

21st Century Skills and the Role of the Teacher in Art Education*

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Abstract

The Purpose of the Study: *The 21st century is a period marked by rapid advancements in information and communication technologies, leading to profound transformations in individuals' lives. For individuals to succeed in both personal and professional spheres, it is crucial that they acquire the skills required by the modern era. In this context, art education emerges as an effective tool for developing fundamental skills such as creativity, critical thinking, and social awareness. Art education not only provides students with opportunities for self-expression but also equips them with the ability to approach complex problems from diverse perspectives and generate original, innovative solutions. This study aims to define 21st-century skills and highlight their importance. Additionally, it examines how these skills can be fostered through art education and explores the roles teachers play in this process by analyzing relevant literature and offering various recommendations. This study provides a theoretical basis for understanding the significance of 21st-century skills in individuals' lives. It emphasizes the critical role of art education in fostering competencies such as critical thinking, creative problem-solving, social awareness, and digital literacy. Within this framework, integrating art into education through interdisciplinary approaches is considered a key factor in enabling individuals to adapt to the rapidly changing world.*

Method: *The study was conducted using a literature review methodology. Research on the role of art education in fostering 21st-century skills was examined, and the findings from these studies were analyzed.*

Result: *Art education has been found to enhance 21st-century skills, equip individuals with the ability to approach complex problems from different perspectives, and increase social awareness. Through art education, students not only develop their personal expression skills but also acquire competencies such as teamwork, empathy, and leadership. Teachers' guiding roles in supporting this process are identified as a crucial factor for success.*

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Conclusion: Art education holds a significant place in the development of 21st-century skills. By fostering creativity and critical thinking, it contributes meaningfully to individuals' personal and professional growth. Accordingly, it is essential to position art education as a core component of curricula and ensure that teachers are trained to effectively support this process. The findings of this study reveal that art education is not only an effective tool for individual development but also for enhancing social awareness.

Keywords: 21st-Century Skills, Art Education, Teacher Candidates, Creativity, Visual Arts.

Sanat Eğitiminde 21. Yüzyıl Becerileri ve Öğretmenin Rolü

Öz

Çalışmanın Amacı: 21.yüzyıl, bilgi ve iletişim teknolojilerindeki hızlı ilerlemelerle bireylerin yaşamlarında köklü dönüşümlerin yaşandığı bir dönemdir. Günümüz bireylerinin hem kişisel hem de mesleki alanlarda başarılı olabilmeleri için çağın ihtiyaç duyduğu becerilere hâkim olmaları büyük önem taşımaktadır. Bu bağlamda sanat eğitimi; yaratıcılık, eleştirel düşünme ve toplumsal farkındalık gibi temel becerilerin geliştirilmesinde etkili bir araç olarak öne çıkmaktadır. Sanat eğitimi, öğrencilere yalnızca kendilerini ifade etme fırsatı sunmakla kalmaz; aynı zamanda karmaşık sorunlara farklı bakış açılarıyla yaklaşarak özgün ve yenilikçi çözümler üretme becerisi kazandırır. Bu çalışmanın amacı, 21. yüzyıl becerilerini tanımlamak ve bu becerilerin neden gerekli olduğunu ortaya koymaktır. Ayrıca, sanat eğitiminde bu becerilerin nasıl kazandırılacağı ve öğretmenlerin bu süreçte oynayacağı roller literatür ışığında incelenmiş, bu bağlamda çeşitli öneriler geliştirilmiştir. Bu çalışma, 21. yüzyıl becerilerinin bireylerin yaşamındaki önemine dair kuramsal bir zemin oluşturur. Eleştirel düşünme, yaratıcı problem çözme, toplumsal farkındalık ve dijital okuryazarlık gibi yetkinliklerin geliştirilmesinde sanat eğitiminin üstlendiği kritik rol ön plana çıkarılmaktadır. Bu bağlamda, disiplinler arası bir yaklaşım benimseyerek sanatın eğitime entegre edilmesi, bireylerin hızla değişen dünyaya uyum sağlamasında temel bir unsur olarak değerlendirilmektedir.

Yöntem: Bu çalışma, mevcut literatür taraması yöntemiyle gerçekleştirilmiştir. Sanat eğitiminin 21. yüzyıl becerilerinin kazandırılmasındaki rolü üzerine yapılan araştırmalar incelenmiş ve bu araştırmaların bulguları ışığında analiz yapılmıştır.

Bulgular: Sanat eğitimi, 21. Yüzyıl becerileri geliştirdiği, karmaşık problemlere farklı açılardan yaklaşma yetisini kazandırdığı ve toplumsal duyarlılığı artırdığı görülmüştür. Öğrenciler, sanat eğitimi aracılığıyla, bireysel ifade yetilerini geliştirirken aynı zamanda takım çalışması, empati ve liderlik gibi beceriler de edinmektedir. Öğretmenlerin bu süreci destekleyen rehberlik rolleri ise sürecin başarısında belirleyici bir faktördür.

Sonuç: Sanat eğitimi, 21. yüzyıl becerilerinin kazandırılmasında önemli bir yere sahiptir. Bu eğitim, bireylerin yaratıcılık ve eleştirel düşünme yeteneklerini geliştirerek hem kişisel hem de mesleki gelişimlerine değerli katkılar sunar. Bu doğrultuda, sanat eğitiminin müfredatın temel bir unsuru olarak konumlandırılması ve öğretmenlerin bu süreci etkin bir şekilde destekleyecek şekilde yetiştirilmesi büyük önem taşımaktadır. Çalışmanın sonuçları, sanat eğitiminin yalnızca bireysel gelişimi değil, aynı zamanda toplumsal duyarlılığı güçlendirme açısından da etkili bir araç olduğunu ortaya koymaktadır.

Anahtar Kelimeler: 21. Yüzyıl Becerileri, Sanat Eğitimi, Öğretmen Adayları, Yaratıcılık, Görsel Sanatlar.

1. Introduction

With the globalization of the economy and the increasing competitive environment at the international level, the rapid advancement of information and communication technologies is continuously transforming and changing our lives, our ways of working, and our methods of learning. In today's education system, the ability to understand and use information, to distinguish between what is important and unimportant, and to relate this knowledge to real life has become a crucial part of the knowledge acquisition process. Therefore, it is becoming increasingly important for individuals to receive education that equips them with essential skills and enables them to adapt to rapidly changing fields (Harari, 2018). Therefore, the skills and competencies that individuals need to acquire in order to adapt to the changing economic demands and workforce requirements of the 21st century should be re-evaluated (Otuz et al., 2018). Recognizing, developing, and guiding each individual's existing potential can be achieved through education (Kırışoğlu, 2002). The aim of art education is to cultivate creative and constructive individuals who can express themselves creatively, possess developed visual sensitivity, understand, explore, and preserve culture, and pass this on to future generations. To achieve these goals, art education must be implemented at all levels of schooling with uninterrupted and grade-appropriate curricula (Buyurgan & Buyurgan). An innovative educational model aims to equip students with the necessary skills to solve complex problems, develop creative projects, and engage in collaborative work. It is equally important to highlight the significance of 21st-century skills and concentrate on developing abilities such as effective communication, critical thinking, creativity, teamwork, and technological proficiency.

21st Century Skills

In the 21st century, societies have undergone significant transformation, and this era has been referred to as the "information age." Voogt and Roblin (2010) note that a new social structure has emerged in the information age, listing the fundamental elements that need to be improved in this information society as follows: knowledge construction, interoperability, knowledge management, critical thinking, and collaboration. Today, individuals are expected to have the ability to acquire the knowledge they possess, analyze and enhance this knowledge, produce new information, and effectively utilize the knowledge they have obtained (Ocak and Karakuş, 2018). Changes occurring in economic and cultural domains necessitate the integration of various practices in the field of education. An effective education system is essential for ensuring the sustainability of societies and increasing their

competitiveness. This situation requires an educational approach that is open to innovation, capable of creative thinking, and adaptable to change.

Although 21st-century skills are defined by various institutions and organizations under different headings, the content perspective generally shows similarities. The skills recorded by these organizations address how individuals can effectively use them in their professional lives and comprehensive daily lives. They also focus on important topics such as communication, collaboration, problem-solving, creativity, innovation, adaptation, and leadership (Larson and Miller, 2012). Standards provide a framework by defining the goals, expectations, and specific skill sets in education. Standards that include 21st-century skills determine how children can acquire these skills and the level they should achieve. Curricula and programs need to be designed to accommodate these standards (P21, 2015).

The Partnership for 21st Century Skills, which supports the integration of 21st-century skills in education, is a U.S.-based initiative established by partnerships between the private sector and government entities, including Apple, Cisco, Dell, Microsoft, and the National Education Association. During the time this coalition developed, business leaders played a successful role. In this respect, the information, skills, and competencies of interest are defined under four main categories: 1) Core Subjects and 21st Century Themes; 2) Learning and Innovation Skills; 3) Information, Media, and Technology Skills; 4) Life and Career Skills (Partnership for 21st Century Skills, 2009a).



Figure 1. According to P21, 21st-century skills

Source: <http://www.p21.org/>

The Partnership for 21st Century Learning (2017) project is a large-scale strategic educational initiative implemented in 21 states in the U.S. and supported by 33 different institutions. The skills and competencies that individuals should possess in this project are as follows:

Learning and Innovation Skills

Learning and innovation skills consist of four main competencies known as the 4Cs: critical thinking, communication, collaboration, and creativity. These skills include i) critical thinking and problem-solving, ii) effective communication, iii) the ability to collaborate, and iv) the capacity for creative thinking (Kylonen, 2012; Partnership for 21st Century Learning, 2007; Trilling and Fadel, 2009).

Critical Thinking and Problem Solving

Critical thinking refers to questioning the accuracy of information, evaluating alternative explanations, and analyzing the causes of relevant situations and the factors behind those causes, rather than immediately reaching a conclusion about any piece of information. By adopting a more inquisitive approach to events, it aims to uncover the validity, reliability, and reality of information or claims through evidence-based inquiries and investigations. This process involves assessing the accuracy of a subject according to various criteria (Erdem and Yazicioğlu, 2016). A problem can be defined as a challenge or obstacle that stands in the way of an individual's effort to achieve a goal. When faced with a situation, a person may experience an unexpected sense of imbalance or inconsistency. Encountering various problems is inevitable at every stage of life, from birth to old age. These issues serve as significant milestones in individuals' developmental processes (Yıldız and Ekşisu, 2011). Individuals face numerous problems in their daily lives. At this point, the ability to solve problems, which is one of the 21st-century skills, comes into play. Beyond being a skill that children use to cope with the issues they encounter in their daily lives, problem-solving is an essential competency that prepares them for the 21st century and supports them in facing the challenges of this era (Walker, Degnan, Fox & Henderson, 2013).

Problem-solving skills rank among the most important competencies at all educational levels (Ayva, 2018). In the 21st century, problem-solving and critical thinking skills are crucial not only for individuals' academic success but also for their effectiveness in social and professional lives. Developing these skills helps individuals become more resilient, creative, and effective in the face of challenges.

Creativity

One of the most important characteristics that distinguishes humans from other beings is the ability to think creatively. Throughout history, this concept, which has captured the interest

of societies, was thought to exist only in gifted and exceptionally talented individuals. Wallas defined creativity as a method of working and noted that it is a technique applied in the stages of work carried out by geniuses (Orhon, 2011).

Creativity can be defined as the ability to approach what everyone sees from a different perspective, to evaluate and think about familiar and commonly known situations from various angles (Dolgun and Erdoğan, 2012). Individuals with creative thinking skills are expected to be open to innovation and able to engage in creative activities with others, effectively develop, implement, and share new and original ideas. Moreover, viewing encountered mistakes as an inevitable part of the process and turning this situation into a learning opportunity is considered an essential element of the creativity process (Partnership for 21st Century Skills, 2019a).

Communication

Communication is the process of transferring information, emotions, thoughts, or ideas from one individual to another. This process occurs through the use of verbal or written language, body language, symbols, visuals, and other communication tools. Communication skills encompass the ability to effectively use written, verbal, and nonverbal communication methods to express thoughts and ideas. These skills also include actively listening in order to understand the conveyed information, values, attitudes, and intentions. Communication is used for various purposes, such as informing, giving instructions, motivating, and persuading. Proper evaluation of media and technology is among the important elements that enhance communication (Partnership for 21st Century Skills, 2019a).

Collaboration

Collaboration skills refer to the ability to work together with others. This includes effectively and efficiently collaborating in various environments and with diverse teams while demonstrating a respectful attitude. The ability to work collaboratively encompasses the skills of being flexible and making compromises when necessary to achieve common goals. Each individual is expected to take responsibility in accordance with the established goals and to value the contributions of others (Partnership for 21st Century Skills, 2019a).

Media Literacy

Media literacy is defined as the ability to access a wide range of messages, analyze and evaluate these messages, and then communicate them (Özonur and Özaplman, 2009). Media literacy enables individuals to develop a more conscious and critical approach to the messages conveyed by the media. Various sources, such as television programs, movies, visuals, texts, sounds, and websites, carry media messages. Ensuring that individuals remain conscious and attentive in the face of the diverse forms of media messages, ranging from

television advertisements to song lyrics, newspaper articles, and slogans on t-shirts, is one of the primary goals of media literacy (Pekman, 2011).

Technology Literacy

Technology literacy includes the ability to effectively use technological tools necessary for obtaining, organizing, and utilizing information. This encompasses the effective use of digital technologies such as computers, media players, GPS, as well as social media platforms and communication tools for accessing, managing, evaluating, and creating information. It also emphasizes the importance of being mindful of ethical and legal considerations in the use of information technologies (Partnership for 21st Century Skills, 2019a).

Information Literacy

According to Eric (2004), an information-literate individual should possess the abilities to recognize the information they need, ask the right questions to access that information, identify usable information sources, develop information-search strategies, effectively utilize technological tools, evaluate the Retrieved information, and organize it. Additionally, they should be able to integrate newly acquired information with existing knowledge and effectively use that information in critical thinking and decision-making processes (Başaran, 2015).

Life and Career Skills

Life and career skills are essential competencies that individuals need to develop in order to succeed in both their daily lives and professional careers. These skills play a critical role in personal development, social interaction, collaboration, and professional success.

Flexibility and Adaptability

Today, living and working conditions are constantly changing, and individuals are expected to adapt to these changes. The changes occurring in both daily life and in the workplace require individuals to quickly and easily adapt to different roles, schedules, and content. In this rapidly changing context, priorities and responsibilities often shift, and uncertainty may arise. Flexibility and adaptability skills reflect the ability to actively participate in processes under any circumstances, renew oneself in conjunction with change, and work effectively. Additionally, these skills include the ability to remain calm in the face of successes, failures, and criticism, while developing a respectful, solution-oriented, and understanding attitude in multicultural environments (Partnership for 21st Century Skills, 2019a).

Entrepreneurship and Self-Management

Today's students should be cultivated with entrepreneurship and self-management skills in schools to meet the demands of the 21st century. Providing each student with an

appropriate level of freedom in self-management and taking initiative by their parents and teachers enables change on both individual and universal scales. In this context, students are expected to possess the ability to plan goals and manage time, work independently, and self-manage in order to acquire entrepreneurship and self-management skills (Trilling & Fadel, 2009).

Entrepreneurship and self-management skills focus on the success individuals achieve in their personal and professional lives rather than merely academic success. Therefore, it is of great importance to instill these skills in individuals through education from an early age.

Social and Intercultural Skills

For the development of social and intercultural skills, students are expected to establish strong interactions with others and work efficiently in different teams. To communicate effectively, it is important to balance listening and speaking times appropriately, demonstrating a respectful and professional attitude. To work efficiently in diverse teams, it is necessary to collaborate effectively with local people while taking cultural differences into account, to approach a variety of ideas and values with tolerance, and to develop new ideas by leveraging social and cultural differences (Trilling & Fadel, 2009).

Productivity and Accountability

Productivity and accountability skills involve the responsibility of prioritizing, planning, and managing the process to achieve set goals, even when faced with pressure and obstacles.

21st Century Skills: Teacher and Art Education

In past educational systems, knowledge was perceived as content inscribed on a blank slate. In this approach, individual differences among individuals were overlooked, and a standardized education model was applied to everyone. The educational process was conducted in a fragmented manner by teachers, neglecting the active events occurring in intensity. Education was defined solely as a specific period during a certain timeframe and was viewed as a process that ended when a certain age was reached. This situation disregarded the reality that learning is a dynamic and continuous process. Today, there has been a shift from the traditional approaches based on the teacher's absolute authority toward a learner-centered model in education. The aim of these new structures is to enable individuals to acquire knowledge and use it effectively by constructing it on an appropriate foundation. It is now prioritized that individuals not only have access to information but also actively apply the elements contained within that information (Öğretir Özçelik, A. Y. Ş. E., & Tuğluk, M. 2018).

In a constructivist approach, the learner is at the center of the learning process. This process shapes the stages of content, planning, implementation, and evaluation according to

the learner's interests and engagement. The learner has the ability to construct their own learning, relate new information to previous experiences, benefit from social interactions, and carry out authentic learning tasks. Additionally, this approach offers a framework for developing affective and higher-order learning skills (Koç and Demirel, 2004).

Bandura (1969) defines teaching as a psychological element that influences students' mental, emotional, and social development through personality traits. Teachers, who act as role models, guides, and facilitators in the learning-teaching process, support all areas of development for individuals, including their academic and social growth. Teachers take on the responsibility of preparing individuals for life and the processes of acquiring personal attributes they will exhibit throughout their lives (Demir, 2015).

The role of the teacher in the process of social change is to create a quality educational process by evaluating all changes from the perspective of national culture, integrating beneficial elements into the education system at the highest level, and minimizing the damage that harmful effects may cause. Additionally, it is part of their role to use democratic methods in solving all kinds of social problems, reduce social pains in the adaptation process, and nurture individuals who can adapt to change (Çelikkaya, 1998).

Art education does not aim for individuals merely to become painters by creating beautiful paintings. The goal of this education is for children to develop their creativity and learn to solve problems from different perspectives. Furthermore, supporting individuals' talents and nurturing young people who are creative, self-confident, possess artistic literacy, and have aesthetic values are among the fundamental objectives of art education (Dikici, 2006).

When considering the effects of education on individuals and society, it is evident that it is essential to elevate our society above the level of contemporaneity. Art education plays a significant role in nurturing productive and pragmatic individuals that society needs. Given the purpose of art education, it aims to preserve the cultural wealth of our society and pass it on to future generations through individuals. "Regardless of the profession they choose, individuals who have received purpose-oriented art education and developed aesthetic sensitivity will contribute more to themselves and their society" (Buyurgan & Buyurgan, 2012).

Research indicates that the skills teachers need to possess in the 21st century are grouped into four fundamental competency areas: personal skills, digital skills, thinking skills, and communication skills. These areas are critical for teachers to be effective in the educational process and to guide students (Filiz, S. E. V. İ. L., 2022).

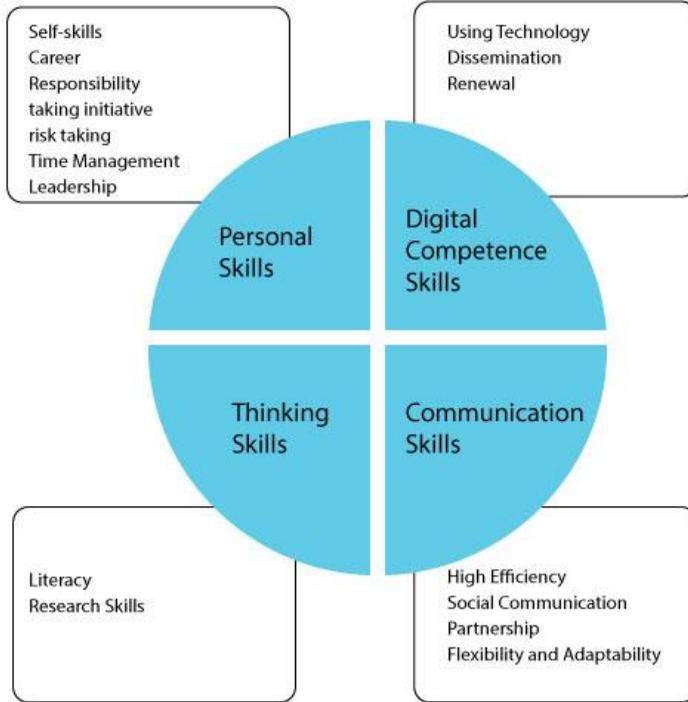


Figure 2. Adapted from P21, ISTE, NRC, and competency studies from Turkey

Source: Büyükalan Filiz, S (2022) 21. Yüzyıl Becerilerinin Eğitime Yansımaları, Pegem Yayıncılık P,77

Art education not only imparts the skills required for the 21st century but also greatly contributes to individuals' social and emotional development. In this context, it is critical for educational systems to place sufficient emphasis on art education as a vital step in nurturing productive, creative, and collaborative individuals for the future. The role of art education in developing these skills prepares individuals to be more effective and successful not only in artistic fields but in all areas of their lives.

2. Method

In this study, document analysis method was used. Document analysis is a scientific research method defined as the collection, review, inquiry, and analysis of various documents

as a primary source of research data. While this method predominantly serves as a complement to other research methods in the literature, it is also utilized as a standalone method.

3. Results and Conclusion

In the context of 21st-century education, developing core competencies such as creativity, critical thinking, communication, collaboration, and digital literacy has become a global priority (Trilling & Fadel, 2009; Voogt & Roblin, 2010). The reviewed literature consistently underlines that these skills are essential for individuals to succeed in both academic and real-life settings. Education is no longer confined to the passive transmission of knowledge but has evolved into a transformative process aimed at equipping learners with the ability to adapt, solve problems, and generate innovative solutions (Ocak & Karakuş, 2018; Harari, 2018).

Teachers play a pivotal role in this transformation. Moving beyond their traditional roles, they are now expected to guide, mentor, and act as ethical models within student-centered learning environments (Karadağ & Dulay, 2017; Yener, 2011). Research shows that when teachers adopt participatory and inclusive approaches, students demonstrate higher engagement, motivation, and skill development. Additionally, the integration of universal values such as empathy, respect, and responsibility into the educational process is largely dependent on the teacher's attitude and leadership (Demir, 2015; Çelikkaya, 1998).

Art education, in particular, has been identified as a vital instrument in fostering 21st-century competencies. Artistic processes support multidimensional thinking, self-expression, and emotional intelligence—skills increasingly emphasized in contemporary educational paradigms (Akkurt & Boratav, 2018; Buyurgan & Buyurgan, 2007). When embedded in interdisciplinary frameworks such as STEAM, art enhances cognitive and affective learning, encouraging students to approach problems with creativity and collaboration (Kylonen, 2012; Trilling & Fadel, 2009).

However, despite the extensive theoretical discourse, empirical studies that explore how teachers implement 21st-century skills through art education in practice remain limited (Filiz, 2022; Soruklu & Şentürk, 2023). Particularly in the Turkish context, further research is needed to examine how these competencies are embedded into curricula and reflected in classroom activities. Moreover, the actual challenges faced by teachers and students in integrating such approaches need to be better understood through context-sensitive, field-based investigations.

In conclusion, this study highlights the critical intersection between art education, teacher roles, and 21st-century skills. It demonstrates that art is not merely a creative outlet but a pedagogical tool that contributes to holistic human development. Accordingly, teacher

training programs and curriculum designs must reflect these insights to ensure that learners are empowered not only intellectually, but also socially and emotionally. Future educational policies should prioritize arts-based, interdisciplinary, and value-oriented teaching to foster adaptable, innovative, and responsible global citizens.

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