Environmental Orientation for Art Teachers Education Program (EOATEP)

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The study aimed to identify the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University from the point of view of student teachers participating in the program. To accomplish the objectives of the research, an analytical descriptive method was used, and a questionnaire prepared for this purpose was distributed to a sample of (106) male and female students, representing 50.2% of the total population of the study. The results showed that the student teachers' estimates of the level of environmental orientation of the program as a whole were (moderate), with an arithmetic mean (2.9/4.00). Concerning the dimension of teachers' practices of environmental orientation during teaching, it was (high). In contrast, the level of environmental orientation for the course content was (moderate) with a mean of (2.73/4.00). The results also showed that there were no statistically significant differences in the estimates of student teachers for the level of environmental orientation on any of the two dimensions due to the variables (gender, cumulative degree).

Keywords: environmental orientation, teacher preparation programs, art education

INTRODUCTION

The waste, dwindling resources, and environmental degradation are some of the most significant concerns facing modern human civilization. Therefore, since the 1950s of the previous century, interest in the environment has increased, mainly as environmental concerns started to emerge, which some considered as a collective suicide attempt for all of humanity (Jianping et al., 2014). Although there are various methods to protect the environment, the educational system continues to command the world's attention as the best defense against improper human behavior. In particular, if it is acknowledged that human behavior toward the environment is the root cause of the global environmental crisis, that education is responsible for regulating and altering this behavior. That education is centered on equipping people with the knowledge, values, and attitudes necessary to deal with the environment in a reasoned and reasoned manner.

Art is regarded as a fundamental aspect of human culture, especially since it stands out in its capacity to allow people to express their contents creatively that conventional means of expression may not permit. The magnitude of the impact it creates in the depths of the soul goes beyond the usual methods of addressing and shaping any person's or social entity's visions and ideas (Arthurs & DiNiscia, 2022). As a result, it offers a unique chance and an ideal setting for promoting environmental consciousness. Some may believe that environmental education is related to specific subjects, such as science and geography; however, this

is not the case. As long as all humans continue to inhabit this world and rely on its resources for survival, they must fulfill their environmental obligations.

Consequently, it is the shared duty of all educators across all academic fields, including art education. When combined with other topics, art education helps develop a person's personality and prepares them for a well-rounded self. Its emphasis on the psychological and emotional elements that serve as the primary drivers of diverse behavior make art education's importance clear.

In light of the aforementioned, teacher preparation programs in various disciplines must address the needs of teacher preparation in a manner that allows him to be obligations to take part in the preparation of modern environmental humans. To verify the extent to which the program for preparing art education teachers at Sultan Qaboos University responds to environmental education requirements. This study aimed to identify the level of environmental orientation for the program for the preparation of teachers of art education at Sultan Qaboos University in each of the practices of teachers during teaching and the extent to which it is included in the content of the curricula from the point of view of student teachers enrolled in the program.

PROBLEM STATEMENT

Preparing environmentally cultured teachers is a necessary, essential, and desirable matter for governments, educational bodies, and scientific centers. The environment in our time raises a lot of interest and discussion, which leads us to identify the environmental orientation level in teachers' preparation programs. Preparing environmentally cultured teachers is an important, essential, and desirable matter for governments, educational bodies, and scientific centers. The environment in our time raises a lot of interest and discussion, which leads us to identify the environmental orientation level in teachers' preparation programs. Particularly art teachers, who have a stronger connection to environmental concerns than other teachers from other disciplines and they may expose and express the students' inner thoughts in a non-traditional approach to address social challenges. Despite this, UNESCO investigations found that the Arab nations suffer from a severe lack of competent human resources to conduct environmental education activities. These reports assessed their requirement for trained professionals in the environmental area at around 81%. This was the cause of the delay in incorporating environmental education programs into the curriculum. As part of large-scale changes to the education system, environmental education has been added to all textbooks at all levels and for all subjects, based on international experiences and educational competencies. Therefore, assessing the degree of teacher preparation programs with an environmental orientation has become important.

RESEARCH QUESTIONS

Based on the problem statement, the following research questions were formulated:

1. What are the student teachers' estimates of the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University based on the teachers' practices and the course content?
2. Do student teachers' estimates of the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University based on teachers' practices and course content differ according to gender, cumulative degree, and academic year?

RESEARCH OBJECTIVES

Based on the research questions, the research sought to achieve the following objectives:

1. Identifying the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University following the inclusion of environmental education requirements in each of: "Teachers' Practices" and "Course Content".

2. Revealing differences in student teachers' estimates of the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University, according to the inclusion of environmental education requirements in each of the "teachers' practices" and "course content" attributed to the variables of gender, cumulative degree, and academic year.

THE IMPORTANCE OF RESEARCH

This research stems from the importance of environmental orientation for teacher preparation programs. Therefore, it is hoped that this research will contribute to the following:

1. Directing those in charge of developing programs for preparing art education teachers and university professors towards more attention to environmental orientation in line with local and international orientation in responding to the need for everyone to contribute to finding solutions to environmental issues.
2. Providing feedback to those in charge of the Art Education Teacher Preparation Program on the level of environmental orientation for this program based on students' estimates in order to use it in developing their teaching practices.
3. Directing the interest, of course, teachers in teacher preparation programs towards more attention to the environmental orientation of the courses they teach.

Operational Definitions

Environmental orientation: a method of instruction that aims to instill in students the knowledge, skills, inclinations, attitudes, and proper environmental values necessary to deal responsibly with their environment and its constituent parts, preserve it, and develop it. It also assists teachers in shaping their students' behavior and provides them with a solid environmental education.

Art Education Teacher Preparation Program: It is one of the undergraduate programs offered in the Department of Art Education. It aims to prepare qualified teachers to teach fine arts in the basic and post-basic education stages. In this program, the student-teacher studies courses in drawing, painting, ceramics, printing, weaving, the basics of design, sculpture, and molding with different materials, graphic design, goldsmithing, metals, and artistic crafts. In addition to educational courses in curricula, teaching methods, educational psychology, fundamentals of education, and educational technology, and field training in schools.

Research Limits

- Objectivity limits: The research was limited to evaluating the program for preparing art education teachers according to the estimates of student teachers.
- Spatial limits: Sultan Qaboos University in the Sultanate of Oman.
- Human limits: Students involved in the Art Education Teacher Preparation Program.
- Temporal limits: This study was applied during the first semester of 2019.

LITERATURE REVIEW

Environmental education is defined as an educational program that aims to clarify the human relationship and interaction with the natural environment and its resources to achieve students' acquisition of various of educational experiences (Lima & Pato, 2021). It is also defined as forming the values, attitudes, and perceptions necessary for the learner to understand and appreciate the complex relationships that link man and his civilization with his biosphere (Cruz, Pulido & García, 2021). As for the definition adopted by the Belgrade Symposium in 1975, it is a type of education that aims to form a generation aware and interested in the environment and its associated problems (Rushton, 2021). The Arab Organization for Education, Culture, and Science defined it as the process of forming values and attitudes necessary to understand and appreciate the relationships formed by man and to work to preserve the various sources of

the environment with the necessity of making good use of them to maintain a decent life and raise living standards (Al Ajlouni, 2021).

In the official academic sense, environmental education is a relatively new idea (Türkoğlu, 2019). However, its intellectual roots date back to when man first began to consider his relationship with his environment and how this affected his ability to judge whether he was preserving or destroying it (Santos-Pastor et al., 2022). To put it another way, it wasn't until there were several regional and worldwide conferences and seminars on environmental concerns and difficulties that environmental education became obvious (Shaaban & Imane, 2018). Environmental education as a new concept resulted from the interaction between the meaning of education and the environment. Therefore, the meanings of this concept varied according to the diversity of the fields and objectives of the educational process and the meanings of the environment (Gautam, 2018).

Environmental education is an organized educational effort in the field of education that aims to increase students' awareness of environmental issues, prepare them to take part in solving them and give them the knowledge, skills, and morals they need to understand and appreciate the relationships between man and his environment (Petkou, Andrea & Anthrakopoulou, 2021). This will help prepare the next generation to be aware of its environment and make the right decisions to protect it and prevent environmental harm. Therefore, it was necessary to link environmental education with sustainable development to prepare the individual for successful interaction with his natural environment by clarifying the concepts that link the reciprocal relationships between man, his culture, and his biophysical surroundings (Marques & Xavier, 2020). This preparedness also necessitates the development of abilities that allow the person to participate in resolving environmental issues and threats to the environment. Consequently, environmental education in schools aims to accomplish the following objectives (Corpuz, San Andres & Lagasca, 2022):

- Awareness: By assisting pupils in developing a broad understanding of the environment and its challenges.
- Knowledge: Provide learners with various experiences about the environment and its problems, and achieve a basic understanding of it.
- Attitudes: Motivating students to actively engage in conserving and promoting the environment by instilling good environmental ideals and sentiments in them. This indicates that the student develops an environmental consciousness that enables him to justify the exploitation of his environment in proportion to his attempts to conserve it.
- Participation: Providing learners with the capabilities that allow them to contribute effectively at all levels to solving environmental problems.

Therefore, it was essential to focus on teachers by educating them about the environment, increasing their awareness of environmental issues and coping mechanisms, and fostering their development of a good attitude toward the environment (El Batri et al., 2022). Environmental orientation, like other components of the emotional side in environmental education, are considered keys to the future of the human race and determining the quality of life (Keles, 2017). Environmental education is primariaimed at instilling the necessary environmental attitudes in people, necessitating a concentration on this form of education (Afacan, 2020). In other words, the focus should be on behavior, not on knowledge. Educators must also devote more outstanding care and attention to components that assist students in acquiring the attitudes, values, and abilities necessary for active participation in resolving environmental challenges (Husin, Maharani, Yosef & Sumarni, 2020). Some educators also believe that a radical solution to the current environmental crisis requires a significant change in human attitudes toward the environment. Some even believe that the environmental revolution we need is a revolution in attitudes (Tran Ho, Lepage, & Fang, 2022).

Environmental education helps develop the capacity to acquire and communicate knowledge about the environment in all of its dimensions and ecological, physical, and human relationships Atuguba, 2019). In addition, it attempts to generate positive environmental protection and improvement orientation within the boundaries of our material, intellectual, and ethical capacities Anggraini & Karyanto, 2018). In the sense

that the primary objective of environmental education is to cultivate environmental consciousness and instill in individuals a feeling of responsibility for the critical environment in which they live (Anih, Rachman, Rohmawatiningsih & Yayoi, 2021). Humans are the product of their ongoing contact with their surroundings since he shares with all things the fundamental building unit as a consequence of the material and immaterial environmental circumstances surrounding them. Initially, the human influence on the environment was minimal and had little effect on other living organisms (Ozturk, 2018). A person's connection with the environment and his interactions with these other living species have developed according to the diverse periods in the history of the evolution of human societies: the hunting and gathering society, the agricultural society, and lastly the industrial society (Hidayatullah & Kheryadi, 2020). Humans and the environment have a tight connection; the biggest common denominator that reflects this close relationship is humans, and the aims of humans and environmental concerns are defined in light of these interactions and linkages (Álvarez-García, García-Escudero, Salvà-Mut & Calvo-Sastre, 2019). There are three facets to the human-environment relationship (Galtseva et al., 2020) :

- The environment is a spatial space for human life and activity.
- The environment is the source of ingredients from which human creates prosperity.
- The environment is the receptacle for human outputs and wastes, and environmental health and safety need a balance between these factors.

The preceding discussion demonstrates that the human connection with the environment has progressed through various phases involving the interplay of three fundamental elements: human, knowledge, and the environment. It is important to note that the changes humans cause in the environment can only be understood in the context of his relationship with his environment, particularly those behaviors that end up posing risks to human health (García-Rico, Martínez-Muñoz, Santos-Pastor & Chiva-Bartoll, 2021). However, it remains true that the human organism is the only one capable of controlling its behavior and minimizing its harmful effects. From this perspective, the significance of environmental culture for the individual becomes apparent (Georgiou, Hadjichambis & Hadjichambi, 2021). Environmental culture aims to cultivate environmental consciousness and create basic environmental knowledge to crystallize positive and permanent environmental behavior, which is a prerequisite for environmental protection and thus contributes to the preservation of public health (Sakkoulis, Asimaki & Vergidis, 2018).

The attempt to achieve the goals of environmental education needs to follow a set of educational methods, including (Zachariou, Tsami, Chalkias & Bersimis, 2017):

- Self-education method: This method is summed up in students handling various environmental concerns to motivate them to create posters of environmental images and write essays on environmental issues.
- Problem-solving method: It is a method of teaching about environmental issues and finding answers with an emphasis on the learner's environmental consciousness, as well as to fit their skills and pique their interests, which may promote the suggestion of different solutions.
- The method of creating environmental educational situations in the school: This is accomplished via various inside-the-school activities, such as student planting of plants and flowers.
- Use of illustration boards method: This method uses graphs, maps, or drawings to get students' attention and get them thinking about a particular topic or potential issue. The teacher may also use basic words to get students' attention and settle them as a beginning point for a conversation about these terms.
- Direct experience method: The most critical strategies represent the teaching of environmental education because the learners' direct interaction with the environment provides the basis for teaching the different environmental concepts.
- Method of participation in environmental activities: It entails providing students with the chance to engage in environmental activities, offer appropriate solutions and proposals, and do so through scientific processes and practical programs to maintain a balance between the needs of human life, including voluntary participation to preserve the environment and its safety.

- Role-playing strategy: Environmental concerns are addressed using this role-playing technique and debates. Educational research has shown that social learning may occur via simulation, role-playing, and a direct experience.

The teacher is the most important active component in ensuring that environmental education achieves its objectives since they inspire the students' dynamism and organization. The teacher's success and the research's value increase with the number of good student interactions with the topics of study (Abun, 2017). Each teacher has their unique methods and teaching styles, while the pupils' mental capacities vary. This teacher should also possess the eligibility, competence, and knowledge necessary for teaching environmental education. He should also be able to choose the best teaching strategies and diversify them for environmental education programs, which are expected to help students achieve the existing environmental objectives (Lima & Pato, 2021). Thus, the teacher's achievement of the objectives of environmental education depends on the following aspects (Rushton, 2021):

- Education from the environment: This aspect relates to students' knowledge and understanding of the environment how people influence their environment, as well as how to deal with it.
- Education in the Environment: This aspect focuses on developing environmental understanding among learners by employing the environment as a learning laboratory.
- Education for the Environment: This aspect strives to develop the learner's interest in preserving the environment and avoiding causing any imbalance that affects it.

A successful teacher is, first and foremost, a person who can have a clear impact on the lives of children. It is only natural that he exhibits the traits and qualities necessary to play his part in directing students' absolute paths as they learn about their intellectual, physical, and moral capacities (Al Ajlouni, 2021). However, this can only be done with deliberate practice in the classroom. Getting him ready for the classroom by exposing him to conferences, seminars, and panel discussions with professionals and experts will ensure that he is up to date on the most recent advancements in the teaching profession. His culture must go deeper than the facts and information he imparts to students, given the growth of educational ideas and the appearance of new pedagogy, psychology, and sociology research (Türkoğlu, 2019). Whereas one of the requirements for being able to teach is to know more than you do, this is done to ensure that the teacher has a whole personality in terms of science, morals, and conduct.

The teacher needed to be knowledgeable about environmental issues and problems as well as the most recent advancements in education, psychology, and social sciences. These fields also need to keep up with environmental issues and propose pedagogical approaches and strategies that are appropriate for the needs of its protection (Santos-Pastor et al., 2022). This was especially important in light of the new global orientation and developments, especially at the environmental level. The teacher can play a crucial role in ensuring that young people receive environmental education by working to prepare them to interact with their environment responsibly and make the right decisions to protect it and deal with the issues it faces, such as fighting forms of pollution and limiting harmful practices like wasting natural resources (Shaaban & Imane, 2018). The most important roles that the teacher can play in the field of environmental education can be summarized in the following points (Gautam, 2018):

- Attracting students' attention to the environment and its issues by addressing topics of interest to them, appropriate to their age, and drawn from their local environment.
- Discussing environmental plans and problems with students and fellow teachers.
- Students should be involved in the planning, summarizing, and arranging of work-related activities wherever feasible.
- Organize the students into working groups, taking into account the abilities and interests of each one.
- Organizing and arranging field outings to the local environment.
- Providing tools and preparing appropriate equipment for field outings.
- Directing, following up, and discussing groups of students in their field outings.
- Encourage groups of pupils to present their work to each other.

The teacher's readiness and suitable preparation play a significant part in his or her ability to perform these duties successfully. Whereas preparation necessitates that the teacher has a desire and interest in everything linked to environmental concerns and has a set of good qualities and behaviors towards the environment and its diverse parts to be a legitimate model for students (El Batri et al., 2022). When it comes to preparation, it is necessary to balance knowledge, information, and abilities. It must also be acquainted with the approaches, techniques, and tactics used to teach environmental education (Afacan et al., 2020).

Previous Studies

Castro et al. (2021) suggested a program of workshops for the study of environmental education to prepare teachers who received their Bachelor of Primary Education degrees from the schools "Francisco Gómez Toro" and "José de la Luz y Caballero" from the municipality of Mantua. From a theoretical perspective, this goal was achieved using the historical-logical method, the system approach, analysis and synthesis, and modeling; from an empirical perspective, it was achieved using a survey, an interview, documentary analysis, scientific observation, and descriptive statistics. Accordingly, it is found that there is a conflict between the requirement for adequate treatment of the fundamental environmental content in the education of schoolchildren and the inadequacy of the preparation the newly graduated primary teachers possess in the context of their professional performance.

Petkou et al. (2021) studied the effects of environmental training on pre-primary and primary school teachers and how it affected the development of their attitudes and views about the environment. Additionally, research was done to see whether training influences the implementation of environmental education programs and any potential metacognitive impacts on teachers. The sampling technique employed was simple random sampling. Face-to-face interviews were used to gather data, and 154 pre-primary and primary school teachers were given a standardized questionnaire to complete. According to the research, educators were interested in environmental concerns and primarily utilized the media to learn more about them. Age and gender had significant roles in how environmental educators performed and behaved. Additionally, it became clear that there are severe shortcomings in pre-primary and primary environmental education organizations as well as teacher capacity development, all of which have a detrimental impact on implementing environmental programs in schools.

Santos-Pastor et al. (2022) evaluated the impacts of a program for undergraduates on sports and physical activity outdoors with a focus on sustainable development. A total of 113 students from the Autonomous University of Madrid (Spain) are pursuing a Bachelor's degree in Physical Activity and Sports Sciences and a Master's degree in Teacher Training for Secondary Education and High School (specializing in Physical Education) were engaged. Analyzed how this training program affected three aspects of environmental education (knowledge, behaviors, and attitudes). Considering the students' sex, age, and educational background allowed us to analyze its impact (sportive and educational). Data were gathered using a combination of quantitative and qualitative methods: for the quantitative approach, the validated Environmental Attitude in Physical Activities in Natural Environments scale was used; for the qualitative approach, individual reflective diaries written by program participants were analyzed. The findings indicate that environmental education's three components have a good impact on pupils in both the training profiles for sports and for academics. The qualitative data indicate that female students were more sensitive to the surroundings throughout their practices, despite the fact that the quantitative findings do not demonstrate any significant differences regarding the gender variable. Significant disparities are seen in the youngest pupils with an educational profile when the age variable is included.

Tran Ho et al. (2022) examined the environmental education (EE) component of the preschool teacher training programs at six universities in Vietnam, allowing researchers to determine the difficulties associated with integrating EE into these curricula. To gather the qualitative information required for this research, 18 students in their last year of undergraduate studies enrolled in these institutions' preschool teacher training programs were interviewed. The results showed a glaring gap between EE and the pre-service teachers' education and their preparation for a preschool teaching-level certification rating with EE skills. Comparing the programs at the various institutions reveals differences in the EE perspectives of the program designers, which correspond to the weight placed on environmental education courses.

METHODOLOGY

The purpose of this study was to determine the level of environmental orientation that the Art Education Teacher Preparation Program at Sultan Qaboos University provides, based on the estimations of the student teachers involved in the program, and then to analyze and interpret the results of the study. To accomplish these objectives, the analytical descriptive method was chosen as the study method.

Research Population and Sample

The study population consisted of all the students enrolled in the teacher preparation program in the major of Art Education at the College of Education, which numbered (211) students in all academic years from the first to the fourth year (except for the preparatory year). The study sample consisted of (106) students who responded to the electronic study scale, including (20) males and (86) females, and this percentage was more than sufficient for representing the population.

Research Instrument

In this study, an assessment scale was used to determine the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan University, according to the responses of student teachers studying in the program. The scale consisted of (16) items divided into two main dimensions, with eight items for each, according to the four-point Likert scale. In the first dimension, student teachers were asked to evaluate the environmental orientation of teachers' practices during teaching according to four levels. Grades were assigned (4, 3, 2, 1) for the estimated weights of the response alternatives, as follows: always (4), sometimes (3), rarely (2), never (1); As for the environmental orientation of the course content, the student teachers were asked to evaluate it within four levels, which were as follows: high (4), medium (3), acceptable (2), and low (1).

Instrument Validity

The study instrument was presented to a group of specialists in science curricula, art education, and the Arabic language to obtain their opinions on the items' suitability for the intended purpose, as well as the clarity and accuracy of the linguistic wording, and the instrument was modified based on their feedback. Also, the construction validity of the scale was verified by calculating the Corrected Item-Total Correlation (CITC) for each item of the scale with the total score of the dimension to which it belongs; Table 1 illustrates this.

TABLE 1
ITEM CORRELATION COEFFICIENTS WITH THE DIMENSION TO WHICH IT BELONGS

The first dimension: the practices of teachers		The second dimension: content of the courses	
No	CITC	No	CITC
1	.704	1	.624
2	.684	2	.672
3	.694	3	.724
4	.502	4	.718
5	.685	5	.620
6	.532	6	.646
7	.606	7	.648
8	.633	8	.627

Table 1 shows that the correlation coefficients between each item of the two dimensions of the scale and the dimension to which it belongs were not less than (0.5). All of them are statistically significant at the significance level (0.01), and these are acceptable values for the validity of the scale items.

Instrument Reliability

To verify the reliability of the internal consistency for each dimension of the scale, Cronbach's alpha coefficient was calculated. Cronbach's alpha coefficients of (0.872) for the first dimension and (0.887) for the second dimension. These results suggest a high value of reliability for each dimension.

Scale Correction Standard

To interpret the means score of the scale and dimensions and their related items. The three classifications with equal intervals of low, medium, and high have been adopted. Where the range (1-4) was divided into three categories are (low) agreement level for the mean scores category (1-1.99), a (medium) agreement level for the mean scores category (2.00 - 3.99), and a (high) agreement level for the mean scores category (3.00-4.00).

RESULTS AND DISCUSSION

First: The results related to the first study question, which states: "What are the student teachers' estimates of the level of environmental orientation for the program for preparing teachers of art education at Sultan Qaboos University, according to each of the practices of teachers, and the content of the courses?". Mean scores and standard deviations were calculated for the student's responses on the scale and its two dimensions and the items belonging to each of them. The dimensions were arranged in descending order according to their mean scores, as shown in Table 2.

TABLE 2
MEAN SCORES AND STANDARD DEVIATIONS FOR THE SAMPLE (N=106)

Rank	Items	M	St.dv	Decision
1	They encourage college students to use environmental materials and transform them into aesthetic aspects	3.54	0.65	High
2	They explain the role and message of art in achieving the requirements of .preserving the environment and preserving its resources	3.17	0.72	High
3	They train college students to employ the teaching of arts in the future in fulfilling the requirements of environmental education among school students	3.13	0.78	High
4	They employ art topics to find interest in environmental issues and issues	3.03	0.76	High
5	They show interest in environmental issues and problems	2.99	0.72	Medium
6	They seek to enhance the interest of college students in the environment and its issues	2.94	0.70	Medium
7	Teachers adopt a clear strategy to include environmental education requirements in their teaching of art education curricula	2.91	0.59	Medium
8	They support distinguished initiatives in the field of employing art teaching in achieving the requirements of environmental education	2.86	0.75	Medium
	Total	**3.07**	**0.71**	**High**

Rank	Items	M	St.dv	Decision
1	The courses reinforce the desire to employ the teaching of art education to .achieve the requirements of environmental education	2.90	0.69	Medium
2	The courses contribute to increasing knowledge of the role of art education in .achieving the requirements of environmental education	2.89	0.71	Medium
3	The courses develop the personal skills necessary to teach art education in .fulfilling the requirements of environmental education	2.82	0.75	Medium
4	The courses include innovative ideas in teaching art education to achieve the .requirements of environmental education	2.75	0.80	Medium

5	The courses provide applied examples of how to use art in addressing environmental problems	2.71	0.70	Medium
6	The courses include theoretical information about the use of art in addressing environmental issues and problems	2.70	0.64	Medium
7	The courses include clear content that adopts the fulfillment of environmental .education requirements	2.67	0.70	Medium
8	The courses refer to the reality of environmental problems in the Sultanate of Oman	2.42	0.80	Medium
	Total	**2.73**	**0.72**	**Medium**
	Total of scale	**2.90**	**0.72**	**Medium**

Table 2 shows that the level of environmental orientation was (medium) at the overall level of the scale, with a mean score (2.9/4.00). Concerning the "practices of teachers" dimension, it was (high) with a mean of (3.07/4.00). As for the level of environmental orientation on the "course content" dimension, it was (medium) with a mean of (2.73/4.00). In addition, Table 2 demonstrates that the level of environmental orientation on the items of the "Teachers' Practice" dimension was divided into two levels of practice: (high) with four items, which are items with ranks (1-4), and (medium) with the remaining four items, which have ranks (5 -8). It is also noted that the level of environmental orientation on all of the items of the "course content" dimension is (medium), and their mean scores ranged (2.42-2.90).

This outcome can be explained by the teachers' encouragement of college students to use environmental materials and transform them into aesthetic aspects, their explanation of the role and message of art in achieving the requirements of preserving the environment and preserving its resources, their training of college students to use art teaching in the future to satisfy the demands of environmental education among school students, and their use of artistic subjects to develop an interest in environmental concerns. In addition, the courses enhance the desire to employ the teaching of art education to achieve the requirements of environmental education, contribute to increasing knowledge of the role of art education in achieving the requirements of environmental education, the courses develop the personal skills necessary for teaching art education in achieving the requirements of environmental education. They include innovative ideas in teaching art education to achieve the requirements of environmental education. This result is consistent with the studies of Petkou et al. (2021) and Santos-Pastor et al. (2022) but inconsistent with the studies of Castro et al. (2021) and Tran Ho et al. (2022).

Secondly: The results related to the second study question, which states: "Do student teachers' estimates of the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University based on teachers' practices and course content differ according to gender, cumulative degree, and academic year according to each of the teachers' practices and the content of the courses?". Mean scores and standard deviations were calculated for the student's responses to the two dimensions of the scale and the items, followed by using the t-test for two independent samples, as shown in Table (3).

TABLE 3
INDEPENDENT SAMPLES T-TEST

Dimension	Gender	No	Mean	St.dv	T	df	P- value
Teachers	Male	20	3.18	0.40	1.00	104	0.32
	Female	86	3.05	0.54			
Courses	Male	20	2.80	0.63	0.63	104	0.53
	Female	86	2.72	0.52			

Table 3 shows that there are no statistically significant differences at the significance level ($\alpha = 0.05$) between the two mean scores of student teachers' estimates of the level of environmental orientation in the

"course content" due to the difference in gender (male, female). The table also shows that there are no statistically significant differences at the significance level (α = 0.05) between the two mean scores of student teachers' estimates of the level of environmental orientation in "teachers' practices" due to the difference in gender (male, female). This result is consistent with the study of Santos-Pastor et al. (2022).

One-way ANOVA was used to evaluate for statistically significant variations in the responses of student teachers on the two dimensions of the scale and the items to each of them, according to the cumulative degree variable (acceptable, good, very good, excellent), as shown in Table 4.

TABLE 4
ANOVA TEST OF CUMULATIVE DEGREE

Dimension	Cumulative Degree	No	Groups	Sum of Squares	df	Mean Square	F	P-value
Teachers	acceptable	15	Between groups	0.51	3	0.17	0.63	0.60
	good	29						
	very good	49	Within groups	27.61	102	0.27		
	excellent	13						
	Total	106		27.61	102			
Courses	acceptable	15	Between groups	0.09	3	0.03	0.10	0.96
	good	29						
	very good	49	Within groups	30.81	102	0.30		
	excellent	13						
	Total	106		30.90	105			

Table 4 shows that there are no statistically significant differences at the significance level (0.05) between the mean scores of the students' estimates of the level of environmental orientation on any of the two dimensions of the scale "practices of teachers" and "content of academic courses," due to the difference in the cumulative average variable (acceptable, good, very good, excellent).

Also, one-way ANOVA was used to evaluate the statistically significant differences in the responses of student teachers on the two dimensions of the scale and the items for each of them, according to the variable of the academic year (first, second, third, fourth), as shown in Table 5.

TABLE 4
ANOVA TEST OF THE ACADEMIC YEAR

Dimension	Academic Year	No	Groups	Sum of Squares	df	Mean Square	F	P-value
Teachers	first	19	Between groups	2.46	3	0.82	3.26	0.025
	second	28						
	third	26	Within groups	25.67	102	0.25		
	fourth	33						
	Total	106		28.13	102			
Courses	first	19	Between groups	2.52	3	0.84	3.01	0.034
	second	28						
	third	26	Within groups	28.36	102	0.28		
	fourth	33						
	Total	106		30.90	105			

Table 5 shows that there are statistically significant differences at the level of significance (0.05) between the mean scores of the student teachers' estimates of the level of environmental orientation on both dimensions of the scale "practices of teachers" and "content of academic courses", due to the variable of the academic year (first, second, third, fourth), to reveal those differences between the mean scores that are statistically significant; The LSD test was used as shown in Table 6.

TABLE 6
LSD TEST RESULTS

Dimension	Academic Year	second	third	fourth
Teachers	first	0.38*	0.39*	0.16
	second		0.01	0.23
	third			0.23
Courses	first	0.33*	0.47*	0.27
	second		0.14	0.06
	third			0.20

Table 6 shows that there are statistical differences at the level of significance (0.05) between the mean scores estimates of first-year students and both the second and third years for the level of environmental orientation and on each of the two dimensions of "practices of teachers" and "content of academic courses", in favor of the first year. This result may explain the students' inaccuracy in their estimates, which may not have been sufficient for them to judge objectively on the program due to their new experience with it.

Respondents' Comments on the Open Question

At the end of the scale, the scale included an open question about the reality of environmental orientation for the Art Education Teachers Preparation Program. One of the most critical comments was the students' desire to direct the program environmentally so that environmental issues are addressed clearly and explicitly. The students said, "We hope to activate this aspect in a clear manner greater in the curriculum". The students indicated that the courses sometimes refer to the environmental problems that the Sultanate of Oman suffers from in a transient manner rather than systematically and that environmental issues are raised transiently and indirectly. One of the student teachers commented that "it never happened that environmental education was mentioned as the goal to be reached". As for resorting to the environment to employ its resources, the motive in it was to employ the environment for art and not to employ art to serve the environment and its issues. One of the student teachers commented by saying, "I think that when we resort to recycling and reusing environmental materials in artworks, the reason is often due to the lack of availability of some ready-made materials that It is more efficient, and I do not think that the justification was based on the idea of preserving and sustaining environmental resources".

CONCLUSION

The study aimed to identify the level of environmental orientation for the Art Education Teacher Preparation Program at Sultan Qaboos University from the point of view of student teachers participating in the program. The results showed that the student teachers' estimates of the level of environmental orientation of the program were (moderate). Therefore, it can be concluded that there is an actual project for environmental education in the programs of preparing art education teachers at Sultan Qaboos University. Still, it is limited to the conceptual level only. Indeed, reality revealed the existence of many shortcomings that resulted in many obstacles and difficulties. Among the most prominent and influential of these was the absence of qualified personnel to implement and activate this project, and this is an inevitable result of the absence of the training and qualification process that teachers need to be able to control the

subjects of this new educational dimension and contribute effectively to the consecration of the desired goals of environmental education among the learners.

Recommendations

The researcher proposes a number of recommendations based on the results of the study:

1. Holding training courses to prepare teachers and qualify them to teach environmental education and enable them to learn about developments in this field in terms of means and methods
2. Involving teachers in seminars, conferences and periodic discussions during the school year to discuss environmental issues in order to exchange experiences with experts and specialists.
3. Preparing periodic leaflets for teachers, through which they stand on the latest information related to curricula and new teaching methods.
4. Providing teachers with educational tools that help in presenting environmental education in interesting and enjoyable ways for students, such as publications, references, models, educational films, and audio-visual devices.

ACKNOWLEDGMENTS

The authors extend their appreciation to the Deanship of Scientific Research at Hashemite University, and the Deanship of Scientific Research at King Khalid University for funding this work through Small Research Groups under grant number (RGP.2 /129/44).

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