Effects of a Special Art Education Course on Attitudes toward Omani Learners with Special Needs

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Abstract

Visual arts are activities that contribute to educating learners with and without special needs. These activities provide an opportunity for learners with special needs (LSN) to freely express their feelings, conflicts, psychological problems, and their artistic creativity. Visual arts are considered as a source of satisfaction, development of the feeling of achievement, and happiness, and a means of activating thinking and learning. In the professional context, art therapy is one of the therapeutic interventions in special education programs. The aim of this research was to explore effects of a Special Art Education (SAE) Course on attitudes toward Omani LSN. Participants of 19 undergraduate students of Art Education Department (AED), Sultan Qaboos University (SQU) were involved in this research. Participants responded to the scale of attitudes towards the LSN before and after studying the SAE course. The scale consisted of 34 items distributed into three domains related to course instructor, course topics, and course teaching methods. The results indicated that these domains contributed to improving participants' attitudes. This improvement was demonstrated by the effects size of the SAE course on participants' attitudes toward Omani LSN.

Keywords: attitudes, learners with special needs (LSN), special art education (SAE), Sultan Qaboos University

1. Introduction

Special education witnesses great developments, and achievements in the enactment of legislation to defend the rights of the LSN. Special education is also intended for developing Individualized Education Programs (IEPs) and remedial instruction of LSN who are needy for instructional programs that are compatible with their abilities, talents and needs that need to improve their life quality (Genc & Ozcan, 2017).

The difference between learners with and without special needs in one or more of development areas contributes to LSN's need for special programs and services. Consequently, they need special education services to achieve an acceptable level of self-efficacy and academic achievement (Bergen, 2013). The availability of these services reflects positively on the success of the vocational and social empowerment programs offered to the LSN in general education institutions (Al–Zoubi & Bani Abdel Rahman, 2017). These services also help to enhance the culture of entrepreneurial education and business incubators for students with special disabilities in higher education institutions (Al-Kiyumi et al., 2020).

Special education includes a set of categories that need to special services, such as intellectual disability, physical and health disability, visual and hearing impairment, autism spectrum disorder, behavioral and emotional disorder, communication disorders, attention deficit hyperactivity disorder, learning disabilities, and talent and giftedness (Hallahan et al, 2014). Support services come along with special education services to meet the individual needs of LSN. Art education (AE) is one of support services that are offered to the LSN in special and general education institutions (Allahverdiyev et al., 2017). The AE includes but not limited to drama, theatre, music, dance, media and visual arts (Power & Klopper, 2011). Wexler (2015) suggests to invite all ways of knowing, as each cannot stand alone without narrowing the richness of human interaction. New spaces will allow the visual arts to further establish linkages, as they have historically allowed us to move between boundaries of self and other, internal and external realities. The visual arts also contain all four ways of knowing.

Art is associated with self-perception, self-confidence and aesthetic appreciation in people's telepathies; because it is a compound style of behaviors that essentially require making decisions on the value and aesthetic of things and accompanying ideas. Human behavioral styles are associated with aesthetic abilities, aesthetic sensitivity, aesthetic judgment and aesthetic preference (Bahrami-Ehsan et al., 2015). Aesthetic sensitivity is a response to aesthetic stimuli that have a harmony of quality in Art (Myszkowski & Zenasni, 2020), while aesthetic preference is a general behavioral and aesthetic tendency of the human psyche that make it attract towards a particular class of artwork and not others (Pugach et al., 2017). Aesthetic judgment is a behavioral response to the nature of aesthetic judgment made by the human to accept or reject the artwork, as well as aesthetic judgment is a mediation between aesthetic sensitivity and aesthetic preference (Juslin, 2013).

Natural and artificial resources surrounding us contributed to shaping a visual memory that helped in the advent of art in different civilizations. A civilization is not devoid of an artistic feature that distinguishes it from other civilizations, even the identity of the human in these civilizations was recognized by the expressive artistic shapes and pictures. Furthermore, art played an important role in establishing the religious doctrine in humans (El Baset & Al-Yahyai, 2018). Art also helps promote the aesthetic feelings and deepen the human awareness by activating the transaction between intuitions and senses (Al-Radaideh & Al-Ameri, 2012), and creating psychological balances that lead to creativity and artistic distinction, as well as art is considered as a rich resource in the integration of human knowledge by contributing to accurate understanding of physical and societal phenomena (Al-Farsi & Al-Ameri, 2017). Accordingly, there must be a cognitive integration between arts and different sciences (Al-Ameri et al., 2011). This cognitive integration has an effective role in ameliorating sentimental, intellectual, physical, perceptual, social, aesthetic, and creative dimensions in human being (Al-Yahyai, 2015). The visual arts include but not limited painting, drawing, sculpture, architecture, photography, filmmaking (Al-Senan & Al Issa, 2018), ceramic and clay (Al-Ameri, 2018), crafts, fashion, interior and graphic design (Stolar, 2018), and digital painting (Shukran & Ragabi, 2018).

Art in its simplest forms is a representation of an idea or application by visual images and multimedia that are harmonic with aesthetic standards and visual arts (Abdulkareem & Majeed, 2019). Consequently, visual arts mainly depend on the language of shape which establishes a cross-cultural language. It is shown that the visual arts effectively contribute- by artboards- to conserving heritage stories and folk legends and overemphasizing cultural heritage (Al-Ajmi, 2016).

In education, teaching the AE course contributes to transferring learners from the role of the recipient of knowledge to the role of builder by connecting art with thinking, as well as teaching the AE course supports social interactions in learners by developing group work morale to beautify environment and society (Acai et al., 2017). Accordingly, the AE is a means of expressing feelings, ideas, making catharsis, and adding happiness to the environment surrounding humans (Chilton et al., 2015). Deasy (2002) focuses on the connection between the arts and academic and social development for students with and without special needs. Walker (2012) believes that it is important for students in art education teacher preparation programs to recognize and challenge neurodevelopmental disabilities such as autism, so art education students can benefit from understanding the neurodiversity paradigm to recognize individuals with disabilities. Larsen (2018) believes that including disability studies in art education teacher preparation curricula in higher education is an important step in confronting ableism and other neurodevelopmental disabilities.

The AE also helped learners to positively occupy the leisure; that is they get acquainted with tools and instruments used to understanding their cognition and feelings which prepare them to participate in individual and group artworks. Therefore, the AE supports motor, cognitive and developmental skills of the LSN (Saldana, 2016). The AE is a means of conscious understanding of things by directing learner to perceive the potential relations in the artistic expression which increases his/her ability to imagination, self-assertiveness, and self-confidence (Bader, 2018). Visual art activities provide sensory inputs combining mental and physical concentration of performing these activities that then contribute to improving learners' mental and physical health (Roswiyani et al., 2019).

The LSN, like other learners, express themselves, emotions and their feelings by visual and plastic arts. This led experts in special education and psychology to thinking of using art forms as a therapeutic method because of the educational, social, physical and psychological benefits for the LSN (Al-Khateeb & Bani Milhem, 2018). Therefore, it can be said that these experts are inspired by the principles of positive psychology which focuses on the positive aspects and strengths more than the negative aspects and weaknesses of the LSN. In other words, art therapy is a nonverbal method that uses some forms of visual art to express feelings, emotions and thoughts without relying on verbal expression (Farokhi, 2011). Throughout the review of case studies, Gazeas (2012) emphasizes how art therapy can help individuals with Autism Spectrum Disorder to move from one stage of drawing development to the next, building art as an alternative form of communication. Hacum et al. (2018) indicated that there are many benefits of virtual reality when it comes to art therapy that more traditional methods may not be able to provide, including

dimensional space, morecolors, and the different programs available for use, such as Google Tilt brush and Oculus quill.

The visual arts cultural practices that go beyond aesthetics to reach social, educational and economic benefits (Cutcher, 2014). Visual arts can also be used as a form of psychotherapy, as it allows the LSN to abreact negative emotional, psychological and behavioral feelings and impulses inside them. In other words, visual arts therapy can be considered one of the therapeutic interventions (Weiskittle & Gramling, 2018; Regev & Yatziv, 2018), which helps to confront the LSN's academic, social and linguistic problems. Visual arts therapy is also an effective method in treating mental and behavioral disorders (Losinski et al., 2016). It has made contributions to the social, emotional and academic adjustment of the LSN (Shechtman & Freilich, 2010). As a result, visual arts education helps integrate LSN into the job market or upon joining institutions of higher education (Taylor, 2005). Therefore, the artistic expression is an important means of making catharsis of the conscious and unconscious conflicts and impulses of the LSN (Sulewski et al., 2012).

The visual arts activities for the LSN are an expressive language whose vocabulary, colors and shapes reflect a visual representation of their own feelings and thoughts. This results in an artistic product that can be used as a diagnostic tool and treatment approach to support the mental health of the LSN. This artistic product can also be interpreted according to psychoanalytic, behavioral, and Gestalt perspectives. It was also found that therapeutic interventions that combine visual art activities with physical exercises have positive effects on the psychological, cognitive and physical fields (Roswiyani et al., 2019). In the international context, contemporary educational perspectives support the education of all learners by regular teachers through integrating arts education into special education programs (Almqvist & Christophersen, 2017). These perspectives require the existence of collaboration and a joint plan of action between general and special educators in special education programs of the LSN (Hourigan, 2014).

In the Omani context, the AE in general education institutions in the Sultanate of Oman includes music, theater, drama and the visual arts. Abdul-Majeed (2013) emphasized the role of visual artistic activities in improving mental and cognitive abilities and their effectiveness in reducing loneliness, stress and psychological repression among Omani learners with special needs. Abdul-Majeed (2013) also stressed the importance of having educators whose specialty in teaching visual art to the LSN. Al-Yahyai (2012) recommended imparting aesthetic values to the visual arts among Omani learners that would strengthen the language of appreciation, criticism and artistic dialogue. The fact this requires thinking about art education teacher preparation programs in Omani higher education institutions. From the mentioned earlier, it is evident that research is needed to explore the effect of studying AE courses on the attitudes of art education students towards the LSN. The investigation of attitudes towards the course and the teaching profession is an essential step for identifying weaknesses or strengths in the SAE course.

At the level of the SQU, the AED launched a Bachelor's program in Art Education in 1991 to preparing teachers to teach art education in general education schools in the Sultanate of Oman (Al-Ameri, 2010). The AE program includes 125 credit hours. 113 credit hours are core and elective courses. The SAE course is one of the specialized elective courses offered in the program, with two credit hours spread over 14 weeks. The SAE course content includes visual arts. While the rest of the forms of art education are included in the rest of the courses of the AED or the departments of the Faculty of Arts at the University. The SAE course includes theoretical information on art education for LSN, teaching methods and strategies, and art therapy techniques. The course also includes field activities aimed at providing the AE teacher with applied skills on how to teach visual arts to the LSN in Omani special education schools, centers and institutions.

The current research comes in response to the results of the evaluation research of the Art Education Program at SQU. This research indicated the need for the program to review and reconsider teaching methods and strategies and evaluation methods in addition to conducting a comprehensive review of its academic courses, including the SAE course (Kazem & Kalash, 2006). Kalash and Kazem (2005) recommended the importance of employing the scientific aspect in teaching the SAE education course and transferring it from an elective course to a core course. AlHamid (2010) also stressed the need to reconsider the Bachelor of Art Education program that does not conform to international standards in the art education teacher preparation process. In other words, studying the SAE course by students of AED in SQU could contribute to having the LSN acquire visual artistic activities and positively reflect on their integration in the educational, social and employment sectors. On the Omani level, there is no empirical research conducted to reveal the effect of the SAE course study in modifying the attitudes of art education students towards teaching the LSN. Hence, the present research aims at exploring the effect of studying the effects of studying SAE course on undergraduate students' attitudes toward teaching LSN. It also aims at finding out if the statistical differences are affected by the class standing after the participants study the SAE course.

2. Method

2.1 Research Design

A one-group pretest-posttest design was used in the current research. This design is a type of research design that is most often utilized by behavioral researchers to determine the effect of a treatment or intervention on a given sample (Knapp, 2016). In this design, the dependent variable is measured once before the treatment is implemented, and once after it is implemented. The effect of treatment is measured by calculating the statistical differences in the two tests (Al-Hadabi et al., in press).

2.2 Participant

Participants were 19 female students enrolled in Bachelor of AE at SQU in the first semester of 2019/2020. In addition, the class standing of participants was 8 juniors and 11 seniors. Table 1 Distribution of the participants according to class standing.

Table 1. Distribution of participants according to class standing

Class Standing	N	%
Junior	8	42
Senior	11	58
Total	19	100

2.3 Instrument

The scale on Attitudes toward individuals with disabilities (ATID) was used (Al-Hadabi et al., in press). The ATID scale consisted of 34 items distributed into three domains: Course Instructor (CI), Course Topics (CT), and Course Teaching Methods (CTM). Moreover, items of each domain were divided as follows: CI (1 to 11), CT (12 to 22), and CTM (23 to 34). The participants respond according to the 5-point Likert Scale from strongly agree (5) to strongly disagree (1). Al-Hadabi et al., (in press) adopted the following criterion to judge the level of ATID: low (1:00 to 2.33), moderate (2.34 to 3.67), and high (3.68 to 5:00). The psychometric characteristics of the AID scale were verified.

2.4 Procedures

In this research, the ATID scale was designed by Google Drive to facilitate administering to the target participants. The participants responded to the ATID scale during the first semester of 2019/2020. The first time was at the beginning of September and the second time at the end of December 2019. The data were collected from participants at the beginning and the end of the first semester 2019/2020. In addition, the following statistical methods were used to analyze the data: Wilcoxon Signed Rank Test to identify the participants' responses on the pre and post-ATID scale. Mann–Whitney test to determine if participants' attitudes affected by class standing. Moreover, the effect size (ES) was used to identify effects size of the SAE course on the participants' attitudes. The level of significance was set at 0.05.

3. Results

Table 2 illustrates the descriptive statistics of the participants' responses on the pre and post- ATID scale. The table shows there were differences in the estimates of participants on the pre and post-AID scale. The mean of the post-ATID scale was higher than of the pre-ATID scale. This means that the participants' attitudes on the post-ATID scale prominently improved. To find these differences, the Wilcoxon Signed Rank Test was used. Table 3 shows the results.

Table 2. Descriptive statistics

Domains	Measure	N	M	SD
CI	Pre-ATID	19	2.65	.219
	Post-ATID		3.79	.178
CT	Pre-ATID	19	2.58	.172
	Post-ATID		3.72	.336
CTM	Pre-ATID	19	2.57	.289
	Post-ATID		3.72	.283

Table 3. Wilcoxon Signed-Rank

Domains	Ranks	Mean Rank	Sum of Ranks	Z	p	ES
CI	Negative Ranks	.00	.00	-3.829	0.001	0.638
	Positive Ranks	10.00	190.00			
CS	Negative Ranks	.00	.00	-3.830	0.001	0.638
	Positive Ranks	10.00	190.00			
CMA	Negative Ranks	.00	.00	-3.827	0.001	0.637
	Positive Ranks	10.00	190.00			

Table 3 shows that there were statistically significant differences between the mean rank of the participants' response on the pre and post-ATID scale. These differences were in favor on the post-ATID scale (Z = -3.829, -3.830, -3.827, p = .0001). Additionally, the ES showed high effect size of the studying SAE course on modifying of the participants' attitudes toward LSE. Table 4 shows if these statistical differences were affected by the participants' class standing on the post-ATID scale.

Table 4. Descriptive statistics according to class standing

Domain	Class Standing	N	M	SD
CI	Junior	8	3.82	.208
	Senior	11	3.76	.159
CT	Junior	8	3.72	.468
	Senior	11	3.74	.222
CTM	Junior	8	3.73	.273
	Senior	11	3.71	.303

Table 4 shows there were differences in the estimates of participants on the post-ATID scale. To determine the statistical significance of these differences, the Mann-Whitney test was used. Table 5 shows the results of the Mann-Whitney.

Table 5. Results of Mann–Whitney U test according to the class standing

Domain	Class Standing	Mean Rank	Sum of Ranks	U	Z	P
CI	Junior	10.56	84.50	39.500	-.381	.704
	Senior	9.59	105.50			
CT	Junior	9.50	76.00	40.000	-.332	.740
	Senior	10.36	114.00			
CTM	Junior	9.63	77.00	41.000	-.251	.802
	Senior	10.27	113.00			

Table 5 shows that there were no statistically significant differences between the mean rank of the participants' response on the post-ATID scale according to class standing (Z = -.381, -.332, -.251, P = .704, .740, .802).

4. Discussion

The results of the current research showed that the study of the SAE course contributed to finding positive attitudes among the participants towards the LSN education. This effect was demonstrated by the significant effect size that the study of this course had an impact on the attitudes of participants. Accordingly, these results support the belief that attitudes towards the education of the LSN can be improved among undergraduate AE students if the courses have experiences, activities, appropriate teaching methods, and topics dealing with AE and field experiences on teaching visual arts to the LSN.

It is concluded from these results that the SAE course topics and teaching methods are not sufficient on to modify their own attitudes, but also need a teacher who possesses humanistic attitudes towards the LSN that positively reflect on the beliefs and attitudes of the course students. Accordingly, it can be said that the topics, teaching methods, field activities and attitudes of the course instructor included in the SAE course helped in the positive attitudes of the

participants and their desire to teach the LSN in Omani special education institutions and schools. In general, studying special education courses may help in modifying attitudes towards the LSN (Abuzaitoun, 2013; Abu Darwesh & Bsharah, 2007).

The SAE course has included theoretical and conceptual topics that gained the participants a knowledge outcome about teaching AE for special education categories. It is assumed that the study of these topics helps in shaping positive attitudes towards the LSN among students of the SAE course. The contemplative of the topics included in the SAE course, it is noticed that they dealt with various forms of visual and plastic arts that are appropriate for the different categories of special education. It is worth noting that the aim of teaching visual arts is not to train AE students to produce artistic works only, but also to modify their behavior through artistic works. Visual arts are a means for providing art education students with the capabilities of visualization, imagination, creativity, and the development of visual culture that is reflected in their emotional aspects and their aesthetic appreciation. Al-Yahyai (2015) emphasized the philosophical foundations of the visual arts and their effectiveness in contemporary graphic work and in AE and artistic production.

It can be said that the learning of AE students in visual arts is more a general theory of artistic behavior than a theory of knowledge. In other words, the teaching of visual arts content must be planned according to contemporary trends in teaching visual arts; because these arts contribute to the accumulation of teaching and learning experiences. Therefore, the SAE course topics that dealt with the various categories of special education contributed to providing a visual environment that provided the course students with an area of critical analysis and visual culture of how to teach visual arts to the LSN. The SAE course contained practical topics on how to use visual arts therapy techniques to create positive attitudes among the participants. These techniques are a form of psychotherapy that depends on creative expression using various forms of visual arts. Im & Lee (2014) confirmed that visual arts therapy has an effect on reducing depression symptoms and improving happiness and satisfaction. On the other hand, Allahverdiyev et al. (2017) stressed the importance of integrating AE and art therapy into special education placements because it helps in improving students' skills.

In this regard, Al-Ameri (2016) emphasized the importance of the quality of AE curricula to be more productive than their role in disseminating knowledge in the minds of learners. On the other hand, the recommendations of evaluative research for the AE Program in SQU (Kazem & Kalash, 2006; Kalash & Kazem, 2005) were positively reflected in the review of the SAE course and other courses. The contemplative of the SAE course notes that it included contemporary topics that dealt with teaching AE for the various categories of special education, and this may be the response of the AED at SQU to tending to the quality and academic accreditation. The AED adopts the standards of the National Art Education Association (NAEA) which include a set of experiences, knowledge and skills that art education teachers and school students must acquire (Al-Ameri, 2010). These standards also represent a professional judgment on the quality of pre-service preparation programs for Omani AE teachers (Al-Farsi & Al-Ameri, 2017; Ameri, 2016). In other words, the adoption of quality of standards and indicators helps in making judgments about the inputs, processes and outputs in the educational process and the quality of academic programs in universities (Al-Zoubi & Bani Abdel Rahman, 2013). Participants' study of the SAE course may provide a feedback on the level of knowledge and performance competencies as a result of the theoretical knowledge and practical experiences included in the SAE course that may contribute to improving their teaching performance.

The CTM used in the SAE course modified attitudes toward the Omani LSN among the participants in this research. The contemplative of the description of the SAE course notes that it included teaching positions based on dialogue, discussion and thinking skills. In this context, Al-Ameri et al. (2015) presented a habit of mind model for teaching contemporary AE for students at SQU. This model can be used in designing educational situations based on visual arts, in addition to the planning and teaching process during the field training period for undergraduate art education students. The hosting of this course teacher for individuals with disabilities practicing technical education may have contributed to modifying the attitudes towards the LSN teaching. Hosting these live models in lectures made the students of the SAE course interact with them and gain real-world experiences up close. The activities and field visits to Omani general education schools and special education institutions have also positively contributed to modifying the attitudes of the students of the SAE course. On a more comprehensive side, the universities' AED might have a mission that encourages university students to practice plastic art activities. The open art studio, art exhibitions and charity bazaars contribute to enhancing the educational, psychological, social and behavioral aspects of college students (Al-Yahyai et al., 2016).

The attitudes and positions that the SAE course instructor held towards LSN positively reflected on his/her teaching performance. The positive cognitive and affective aspects held by university course teachers contribute to modifying

university students 'attitudes towards various areas of life. Therefore, human attitudes and positions represent a system of beliefs and behavioral tendencies that grow with the individual according to the different stages of development (Maghayreh & Alelwan, 2011). Thus, art education teachers play a major role in developing students' motivation towards learning and improving the aesthetic sensitivity of the arts (Al-Amri et al., 2016). It is imperative that students at the AED in the universities be provided with courses on teaching visual arts to the LSN. In contrast, in-service training programs contribute to modifying attitudes and providing teachers with educational and personal competencies to deal with LSN (Al-Mamari et al., 2020; Al-Khatri et al., 2020; Al-Zoubi & Nefaie, 2019).

5. Conclusion

The results of the current research indicated that the study of the SAE course contributed to shaping positive attitudes among the participants. This emerged from the high impact of the SAE course. Accordingly, it can be said that the course topics, teaching methods and the course instructor had an effective role in increasing the effect size. In fact, adjusting attitudes and positions requires a period of time. But perhaps the participants 'study of course topics over a semester helped to modify their attitudes towards teaching visual arts to the LSN.

The research project team recommends converting the course into a core course and raising its hours to 3 credit hours, and adding other courses to the program's plan dealing with AE of the LSN. It is also possible to add topics in program plan courses dealing with the SAE course. The admission of individuals with disabilities into the programs of the AED at SQU can contribute to modifying attitudes and positions towards them. Finally, the research project team recommends creating a Master degree program in Special Art Education to be the first program offered in Omani and Arab universities. Whereas, offering this program may contribute to disseminating awareness of artistic education for special groups and will positively reflect on the spread of AE for special groups in human societies. The small size of the research sample and the fact that female participants are among the determinants that limit the generalizability of research results to AEDs in the universities.

Acknowledgements

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