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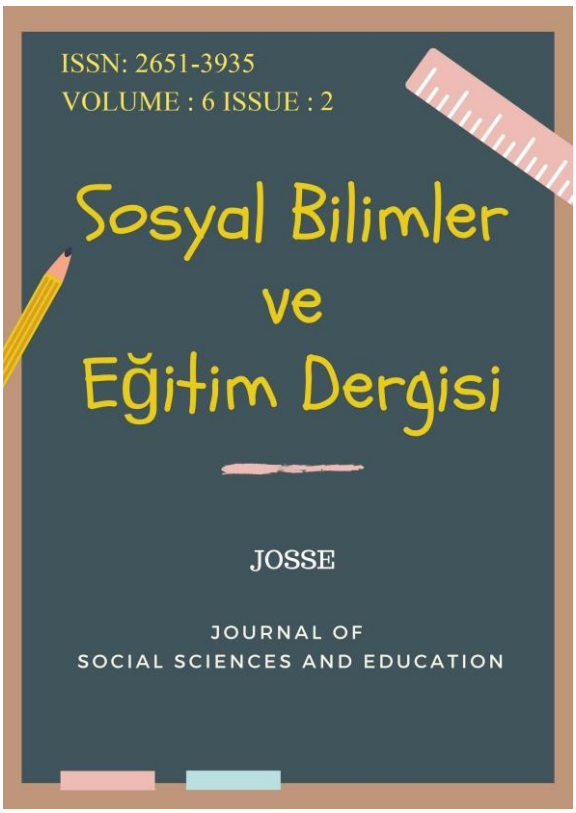

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Investigation of Social Studies Teachers' Design and Production-Oriented Teaching Activities in In-class/Out-of-School Learning Environments

* *This study was produced from the project titled "Investigation of Design and Production-Oriented Teaching Activities of Social Studies Teachers in In-class/Out-of-School Learning Environments", which was supported within the scope of TÜBİTAK 2209-A University students research projects with application number 1919B011902776, carried out by the first author under the supervision of the second author.*

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Abstract

In the current study, it is aimed to determine to what extent social studies teachers direct their students to design and production in in-class/out-of-school learning environments. The study employed the survey model, one of the quantitative research methods. The participants of the study are social studies teachers working in two provinces in the Southern Aegean in the 2020-2021 school year. In the study, the "Examination of Social Studies Teachers' Design and Production-Oriented Teaching Activities in In-Class/Out-of-School Learning Environments" questionnaire, developed by the researchers, was used to reveal to what extent social studies teachers support their students with design and production-oriented teaching activities. As a result of the study, it was revealed that teachers supported their students in the dimensions of interest and professional awareness at a "high" level. However, their support was found to be at a "medium" level in the activity dimension, engaging in activities dimension and design and production-oriented teaching dimension. Moreover, the extent to which the teachers include design and production-oriented teaching activities for students in in-class/out-of-class learning environments was found to not vary significantly depending on the variables of age, gender, education level and professional experience. Various and numerous design workshops can be opened to support students' design and production activities and to offer design and production-oriented teaching environments to teachers.

Keywords: Social studies, design and production-oriented teaching, in-class/out-of-school learning environments

Research Article

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Introduction

In the social studies classes, it is aimed to help students gain a "social personality". According to Sözer (1998), students in social studies classes gain experience in developing critical, constructive and creative thinking skills, acquiring problem-solving abilities, enhancing interpersonal relationships, learning collaboration and developing a sense of responsibility. In this respect, the social dimension of the social studies classes seems to be highly dominant. Within the social dimension, the expectations, orientations and goals of society should comply with what is taught within social studies classes to students. Therefore, attention has been paid to this harmony in the social studies curriculum. The 11th Development Plan of Turkey aims to strengthen the country's human capital by fostering an inclusive and high-quality education system that transforms knowledge into economic and social benefits and trains individuals who are inclined toward technology usage and production (Strateji ve Bütçe Başkanlığı, 2019). Research has indicated that students' participation in the workforce and their lifelong learning by transferring knowledge can be achieved through a design-oriented approach (Chen, 2013; Girgin, 2020). The goals for 2023 and Turkey's increasing influence in its region have made it imperative for every sector of society and the workforce to become more productive, creative and qualified. Turkey's education policies aim to educate individuals who are capable of both producing and designing. The goal and necessity of progress in the field of design and production are significant in social studies instruction, just as they are in learning areas like science and mathematics. As a natural consequence of this, an education approach in social studies should be established in such a way as to focus on design and production (promoting design and production in all fields). Razzouk and Shute (2012) have stated that helping students think like designers can better prepare them to handle challenging situations and solve complex problems in school, their careers and their overall lives. Kröper, Fay, Lindberg, and Meinel (2011) have noted that design-focused thinking can assist in deep learning processes related to coping with complex problems, problem perception and generating different solutions.

In the social studies curriculum, both in-class and out-of-school learning environments have been developed based on student-centred activities. In this regard, the curriculum encourages educators to create learning environments that are conducive to experiential

learning, interactive, collaborative and even make learning enjoyable (Malkoç and Kaya, 2015). Taking into account the framework outlined by the curriculum, teachers are not limited to in-class activities but can also utilize out-of-class learning environments. These may include various environments where different professions are practiced, such as museums, science centres, local factories, vocational training courses, universities and archaeological sites. The study conducted by Üztemur, Dinç and Acun (2017) focuses on museum education as one of the out-of-school learning environments. In the study, students participating in museum education as an alternative learning environment within the scope of Social Studies have realized that historical sites embody material evidence of aesthetic, cultural, and artistic development. The results of the existing research indicate that approaching out-of-school learning environments in social studies classes with artistic and cultural production and design-focused activities can provide students with a different perspective.

While design-oriented thinking is important for fields such as the business world and engineering, it has gained importance in the field of education over time. Design-oriented thinking is a process that enables the acquisition of skills necessary for the demands of the current century (Retna, 2015). Researchers have stated that design-oriented thinking has a significant impact on interdisciplinary studies in 21st century education and that it contributes to the acquisition of skills such as creative thinking, problem solving and working in collaboration and supports constructivist learning (Goldman and Zielezinski, 2016; Razzouk and Shute, 2012; Scheer, Noweski and Meinel, 2012). Teachers should design lessons that are suitable for these skills in order to equip students with 21st-century skills, and therefore, teachers should be supported in terms of design- oriented thinking skills (Chiu et al., 2021; Henriksen, Gretter and Richardson, 2018). It is important for a multidisciplinary course, such as social studies, not to be limited to traditional classroom and learning environments restricted with four walls. Directing students towards these environments within the scope of social studies is important for them to become acquainted with professions and to enable them to make observations in various fields of production. Thus, it becomes possible to introduce professions and provide guidance within the framework of the social studies course so that design and production orientation of students can be promoted.

In social studies classes, teachers can serve as a source of inspiration for students to foster design and production-oriented thinking, help them gain experience by means of various in-class or out-of-class activities and guide them by introducing professions. Here, beyond product-oriented thinking, there is a need to explain design-oriented thinking. Design-

oriented thinking is often defined as an analytical and creative process that provides individuals with opportunities for experimentation, creation, prototyping, gathering feedback and redesigning (Razzouk and Shute, 2012). Design-oriented thinking is employed by designers to address innovation needs at strategic, tactical and operational levels, with a focus on putting people at the centre of the process (Indigo, 2018). Furthermore, design-oriented thinking is often associated with different and convergent thinking processes as it aims to solve problems with a human-centered approach (Baker and Moukhliss, 2020). The translation of this definition into learning environments is of utmost importance, especially when viewed from a teacher's perspective. Teachers should create situations in their practices that require students to find solutions by presenting problems related to production or innovation. Design-oriented thinking enables students to work collaboratively, think creatively and take risks (Girgin, 2020). Vanada (2014) states that design-oriented thinking will increase students' concept development through intuitive thinking and brainstorming techniques, and will help them develop products through teamwork and risk-taking. In this process, students should formulate strategies, develop tactics for solving problems and take actions in operational sense. In this way, students who are traditionally passive and solely focused on absorbing information in the classroom can transform into innovative, productive and active learners. Over time, these types of practices in the learning environment can yield many benefits for students in terms of experiential learning.

In recent years, successful initiatives have been carried out to establish a teaching approach centred on design and production. For instance, the practices referred to as "enrichment workshops" by Saranlı and Deniz (2018) serve as a successful example. In these workshops, content, process, and product enrichment are carried out, and club activities are conducted, encouraging students to engage in production. Teachers have taken various measures to facilitate the process, such as helping students acquire possible resources related to their chosen workshop topics, developing supplementary materials and resources, establishing communication with potential experts or mentors and ensuring that the workload among students is appropriately distributed. In this way, students are encouraged to use the knowledge and experiences they have gained to create a product. However, as summarized above, workshop activities have been primarily focused on learning areas such as mathematics and science. Another example is the "Dene yap" (Try and Make) workshops (For detailed information: https://deneyap.org). With the training given in these workshops, it is aimed to impart 21st century skills, increase interest and curiosity in learning, create career

awareness and educate science and technology literate individuals. In this context, they provide students with the fundamental knowledge and technical infrastructure necessary for developing technology projects, thereby giving them a vision for future technologies. They also encourage innovative and original project development by fostering domain-specific expertise. It is important to extend this mindset and educational approach beyond the limited fields such as "Production and Design", "Robotics and Coding", "Electronic Programming", "Internet of Things", "Cybersecurity", "Energy Technologies", "Nanotechnology", "Mobile Applications", "Artificial Intelligence", "Aviation and Space," created in the "Try and Make" workshops to all learning areas. In the light of the ideas and sample practices put forward in this context, the current study can contribute to the field by revealing the current situation of social studies teachers in terms of inspiring their students for a design and production-oriented approach and making them gain experience and professional awareness with various in-class and out-of-class applications. From the perspective of social studies teachers, their approach to the subject is guiding and preparatory for future applications in this field. In this context, the purpose of the current study is to determine the extent to which social studies teachers guide their students toward design and production in both in-class and out-of-school learning environments. To this end, answers to the following questions were sought;

1. To what extent do social studies teachers support their students with design and production-oriented activities in in-class/out-of-school learning environments?
2. Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their age?
3. Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their gender?
4. Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their education level?
5. Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their professional experience?

Method

Model

Since the current study aims to determine the extent to which social studies teachers guide their students toward design and production in in-class/out-of-school learning environments, the survey model, one of the quantitative research methods, was employed. The survey model is used to determine a situation, make evaluations according to standards and uncover potential relationships between events. The survey model is used to identify a situation and describe it as it exists (Karasar, 2013).

Sample and Population

The population of the study consists of social studies teachers working in the provinces of Denizli and Muğla in the 2020-2021 school year. The study conducted within the framework of pandemic management and pandemic rules included 72 social studies teachers participating on a volunteer basis. The demographic characteristics of the social studies teachers who participated in the study are presented in Table 1.

Table 1

Demographic Characteristics of the Participating Social Studies Teachers

		n	%
Age	25 years old and younger	7	9.7
	26-35 years old	29	40.3
	36-45 years old	27	37.5
	46 years old and older	9	12.5
Gender	Female	32	44.4
	Male	40	55.6
Education level	Undergraduate	65	90.3
	Graduate	7	9.7
Professional experience	Less than 1 year	6	8.3
	1-5 years	9	12.5
	6-10 years	24	33.3
	11-15 years	11	15.3
	16-20 years	13	18.1
	21 years and more	9	12.5

As seen in Table 1, 7 (9.7%) of the teachers are 25 years old and younger, 29 (40.3%) are 26-35 years old, 27 (37.5%) are 36-45 years old and 9 (12.5%) are 46 years old and older. Of the participating teachers, 32 (44.4%) are female and 40 (55.6%) are male. When the education level of the participants is examined, it is seen that 65 (%90.3) hold an undergraduate degree while 7 (9.7%) hold a graduate degree. Finally, it is seen that among the social studies teachers participating in the study, 6 (8.3%) have less than 1 year of professional experience, 9 (12.5%) have 1-5 years of professional experience, 24 (33.3%)

have 6-10 years of professional experience, 11 (15.3%) have 11-15 years of professional experience, 13 (18.1%) have 16-20 years of professional experience and 9 (12.5%) have 21 years and more of professional experience.

Data Collection Tools

In the study, the "Examination of Social Studies Teachers' Design and Production-Oriented Teaching Activities in In-Class/Out-of-School Learning Environments" questionnaire, developed by the researchers, was used to reveal to what extent the social studies teachers support their students with design and production-oriented teaching activities. During the development of the questionnaire, the three stages identified by Boateng et al. (2018) were taken into consideration. First, the researchers prepared a pool of items that should be in the conceptual structure of the questionnaire. Then, the questionnaire form was created by obtaining the opinions of four expert faculty members. Lastly, a pilot application was conducted. The final form of the questionnaire was found to have five dimensions "activity dimension", "interest dimension", "engagement dimension", "professional awareness dimension" and "design and production-oriented teaching dimension". The reliability value of the data collection tool has been determined as 0.81. Furthermore, a personal information form was used in the study to determine the demographic characteristics of the social studies teachers, including age, gender, education level and professional experience.

Collection of Data and Analysis

The data collection tool prepared by the researchers was administered to the participating social studies teachers both in face-to-face and online settings. The administration of the questionnaire to the teachers took approximately 10-15 minutes, and prior to the administration, information about the study was given.

The questionnaire developed by the researchers consists of Likert-type questions with five response options: "strongly agree", "agree", "neutral", "disagree" and "strongly disagree". In the analysis of the responses given by the participants to the questionnaire items, descriptive analysis techniques such as arithmetic mean (X_{Mean}) and standard deviation (sd) values were used. The levels of the participants' answers to each question were evaluated based on the arithmetic mean values. When evaluating the mean scores, they were evaluated according to the following ranges; Low: 1.00-2.33, Medium: 2.34-3.67 and High: 3.68-5.00. In addition, frequency (f) and percentage (%) values were calculated in the analysis of the

demographic information. Due to the skewness and kurtosis values of the obtained data falling outside the range of -2 to +2 in the descriptive analysis, non parametric tests were conducted. Non-parametric analysis methods were used to compare the scores the participants received from the questionnaire in the context of the demographic information. The levels of significant differences between the groups were examined in the context of demographic information by using the Chi-Square Test of Independence.

Ethics Committee Approval

This study has been deemed ethically appropriate from a research ethics perspective by the Ethics Committee of Social and Human Sciences Research at Muğla Sıtkı Koçman University, with decision number 278 dated July 06, 2021.

Findings

In this part of the study, the findings obtained from the analysis conducted in accordance with the identified sub-problems are presented. The findings obtained from the analyses conducted to find an answer to the first sub-problem of the study "To what extent do social studies teachers support their students with design and production-oriented activities in in-class/out-of-school learning environments?" are presented below.

Table 2

The Social Studies Teachers' Level of Supporting their Students with Design and Production-Oriented Activities in In-Class/Out-of-School Learning Environments

Dimension	n	ss	$\overline{X}$	Level
Activity	72	.451	3.25	Medium
Interest	72	.651	3.70	High
Engagement	72	.480	3.38	Medium
Professional awareness	72	.672	3.83	High
Design and production-oriented teaching	72	.485	3.54	Medium

When Table 2 is examined, it is seen that the social studies teachers' mean score for design and production-oriented teaching activities is 3.54. It is seen that the design and production-oriented teaching level of the social studies teachers is at the "medium" level. The findings indicate that the social studies teachers' support for the dimensions related to design and production-oriented teaching is "medium" for the activity dimension ($\overline{X}$ = 3.25) and

engagement dimension ($\overline{x}$ = 3.38), while it is "high" for the interest dimension ($\overline{x}$ = 3.70) and professional awareness dimension ($\overline{x}$ = 3.83).

Table 3

Mean Scores Taken from the Items in the Activity Dimension of the Design and Production-Oriented Teaching Activities in In-Class/Out-Of-School Learning Environments

Activity Dimension Items	ss	$\overline{x}$
I teach my lessons in the classroom environment.	.596	4.305
I include workshops in my lessons.	.866	2.402
In my classes, students sit in rows.	.948	3.875
I include group work in my lessons.	.718	2.819
I incorporate out-of-school applications into my lessons.	.649	2.972
In my lessons, we visit historical sites such as museums, archaeological sites and science museums with my students.	.996	2.277
In my lessons, we organize visits to local institutions and organizations such as factories and universities.	1.048	2.333
I give project assignments in my lessons.	.916	3.680
Students produce materials in my lessons.	.729	3.555
Students design something in my lessons.	.884	3.250
In my lessons, I incorporate design and production with a focus on national goals.	.868	3.083
In my lessons, I allow my students to create new things.	.902	3.125
Unusual ideas are generated in my lessons.	.795	3.291
In my lessons, I associate social studies with the subjects of development and production.	.737	3.361
I plan my lessons taking into account the national goals.	.885	3.430
I use words like "let's design and plan" in my lessons.	.742	3.888

When the mean scores in Table 3 are examined, it is seen that the item with the lowest mean ($\overline{x}$ =2.277) is "In my lessons, we visit historical sites such as museums, archaeological sites and science museums with my students." while the item with the highest mean ($\overline{x}$ =4.305) is "I teach my lessons in the classroom environment."

Table 4

Mean Scores Taken from the Items in the Interest Dimension of the Design and Production-Oriented Teaching Activities in In-Class/Out-Of-School Learning Environments

Interest Dimension Items	ss	$\overline{x}$
My students can use the knowledge they acquire in classroom activities in their daily lives.	.902	3.125
My students can explore their areas of interest through in-class production and design activities.	.859	3.722
The knowledge acquired through design is related to daily life.	.817	3.583
My students can use the knowledge they gain from out-of-school activities in their daily lives.	.834	3.750
My students can explore their areas of interest through out-of-school activities focusing on production and design.	.852	3.569
Workshop activities increase students' interest in learning.	.903	4.000

Design and production activities enable students to explore nature with a holistic approach.	.833	4.152

When the mean scores of the items in Table 4 are examined, it is seen that the item with the lowest mean ($\overline{x}$=3.125) is "My students can use the knowledge they acquire in classroom activities in their daily lives." while the item with the highest mean ($\overline{x}$=4.152) is "Design and production activities enable students to explore nature with a holistic approach."

Table 5

Mean Scores Taken from the Items in the Engagement Dimension of the Design and Production-Oriented Teaching Activities in In-Class/Out-Of-School Learning Environments

Engagement Dimension Items	ss	$\overline{x}$
Design activities make my lessons more enjoyable.	.756	3.930
I can design or produce with the materials I have/in my workshop.	.862	4.041
In production, students look for solutions to their problems in daily life.	.989	2.916
Students' creating something makes lessons more enjoyable.	.704	3.694
Sharing designs and products contributes to the identification of new problem situations.	.754	3.777
In design and production activities, students become aware of their mistakes.	.750	4.027
I don't believe that design and production activities can enhance 21st century learning skills for the future.	.804	3.833
I feel uncomfortable implementing design and production-oriented activities.	.715	3.902
Sharing designs and products is important.	.762	3.847
I can teach the lesson more easily with design activities.	1.117	2.861
I can teach subjects and concepts more easily through production in the lesson.	.750	4.027
I see myself as a workshop teacher.	1.002	3.402
Workshop activities encourage students to work in teams.	.929	3.694
I include out-of-school learning activities in the lesson.	.712	4.333
I know what to do in my classroom for design education.	.812	4.041
I am not interested in implementing activities that result in a product.	1.475	2.180
In my lessons, my students can improve their design skills.	1.318	1.916
I encourage my students to transfer what they know to a product or design.	1.106	1.763
My lessons develop students' creativity.	1.033	1.555
My students can make designs with the materials I have/in my workshop.	.988	3.597
I don't think design activities will benefit students.	.857	3.708

As seen in Tablo 5, the item with the lowest mean score ($\overline{x}$=1.555) is "My lessons develop students' creativity." while the item with the highest mean score ($\overline{x}$=4.333) is "I include out-of-school learning activities in the lesson."

Table 6

Mean Scores Taken from the Items in the Professional Awareness Dimension of the Design and Production-Oriented Teaching Activities in In-Class/Out-Of-School Learning

Professional Awareness Dimension Items	ss	$\overline{x}$
My classroom activities can contribute to students' career choices.	.774	4.138
In my lessons, I direct students to production and design-oriented professions.	.756	4.138
I plan out-of-school activities in a way that will contribute to my students' career choices.	.899	3.916
Students can acquire skills for different professions through in-class activities.	.821	3.791
My students get to know different professions through my out-of-school activities.	.887	3.527
I am aware of the industry and job opportunities around me.	.963	3.472
I am aware of the workforce potential around my school.	.798	3.847

As seen in Table 6, the item with the lowest mean score ($\overline{x}$=3,472) is "I am aware of the industry and job opportunities around me." while the item with the highest mean scores ($\overline{x}$=4,138) are "My classroom activities can contribute to students' career choices." and "In my lessons, I direct students to production and design-oriented professions."

The findings obtained from the analyses conducted to find an answer to the second sub-problem of the study "Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their age?" are presented in Table 7.

Table 7

Results of the Analysis Conducted to Determine Whether the Extent to Which the Social Studies Support their Students with Design and Production-Oriented Activities Varies Significantly Depending on Age

	Low	Medium	High	Pearson Chi-square	p
25 years old and younger	0	3 (42.9%)	4 (57.1%)		
26-35 years old	0	21 (72.4%)	8 (27.6%)		
36-45 years old	1 (3.7%)	16 (59.3%)	10 (37.0%)	7.195	.303
46-55 years old	0	3 (33.3%)	6 (66.7%)		
Total	1 (1.4%)	43 (59.7%)	28 (38.9%)		

As seen in Table 7, out of the social studies teachers who participated in the study, one conducts design and production-oriented teaching at a low level, 43 at a medium level and 28 at a high level. When the analysis results regarding whether the level of design and production-oriented teaching of the participating social studies teachers varies depending on the age variable was examined, it was observed that there is no significant difference (x2=7.195; p>.05). It was revealed that the teacher whose support is at a low level is in the age range of 36-45 (F=1). It can be seen that the social studies teachers whose support is at a

medium level are mostly in the age range of 26-35 (F=21), while the smallest number of them is in the age range of 25 and younger and in the age range of 46-55 (F=3). When the ages of the teachers in the high-level category are examined, it is seen that the majority are in the age range of 36-45 (F=10) while the smallest number of them is in the age range of 25 and younger (F=4).

The findings obtained from the analyses conducted to find an answer to the third sub-problem of the study "Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their gender?" are presented in Table 8.

Table 8

Results of the Analysis Conducted to Determine Whether the Extent to Which the Social Studies Support their Students with Design and Production-Oriented Activities Varies Significantly Depending on Gender

	Low	Medium	High	Pearson Chi-Square	p
Female	0	17 (%53.1)	15 (%46.9)		
Male	1 (%2.5)	26 (%65.0)	13 (%32.5)	2.164	.339
Total	1 (%1.4)	43 (%59.7)	28 (%38.9)		

As seen in Table 8, the extent to which the social studies teachers support their students with design and production-oriented activities does not vary significantly depending on gender ($x2=2.164$; $p>.05$). The teacher whose level of support is at a low level is a male (F=1). It is seen that 26 of the social studies teachers who are at a medium level are male while 17 of them are female. On the other hand, while 15 of the teachers who are at a high level are female, 13 of them are male.

The findings obtained from the analyses conducted to find an answer to the fourth sub-problem of the study "Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their education level?" are presented in Table 9.

Table 9

Results of the Analysis Conducted to Determine Whether the Extent to Which the Social Studies Support their Students with Design and Production-Oriented Activities Varies Significantly Depending on Education Level

	Low	Medium	High	Pearson Chi-Square	p
Undergraduate	1 (1.5%)	40 (61.5%)	24 (36.9%)		
Graduate	0	3 (42.9%)	4 (57.1%)	1.141	.565
Total	1 (1.4%)	43 (59.7%)	28 (38.9%)		

As seen in Table 9, the extent to which the social studies teachers support their students with design and production-oriented activities does not vary significantly depending on education level (x2=1.141; p>.05). The education level of the teacher who is at a low level holds an undergraduate degree (F=1). On the other hand, while the great majority of the teachers who are at a medium level hold an undergraduate degree (F=40), very few of them hold a graduate degree (F=3). While the great majority of the teachers who are at a high level hold an undergraduate degree (F=24), few of them hold a graduate degree (F=4).

The findings obtained from the analyses conducted to find an answer to the fifth sub-problem of the study "Does the extent to which social studies teachers support their students with design and production-oriented activities vary significantly depending on their professional experience?" are presented in Table 10.

Table 10

Results of the Analysis Conducted to Determine Whether the Extent to Which the Social Studies Support their Students with Design and Production-Oriented Activities Varies Significantly Depending on Professional Experience

	Low	Medium	High	Pearson Chi-Square	p
Less than 1 year	0	4 (66.7%)	2 (33.3%)		
1-5 years	0	4 (44.4%)	5 (55.6%)		
6-10 years	0	16 (66.7%)	8 (33.3%)		
11-15 years	0	8 (72.7%)	3 (27.3%)	7.195	.303
16-20 years	1 (%7.7)	7 (53.8%)	5 (38.5%)		
21 years and more	0	4 (44.4%)	5 (55.6%)		
Total	1 (1.4%)	43 (59.7%)	28 (38.9%)		

As seen in Table 10, the extent to which the social studies teachers support their students with design and production-oriented activities does not vary significantly depending

on professional experience (x2=7.195; p>.05). The teacher whose level of support is low has 16-20 years of professional experience (F=1). While 16 of the teachers who are at the medium level have 6-10 years of professional experience, 4 of them have less than 1 year of professional experience and 4 of them have 21 and more years of professional experience. While the great majority of the teachers who are at the high level have 6-10 years of professional experience (F=8), very few of them have less than 1 year of professional experience (F=2).

Discussion and Results

The purpose of the current study is to determine the extent to which social studies teachers support their students with design and production-oriented teaching activities in in-class/out-of-school learning environments. The results of the study showed that the teachers provide high levels of support to their students in the dimensions of interest and professional awareness. However, their support was determined to be medium in the dimensions of activity, engagement and design and production-oriented teaching in general. The means obtained in the item-based examinations are also supportive of these levels. As seen in the following items; *"In my lessons, we organize visits to local institutions and organizations such as factories and universities* (X_{mean}=2.33)", *"I include group work in my lessons* (X_{mean}=2.81)", the mean values calculated for the items including statements related to directing students to design processes are low. However, it is seen that items indicating a teacher-centred classroom environment, such as "*I conduct my lessons in the classroom environment* (X_{mean}=4.30)" or "*My students sit in rows in my lessons* (X_{mean}=3.87)" have higher means. Similarly, it was found that items in the interest dimension, such as "*Workshop activities increase students' interest in learning* (X_{mean}=4.00)" or "*Design and production activities enable students to explore nature with a holistic approach* (X_{mean}=4.15)" have high arithmetic mean values. However, it was observed that the teachers' mean scores obtained from the items "*I include workshop activities in my lessons*" and "*I include group work in my lessons*" are low. This shows that students cannot be provided with environments that will increase their interest in design and production-oriented learning and are suitable for them to engage in exploratory learning. Item-based examinations shed light on the first problem of the study regarding teachers' approaches to design and production-oriented activities in their classrooms. The findings showed that the teachers primarily support their students to raise

their professional awareness and interest in design and production-oriented activities. However, their mean scores from the dimensions of activity and engagement were found to be relatively lower. These findings suggest that teacher guidance and support for design and production-oriented learning have not yet reached the necessary level in the classroom and activities. The shift from teachers being curriculum and tool technicians to becoming designers of learning experiences has also been suggested by Persico, Pozzi and Goodyear (2018). This is because it is important to view teaching not only as a practice that involves design tasks but also as an element that supports both the products of teaching and learning and the process of generating professional knowledge (Warr and Mishra, 2021).

In the current study, the extent to which social studies teachers support their students with design and production-oriented teaching activities in in-class/out-of-school learning environments was examined in relation to the variables of age, gender, education level and professional experience. The extent to which social studies teachers support their students with design and production-oriented teaching activities in in-class/out-of-school learning environments was found to not vary depending on the variables of age, gender, education level and professional experience.

In the 7th article of the "Points to be considered in the implementation of the social studies curriculum" section of the 2018 Social Studies curriculum, it is stated that "*In teaching Social Studies, importance should be given to benefiting from out-of-school environments. These studies may be directed to the immediate surroundings of the school (such as the school garden) to the marketplace, official offices, factories, exhibitions, archaeological excavation sites, workshops, museums and historical places (historical buildings, monuments, museum-cities, battlefields, virtual museum tours, etc.). Also, oral history and local history studies should be conducted on appropriate subjects*." (Milli Eğitim Bakanlığı [MEB], 2018). The arithmetic mean scores obtained for the items "*We visit historical sites such as museums, archaeological sites and science museums with my students in my lessons*" and "*We organize visits to local institutions and organizations (factories, universities, etc.) in my lessons*" in the activity dimension were found to be low. This indicates that social studies teachers make limited use of out-of-school learning environments in the context of design and production-oriented teaching activities.

In their study, Malkoç and Kaya (2015) stated that the reasons for not being able to sufficiently benefit from out-of-school learning environments could be attributed to factors such as the inadequacy of the school's physical infrastructure, a dense curriculum, time

constraints and the number of students. In this context, it can be emphasized that social studies teachers should be attentive to utilizing the out-of-school learning environments mentioned in the curriculum. Moreover, in the 2018 Social Studies curriculum, the Ministry of National Education emphasizes that "*the curriculum as a whole should be designed to direct students towards the use of higher-order cognitive skills, promote meaningful and lasting learning, be built upon a solid foundation of previous learning and be integrated with other disciplines and everyday life within the context of values, skills and competencies*." (MEB, 2018). However, in the current study, it was seen that the social studies teachers have low mean values in terms of their interest in design and production-oriented teaching in both in-class and out-of-school learning environments, even though the items "*My students can explore their areas of interest through out-of-school activities focusing on production and design*." and "*My students can use the knowledge they acquire in in-class activities in their daily lives*" have medium arithmetic mean values. In addition, the items with low mean scores in the dimension of social studies teachers' engagement in the design and production-oriented teaching activities in in-class/out-of-school learning environments are "*My students can improve their design skills in my lessons*.", "*I encourage my students to transfer what they know to a product or design*." and "*My lessons develop students' creativity*."

Design and production-oriented thinking develops students' problem solving, creative thinking, critical thinking and innovative thinking skills (Girgin, 2020; Carroll et al., 2010). It will be easier for social studies teachers to achieve the goals stated in the social studies curriculum if they follow an educational-instructional process that is associated with daily life, fosters the use of high-level skills and includes out-of-school learning environments. Furthermore, in the 2005 Social Studies curriculum, it is emphasized that students should have skills that enable them to harmonize with the real world outside the school. It is stated that the development of creativity skills can be achieved not only through in-class activities but also by supporting students in the school environment and during their time outside the school (MEB, 2005).

The results of the study showed that the teachers provide high levels of support to their students in the dimensions of interest and professional awareness. However, their support was determined to be medium in the dimensions of activity, engagement and design and production-oriented teaching in general. The extent to which social studies teachers support their students with design and production-oriented teaching activities in in-class/out-of-school

learning environments was found to not vary depending on the variables of age, gender, education level and professional experience.

Recommendations

The current study was conducted in two provinces in the south of the Aegean region of Turkey, involving voluntarily participating social studies teachers and limited to the items included in the questionnaire. In light of the results of the study, the following recommendations were made:

- Teacher opinions can be determined by using questionnaires by school administrators and teacher groups in order to guide the activities that can be carried out during the year.
- The items in the dimensions of professional awareness, interest, activity and engagement, which were created within the scope of the current study and are related to design and production-oriented learning, can be used in different sample groups and sizes.
- The questionnaire items can be rearranged and adapted in the light of theories put forward on social science teaching and design and production-oriented thinking and can be used in measurement tools with different structures.
- Finally, examinations based on the items and dimensions in the questionnaire indicate that teachers structure design and production-oriented learning more through professional awareness and interest. In this connection, in-service training can be provided to social studies teachers to guide and support them within the framework of activities and student activities.
- Studies can be organized together with teachers, students, parents and school administrators to determine the design and production-oriented learning needs of students.
- Various and numerous design workshops can be opened to support students' design and production activities and to offer design and production-oriented teaching environments to teachers.
- More emphasis should be placed on skills that support design and production-oriented teaching in the Social Studies curriculum.

Ethics Committee Approval

This study has been deemed ethically appropriate from a research ethics perspective by the Ethics Committee of Social and Human Sciences Research at Muğla Sıtkı Koçman University, with decision number 278 dated July 06, 2021.

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