3, the findings regarding the teaching videos focusing on “Reproduction, Growth and Development in Living Things” for the 7th grade are as follows: In the subject dedicated to “Reproduction, Growth and Development in Humans,” the most prevalent value observed is “love” with a frequency of 5, followed by “responsibility” and “respect,” both with a frequency of 4. “Patience” and “benevolence” are also notable, each with a frequency of 3. The least prevalent value is “self-control” with a frequency of 1. Conversely, in the subject concerning “Reproduction, Growth and Development in Plants and Animals,” “respect” emerges as the most common value with a frequency of 5, followed by “love” with a frequency of 2. “Responsibility,” “patience,” and “benevolence” are each observed once, while “self-control” is absent. Overall, across both subjects, “respect” is the most frequently occurring value, while “self-control” is the least prevalent. These findings provide insights into the values emphasized in the teaching videos related to reproduction, growth, and development in living things for 7th grade students.

Based on the data presented in Table 3, the findings regarding the teaching videos focusing on “Energy Transformations and Environmental Science / Living Things and Life” for the 8th grade are as follows: In the subject dedicated to “Material Cycles and Environmental Problems,” the most prevalent value observed is “respect” with a frequency of 8, followed by “responsibility” with a frequency of 7. “Love” and “patriotism” are also notable, each with a frequency of 6. “Friendship,” “honesty,” and “self-control” are each observed once, while “justice” and “benevolence” are absent. Conversely, in the subsection concerning “Sustainable Development,” “patriotism” and “love” emerge as the most common values, both with a frequency of 11. “Responsibility” follows closely with a frequency of 8. “Respect” is also notable with a frequency of 5. “Honesty” and “benevolence” are absent. Overall, across both subsections, “respect” and “patriotism” are the most frequently occurring values, while “justice,” “self-control,” and “benevolence” are absent or least prevalent. These findings provide insights into the values emphasized in the teaching materials related to energy transformations, environmental science, and sustainable development for 8th grade students.

To illustrate the emphasis on fundamental values in the teaching videos in the TRT EBA TV across different grade levels, excerpts from sample explanations/statements are provided below, along with the corresponding values and sub-dimensions they highlight. Due to the challenge of qualitatively presenting all values in Table 3 for each level, sample statements from 6th grade live lesson videos, where significant value emphasis was noted, are presented:

“During adolescence, an individual may aspire to make their own decisions and seek autonomy; however, it should be noted that it is early to strive for complete independence. During this period, it is of paramount importance to consider the recommendations of parents and teachers./*Ergenlik döneminde birey, kendi kararlarını kendisi vermek ve özgür olmak isteyebilir ancak tamamen bağımsız bir birey olmak için henüz erken olduğu unutulmamalıdır. Bu süreçte anne, baba ve öğretmenlerin önerilerinin dikkate alınması son derece önemlidir*” (Responsibility- being responsible to one’s family / Self-control-controlling one’s behavior) [Controlling and Regulating Systems- <https://www.eba.gov.tr/trt-ebatv/izle/899069d93d528fcec4b3db4491a19f2035b5117f44>]

“Sharing feelings and thoughts with parents and teachers is essential / *Duygu ve düşünceleri anne babayla, öğretmenlerle paylaşmak gerekir*” (Honesty-being frank) [Controlling and Regulating Systems- <https://www.eba.gov.tr/trt-ebatv/izle/899069d93d528fcec4b3db4491a19f2035b5117f44>]

“During this period, it is as important to understand the thoughts and feelings of those around you as it is to be understood/Bu dönemde anlaşılmak kadar çevrenizdekilerin düşüncelerini ve duygularını anlamak da önemlidir” (Patience-being understanding/Friendship-supporting friends/ Respect-valuing people) [Controlling and Regulating Systems- <https://www.eba.gov.tr/trt-ebativ/izle/899069d93d528fcec4b3db4491a19f2035b5117f44>]

“Trying to understand the values and culture of the society we live in will strengthen our communication with our social environment./İçinde yaşadığımız toplumun değerlerini, kültürünü anlamaya çalışmak sosyal çevremizle iletişimi-mizi güçlendirecektir” (Respect-valuing people/Patience-showing understanding) [Controlling and Regulating Systems- <https://www.eba.gov.tr/trt-ebativ/izle/899069d93d528fcec4b3db4491a19f2035b5117f44>]

“Learn sign language and help create a world without barriers/Engelsiz bir dünya için sen de işaret dili öğren ve onlara yardımcı ol” (Friendship-supporting friends / Benevolence-helping people) [Sense Organs-<https://www.eba.gov.tr/trt-ebativ/izle/859060ac0b7be0d6445959ed0466dd4119f8e17f44>]

“Both our government and local administrations are undertaking many efforts to facilitate the lives of individuals with disabilities and eliminate the challenges they face/Hem devletimiz hem de yerel yönetimler engelli bireylerin yaşamlarını kolaylaştırmak ve karşılaştıkları güçlükleri ortadan kaldırmak için birçok çalışma yapmaktadır” (Patriotism-productive / Benevolence-working for the benefit of humanity) [Sense Organs-<https://www.eba.gov.tr/trt-ebativ/izle/859060ac0b7be-0d6445959ed0466dd4119f8e17f44>]

“Scientists are also conducting research to eliminate the barriers faced by people with visual and hearing impairments or to make their lives easier/Bilim insanları görme ve işitme engeli olan insanların bu engellerini ortadan kaldırmak ya da yaşamlarını kolaylaştırmak için de çalışmalar yürütmektedirler” (Responsibility-being responsible to one’s country / Benevolence-working for the benefit of humanity) [Sense Organs-<https://www.eba.gov.tr/trt-ebativ/izle/859060ac0b7be-0d6445959ed0466dd4119f8e17f44>]

“To protect our eye health, we should shield our eyes from intense light and harmful rays/Göz sağlığımızı korumak için gözlerimizi şiddetli ışıktan ve zararlı ışıklardan korumalıyız.” (Responsibility-being responsible to oneself) [Sense Organs-<https://www.eba.gov.tr/trt-ebativ/izle/859060ac0b7be-0d6445959ed0466dd4119f8e17f44>]

“Nasal hygiene, avoiding foreign objects, and clean air are crucial for nasal health / *Burun sađlığını korumak için burun temizliğine özen göstermeliyiz. Burna yabancı cisimler sokmalıyız.*” (Responsibility: being responsible for oneself) [Sense Organs-<https://www.eba.gov.tr/trt-ebativ/izle/859060ac0b7be0d6445959ed0466dd4119f8e17f44>]

“Preventing circulatory issues includes avoiding harmful substances and a balanced diet / *Dolaşım sistemimizin sađlığını korumak için; sigara, alkol ve uyuşturucu gibi sađlığa zararlı maddelerden uzak durulmalıdır.*” (Responsibility: being responsible to oneself) [Health of the Sensory Organs- <https://www.eba.gov.tr/trt-ebativ/izle/267760ac0b7be0d6445959ed0466dd4119f8e17f44>]

“Innovations like color blindness glasses improve the lives of affected individuals / *Yeni geliştirilen renk körlüğü gözlükleri bu bireylerin hayatlarını kolaylaştırmaktadır*” (Benevolence: working for the benefit of humanity) [Sense Organs-<https://www.eba.gov.tr/trt-ebativ/izle/859060ac0b7be0d6445959ed0466dd4119f8e17f44>]

“Unsupervised drug use can exacerbate health issues; always consult a doctor before medication / *Bilinçsiz ilaç kullanımı sađlığımıza kavuşmak isterken vücudumuzda daha ciddi hastalıkların ortaya çıkmasına neden olabilmektedir. Bu nedenle kesinlikle doktor reçetesi olmadan, bir tanıdığımızın tavsiyesiyle bile olsa herhangi bir ilacı kullanmamalıyız*” (Responsibility-being responsible to oneself) [Health of the Sensory Organs- <https://www.eba.gov.tr/trt-ebativ/izle/267760ac0b7be0d6445959ed0466dd4119f8e17f44>]

Discussion and Conclusion

The analysis presented in this study provides insights into the distribution and emphasis of fundamental values within the teaching videos broadcasted on the TRT EBA TV across various grade levels. The findings shed light on the values underscored in the educational content, offering valuable implications for curriculum design and instructional strategies. The examination of teaching videos targeting 5th grade students revealed a notable absence of values such as “friendship,” “honesty,” and “patience.” However, patriotism emerged as the most prevalent value, particularly in lessons concerning biodiversity. This suggests a potential gap in addressing interpersonal values critical for social development. Nevertheless, the prominence of values like “respect” and “responsibility” underscores

their importance in shaping ethical perspectives among students. In the 6th grade, an analysis of teaching videos highlighted a significant emphasis on values related to “respect,” “responsibility,” and “friendship.” Notably, the subject of “Controlling and Regulating Systems” prioritized fostering respect and responsibility, indicative of efforts to instill ethical behavior and accountability. These findings underscore the role of educational platforms in promoting values essential for personal and social development during adolescence. For 7th grade students, teaching videos focusing on “Reproduction, Growth and Development in Living Things” emphasized values such as “love,” “respect,” and “responsibility.” While the importance of interpersonal values like “respect” was evident across both subjects, variations in value emphasis underscored the diversity of ethical considerations within different domains of study. Lastly, an examination of teaching videos targeting 8th grade students highlighted a multifaceted approach to values education, particularly concerning “Material Cycles and Environmental Problems” and “Sustainable Development.” While “respect” and “responsibility” remained prevalent values, the inclusion of values like “patriotism” and “love” reflected an emphasis on civic engagement and environmental stewardship. Overall, the findings suggest a nuanced approach to values education within the TRT EBA TV curriculum, with each grade level addressing a diverse range of values tailored to specific learning objectives. The integration of sample explanations and statements further enriches the educational experience, providing practical insights into applying values in real-life contexts. Moving forward, these findings can inform curriculum development initiatives aimed at cultivating ethical awareness and responsible citizenship among students across various grade levels.

Digital tools have emerged as effective mediums for values education, offering interactive and immersive learning experiences that engage students on multiple levels (e.g., Avcu & Yaman, 2022; Sarker et. al., 2019). By integrating root values into digital learning platforms, educators can create dynamic environments conducive to moral development and character building (Avcu & Yaman, 2022). Furthermore, the use of films and videos in teaching has garnered attention for its ability to evoke emotional responses and stimulate critical reflection (e.g., Brummett, 2013; Sharjeel & Dadabhoy, 2013). Incorporating root values into instructional videos and multimedia resources presents opportunities to reinforce ethical principles and cultivate empathy (e.g., Kaçmaz, 2020; Marshall, 2003;

Öztaş, 2017; Shoufan, 2019). In addition to discussing values within the context of science education, it is important to consider their integration across various disciplines. Root values should be incorporated not only into science teaching materials but also into broader course tools and curricula. Research suggests that values education is most impactful when integrated holistically into the educational experience (e.g., Miseliunaite, Kliziene, & Cibulskas, 2022). By infusing root values into all aspects of the curriculum, educators can create a cohesive learning environment that promotes ethical decision-making and responsible citizenship (Sharma, 2020). Furthermore, exploring the inclusion of root values in course materials beyond science education is essential for fostering holistic character development (Sarah et al., 2018). Studies have shown that values education transcends disciplinary boundaries, influencing students' attitudes and behaviors across diverse contexts (Aspin & Chapman, 2007; Minaz & Taş, 2020). By incorporating root values into literature, history, and social studies curricula, educators can reinforce ethical principles and promote moral reasoning skills.

The study offers valuable perspectives on the incorporation of values education in teaching videos aired on TRT EBA TV, illustrating the varying levels of emphasis on different root values across grade levels and subject areas. These insights provide direction for curriculum development, pedagogical approaches, and further research in the realm of values education within science subjects. This study underscores the importance of integrating values education into science to foster holistic character development and prepare students to be well-informed and responsible citizens in society. Additionally, the significance of this research lies in its examination of values education within the science curriculum. Integrating values education into the science curriculum is of paramount importance in the field of education. The science curriculum, serving as a structured framework for comprehending the natural world, presents a unique opportunity to instill essential values in students (Kristiwati, 2019). By promoting ethical awareness, critical thinking, and responsibility, values education within the science curriculum can contribute to holistic character development and informed citizenship. It has been demonstrated that integrating values education into the science curriculum fosters ethical awareness, enhances critical thinking skills, and promotes a sense of responsibility among students (Sarah et al., 2018). Research indicates that such education facilitates moral devel-

opment and equips students to be well-informed and responsible citizens in society (Kuhn & Dean, 2004; Lapsley & Narvaez, 2004). Previous research has shown significant attention to values education within the domains of physics, chemistry, and biology (Kolarova et al., 2013; Sarah et al., 2018; Sjöström & Eilks, 2018). These studies have emphasized the importance of integrating cultural and community values (Sarah et al., 2018), promoting environmental responsibility and sustainability (Sjöström & Eilks, 2018), and addressing ethical dimensions in biological advancements (Kolarova et al., 2013). While these findings offer valuable insights into the integration of values education within the realms of physics, chemistry, and biology, this study contributes by providing a comprehensive examination of values education within teaching videos. It addresses the specificities of values integration across different grade levels and subject areas. Furthermore, it underscores the need for pedagogical approaches to enhance values education in science education, thereby enriching discussions on character development and informed citizenship.

Suggestion

The findings of this study indicate that although science teaching is abstract in nature, they cover the majority of the ten fundamental values to varying extents, demonstrating that the course type and content do not necessarily impede values education. This discovery suggests that science educators should collaborate to identify which fundamental values are suitable for incorporation into specific units and how best to integrate them. Subsequently, these findings should be disseminated as research reports to teaching material development or the MoNE. Through this process, teaching material development of science teaching can actively contribute to enhancing students' acquisition of fundamental values by considering these aspects during development procedure. Alternatively, MoNE, as an official institution, can create subject-specific activities for each discipline and distribute them to teachers, mirroring the approach taken for values education since 2022 (MEB, 2022; 2023). Moreover, beyond simply acknowledging fundamental values in the existing science curriculum (MEB, 2018), future iterations of the science curriculum should provide detailed explanations of fundamental values and their acquisition within each subject area. By adopting such an approach, teaching material development can effectively emphasize

fundamental values throughout the presentation of topics, teaching science. It is anticipated that integrating these adjustments into the science curriculum will encourage teachers to give greater emphasis to values education, complementing the efforts of teaching material development. Lastly, early childhood represents a crucial developmental stage during which children begin to internalize information, experiences, and societal norms. Various studies in developmental psychology, including those by Piaget (1965) and Erikson (1968), underscore the importance of the early years in moral and social development. These foundational years are characterized by heightened receptivity to external influences, making it an opportune period for the introduction of values education (Killen & Smetana, 2015). From this standpoint, the study could be extended to include science teaching videos designed for 3rd and 4th grade students, where fundamental science concepts are introduced in primary education.

Etik Beyan / Ethical Statement: Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur. / It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited.

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