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The role of extracurricular student activities in enriching artistic skills among Saudi university students: King Faisal university as a model

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Abstract

The goal of the study was to explore the role of extracurricular student activities (ESA) in enriching the artistic skills of university youth at King Faisal University (KFU) in Al-Ahsa, Kingdom of Saudi Arabia. It also aimed to identify differences in participants' perspectives regarding this role based on selected demographic variables (gender, academic level, major, and GPA). A total of 724 male and female students participated in the study. The research adopted a descriptive survey methodology, and a questionnaire was developed to examine students' perceptions of the contribution of ESA to enhancing artistic skills. The results indicated that the perceived role of ESA in enriching artistic skills was high among participants. Furthermore, the findings revealed no statistically significant differences in responses based on gender (male/female), while statistically significant differences were found based on academic level (undergraduate vs. graduate), in favor of graduate students. Significant differences were also observed based on college type (humanities, applied sciences, health), and GPA categories (2-2.99, 3-3.99, 4-5). Based on these findings, the study recommends several measures to enhance the role of ESA in developing students' artistic skills at KFU. These include increasing support for extracurricular programs due to their significant impact on artistic skill development, encouraging students to participate in the design and leadership of artistic activities under the supervision of faculty members from the Art Education Department, and highlighting outstanding students in extracurricular artistic activities through university media platforms and recognizing them with awards.

Keywords: Artistic skills, Extracurricular student activities, King Faisal University, University students.

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1. Introduction

Student activities extend beyond academic pursuits to include various curricular and extracurricular domains, significantly shaping the overall university experience. Students often consider extracurricular and practical training activities among the most beneficial in preparing for future careers. This underscores the importance of engaging in diverse activities during university studies to boost self-confidence and meet professional expectations [1]. Participation in such activities enhances students' sense of purpose and helps them adapt, especially when these activities are aligned with their academic trajectories [2]. According to Kravchenko et al. [3] it is essential to assess various levels of student social engagement and involvement in university life. Abunasser et al. [4] also emphasize that identifying and nurturing talented students is a vital component of university strategies and programs aimed at supporting gifted learners.

ESA refers to a range of non-academic pursuits such as sports, social, cultural, or artistic engagements organized under university supervision with defined objectives. These activities are tailored to students' interests and abilities to help them acquire valuable experiences, skills, attitudes, and values that promote responsibility. As such, ESAs play a pivotal role in shaping students' personalities and developing them holistically, prompting universities to invest significantly in these activities, both on and off campus [5].

The present study is important as it seeks to highlight the contribution of extracurricular student activities (ESA) in enriching artistic skills among university students, which are essential for nurturing creative thinking, practical abilities, and emotional and social development. These activities also help prepare graduates with balanced artistic, professional, and personal competencies to face future challenges.

University students' participation in various extracurricular initiatives such as clubs and community service enhances their essential life skills, ultimately contributing to the development of strong personal traits like empathy, leadership, and integrity. It also improves employability and overall well-being, promoting lifelong learning and professional success [6, 7].

ESA, in all its forms, involves a wide array of interactions and engagements, including learning, reflection, communication, and awareness core components of students' educational and personal development across both physical and virtual environments [8]. These benefits are not limited to students without disabilities; in fact, ESAs also play a key role in developing life skills among students with disabilities by addressing their specific needs based on disability type, academic major, and level of participation, thereby enhancing their overall educational experience [9].

For example, studies have shown that participation in recreational sports activities improves students' physical health, supports psychological well-being, and promotes stress management and social interaction [10, 11]. In addition, engaging in such activities can increase social awareness and sound political thinking, leading to a greater sense of civic responsibility [12]. Research-oriented ESA also enriches knowledge and scientific output through the active participation of both faculty and students [13].

University ESA are creative endeavors that support innovative thinking, challenging traditional academic norms. Creativity and activity hold equal importance in fostering student engagement and development [14, 15]. Among these, artistic ESA stands out by enhancing creativity, collaboration, communication, and social interaction, while also fostering critical thinking. Effective implementation requires strong collaboration between supervisors and students [16, 17], given that artistic skills involve a set of competencies that can be cultivated through such activities. These skills not only enhance students' creative expression but also contribute to their personal and professional growth across fields.

Alghamdi et al. [18] point out that artistic skills can be developed through structured stages, including organizational, diagnostic, analytical, methodological, synthetic, and automation phases, which help students master techniques such as color blending and brushwork. Moreover, integrating art into non-art disciplines (e.g., engineering) enhances students' appreciation for creativity and its value in their respective fields [19].

Despite their importance, university students face several challenges that hinder their participation in ESA. These include a lack of awareness about ESA's value, hesitation to engage, academic workloads, limited motivational incentives, budget constraints, a lack of qualified personnel, insufficient encouragement from faculty, and the absence of participation in course assessments. Additionally, there is a perception among some students that extracurricular involvement is a waste of time, especially when achievements are not publicly recognized [5, 20-22].

At King Faisal University (KFU) in the Kingdom of Saudi Arabia, ESA encompasses a variety of events and programs conducted outside lecture hours, particularly those related to national and international celebrations. Many of these are organized by academic departments and student clubs, with student involvement being a central goal in order to cultivate their skills and community engagement. The university adopts a balanced educational approach that emphasizes extracurricular participation [23].

Although Anzivino and Rostan [24] found that extracurricular involvement enhances academic performance and career readiness. Some students prioritize academic achievement over participation, fearing that extracurricular commitments may detract from their academic responsibilities unless a balance is properly maintained.

While there is growing interest in artistic ESA in higher education, most prior research has focused on their impact on personality development, critical thinking, analytical skills, civic engagement, leadership, and work ethics [5, 25-27]. However, the researchers of the current study found a lack of studies specifically addressing the role of ESA in enriching artistic skills among university students. This study aims to fill that gap by examining how such activities contribute to the development of artistic skills at KFU. The study seeks to answer the following research questions:

1. What is the role of ESA in enriching artistic skills from the perspective of students at KFU?
2. What is the degree of difference in participants' responses regarding the role of ESA in enhancing artistic skills from the perspective of KFU students according to the gender variable?

3. What is the degree of difference in participants' responses regarding the role of ESA in enriching their artistic skills from the perspective of KFU students, based on the variable of academic level (undergraduate vs. graduate)?
4. What is the degree of difference in the participants' responses regarding the role of ESA in enhancing their artistic skills from the perspective of KFU students, based on the type of college (humanities, applied sciences, or health)?
5. What is the degree of difference in participants' responses regarding the role of ESA in enriching their artistic skills from the perspective of KFU students based on the variable of cumulative GPA?

2. Methodology

The descriptive survey method was employed in this study to explore the role of ESA in enhancing the artistic skills of students at KFU. The study also aimed to examine differences in participants' perceptions regarding this role based on several demographic variables, such as gender, academic level, college type, and cumulative GPA.

2.1. Population and Sample of the Study

The study population included all students enrolled at KFU in Al-Ahsa Governorate, totaling 45,118 students, 39,726 undergraduates and 5,392 graduates. The psychometric properties of the questionnaire were evaluated using a pilot sample of 210 male and female students from both undergraduate and graduate levels, representing various colleges and a range of cumulative GPAs. The finalized questionnaire was subsequently administered to the main study sample, which consisted of 724 students.

2.2. Procedures for Administering the Instrument to the Pilot and Main Samples

Following the review and approval of the questionnaire by a panel of experts, and after obtaining the necessary ethical approvals from KFU (Approval No. KFU-2025-ETHICS3304), the questionnaire was deemed ready for psychometric validation. The researchers converted the questionnaire into an electronic format and distributed it through the university's official procedures for disseminating surveys. It was initially shared via the university email system with students across all colleges, and a convenience sample of 210 students was obtained for the pilot phase. Appropriate statistical analyses were conducted to verify the validity, reliability, and internal consistency of the instrument.

Subsequently, the finalized questionnaire was redistributed using the same procedures but through a different university-wide email list than the one used for the pilot phase. A convenience sample of 724 students was obtained for the main study. These participants were categorized based on the specified demographic variables, as detailed in Table 1.

Table 1.
Distribution of the main study sample according to demographic variables.

Variable	Category	Frequency	Percentage
Gender	Male	311	42.96%
	Female	413	57.04%
Academic Level	Undergraduate	404	58.80%
	Graduate	320	44.20%
College Type	Humanities	356	49.17%
	Applied Sciences	280	38.67%
	Health Sciences	88	12.15%
Cumulative GPA	2.00–2.99	60	8.39%
	3.00–3.99	232	32.04%
	4.00–5.00	432	59.67%
Total		724	100%

2.3. Study Instrument

2.3.1. Extracurricular Student Activities Questionnaire (ESAQ)

The researchers initially developed a draft version of the questionnaire consisting of 24 items, which was presented to a panel of expert reviewers, including faculty members specializing in art education and those experienced in student activities from several Saudi universities. The experts were asked to evaluate the relevance of the items, the linguistic accuracy and clarity of wording, and the overall coverage of the study topic. Items that received an agreement rate of 90% or higher were retained. As a result, the final version of the questionnaire consisted of 20 items after removing four items that did not meet the required agreement threshold.

The researchers adopted a five-point Likert scale for responses, with the following options:
Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1.

Accordingly, a respondent's total score on the scale could range between 20 and 100, with the higher score indicating a greater perceived role of ESA in enriching artistic skills, and the lower score indicating a smaller perceived role of ESA.

To aid interpretation of the results, Table 2 was used as a benchmark for interpreting mean scores and relative weights:

Table 2.
Benchmark used in the study.

Mean Score	Interpretation
1.00 – 1.80	Very Low
>1.80 – 2.60	Low
>2.60 – 3.40	Moderate
>3.40 – 4.20	High
>4.20 – 5.00	Very High

2.4. Psychometric Properties of the Scale

2.4.1. Exploratory Factor Validity

To examine the factorial structure of the scale, the researchers conducted Exploratory Factor Analysis (EFA) to ensure that the associated items truly measured a single latent dimension. This was done by assessing the internal coherence and inter-item correlation within each hypothesized factor.

The EFA was performed on responses from the study sample using the Principal Component Analysis (PCA) method with Promax rotation, aiming to identify the number of extracted factors and the strength of the loading of each item onto its respective factor. A factor loading threshold of .50 or higher was adopted to determine whether an item was accepted as part of a specific factor.

Table 3.
Presents the factor loadings of the ESAQ items.

Factor 1		Uniqueness
Item_1	0.778	0.395
Item_2	0.750	0.438
Item_3	0.805	0.351
Item_4	0.787	0.381
Item_5	0.798	0.363
Item_6	0.796	0.366
Item_7	0.772	0.404
Item_8	0.782	0.388
Item_9	0.797	0.364
Item_10	0.778	0.395
Item_11	0.775	0.399
Item_12	0.810	0.344
Item_13	0.797	0.365
Item_14	0.829	0.312
Item_15	0.773	0.402
Item_16	0.778	0.395
Item_17	0.808	0.347
Item_18	0.829	0.314
Item_19	0.787	0.381
Item_20	0.789	0.378

It is evident from Table 3 that all items of this factor meet the required saturation criteria, with factor loadings ranging from .75 to .829. All these items are associated exclusively with this dimension, indicating that this factor is pure and that the items within it do not contain any cross-loadings. Each item has a single factor loading. This is further illustrated in Figure 1.

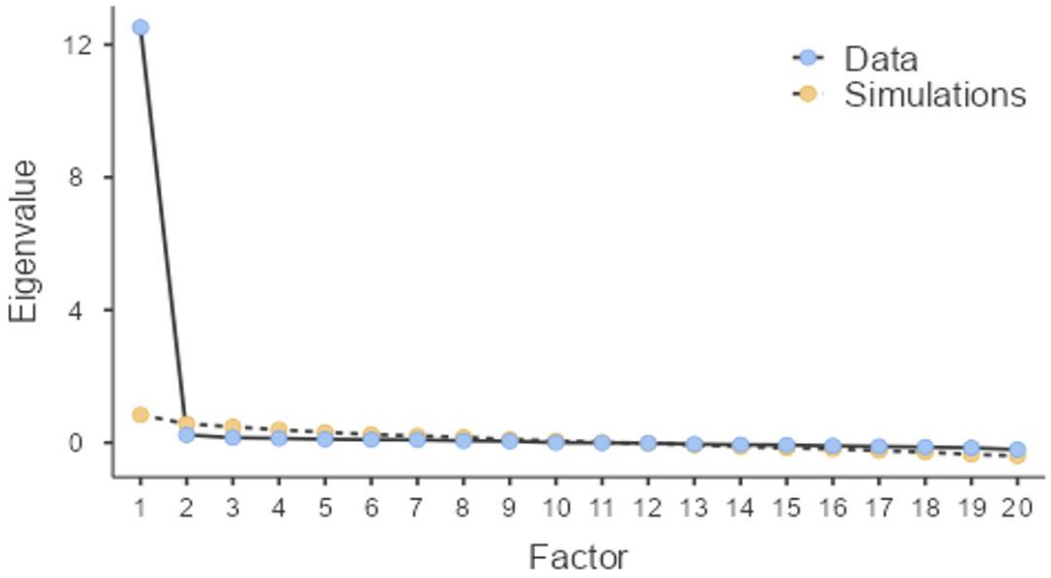

Figure 1.
Shows the loadings of correlation coefficients on the ESAQ.

2.5. Confirmatory Factor Analysis Validity

The researchers employed Confirmatory Factor Analysis (CFA) to verify the extent to which the hypothesized measurement model of the scale aligns with the actual data. The aim was to ensure that the items belong to the construct they were designed to measure and to assess their consistency with the theoretical framework of the tool. This analysis is an essential statistical method within construct validity, as it helps confirm the adequacy of the theoretical model by estimating the factor loadings and matching the model using several statistical indicators that reflect the quality of the scale's structural representation.

Table 4.
Results of confirmatory factor analysis (CFA).

Factor	Indicator	Estimate	SE	Z	p	Stand. Estimate
Factor 1	Item_1	0.837	0.0625	13.4	< 0.001	0.778
	Item_2	0.795	0.0626	12.7	< 0.001	0.751
	Item_3	0.854	0.0606	14.1	< 0.001	0.806
	Item_4	0.816	0.0600	13.6	< 0.001	0.787
	Item_5	0.864	0.0621	13.9	< 0.001	0.799
	Item_6	0.841	0.0607	13.9	< 0.001	0.797
	Item_7	0.807	0.0610	13.2	< 0.001	0.771
	Item_8	0.821	0.0610	13.5	< 0.001	0.781
	Item_9	0.879	0.0633	13.9	< 0.001	0.798
	Item_10	0.753	0.0561	13.4	< 0.001	0.779
	Item_11	0.811	0.0611	13.3	< 0.001	0.774
	Item_12	0.846	0.0596	14.2	< 0.001	0.810
	Item_13	0.878	0.0635	13.8	< 0.001	0.796
	Item_14	0.880	0.0598	14.7	< 0.001	0.829
	Item_15	0.789	0.0596	13.2	< 0.001	0.772
	Item_16	0.850	0.0635	13.4	< 0.001	0.778
	Item_17	0.837	0.0592	14.1	< 0.001	0.808
	Item_18	0.880	0.0599	14.7	< 0.001	0.828
	Item_19	0.828	0.0609	13.6	< 0.001	0.787
	Item_20	0.863	0.0631	13.7	< 0.001	0.790

It is clear from Table 4 that all the items of the questionnaire had probability values of less than 0.01. The researchers calculated the structural validity indicators of the questionnaire, as shown in Table 5.

Table 5.
Model Fit Indicators.

χ^2	df	p	CFI	TLI	RMSEA
205	170	170	0.990	0.988	0.0315

It is evident from Table 5 that the model fit indicators are appropriate, as the value of χ^2 for the model is 205 with 170 degrees of freedom, and a p-value of .033, which is less than .05. The goodness-of-fit indicators were *CFI* =.990, *TLI* =.988, and RMSEA =.0315, indicating a good fit for the confirmatory factor analysis model of the used questionnaire. The results of the confirmatory factor analysis for the questionnaire structure can be illustrated in the following figure:

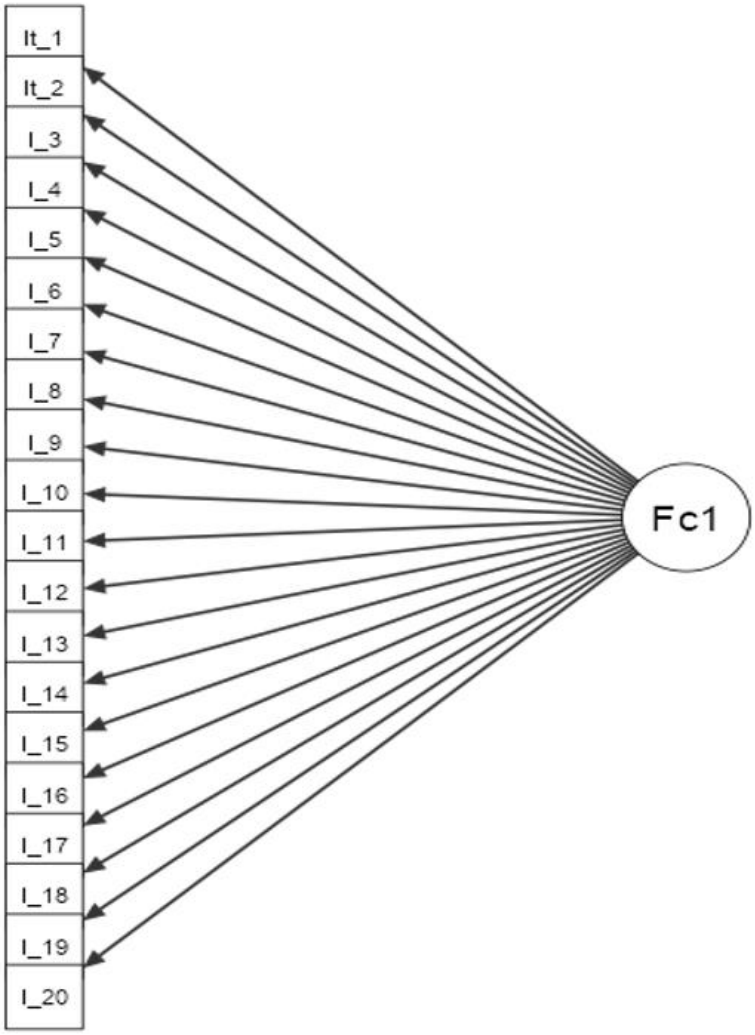

Figure 2.
Illustrates the results of the confirmatory factor analysis for the questionnaire structure.

2.6. Reliability

The reliability value for the factor of the questionnaire was calculated using Cronbach's α, which was .971. This indicates an extremely high reliability coefficient, confirming the stability of the questionnaire. The correlation heatmap is shown in the following figure:

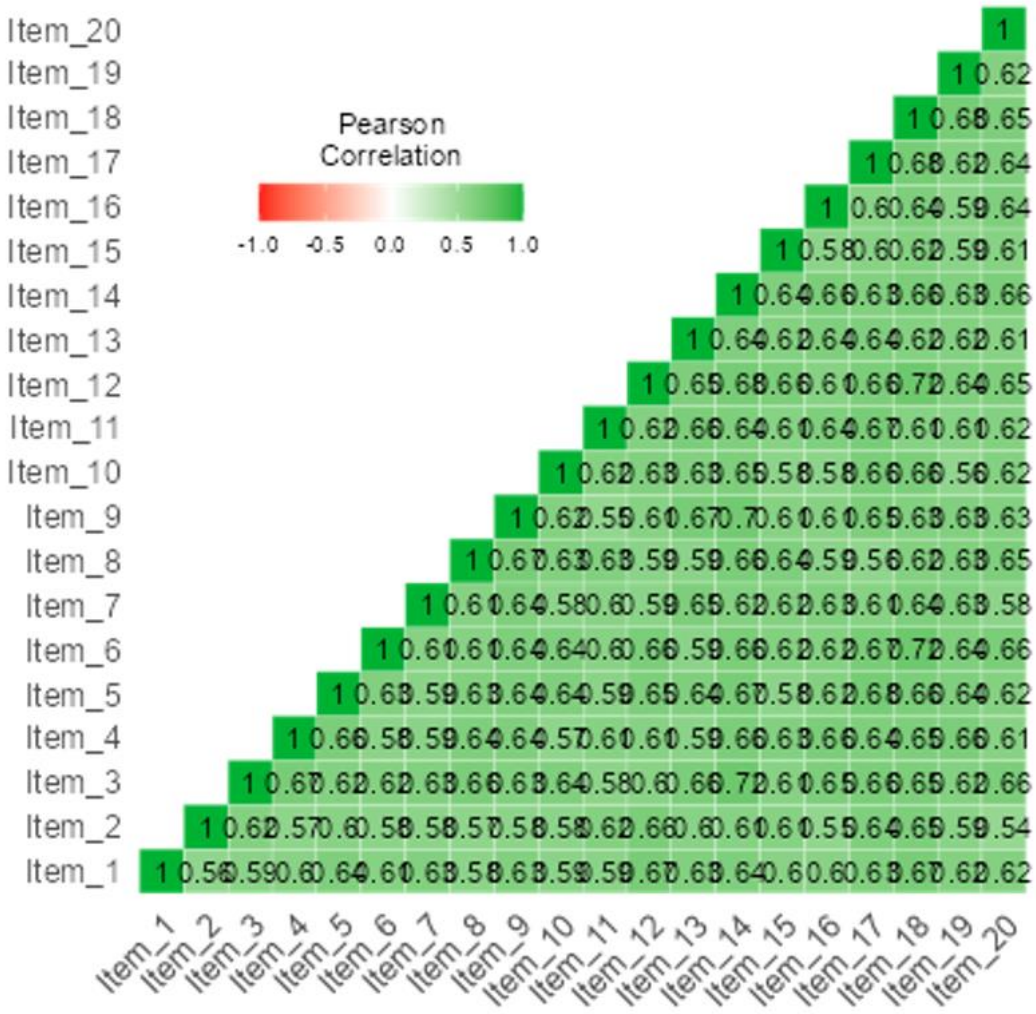

Figure 3.
Shows the correlation heatmap.

2.7. Data Collection and Analysis

The study relied on a descriptive survey methodology to assess and analyze the perceptions of university students regarding the role of ESA in enhancing their artistic skills. A questionnaire specifically designed by the researchers was used for data collection. Data were collected between February 2025 and April 2025. During this period, the questionnaire was distributed electronically to university students, ensuring participant privacy and confidentiality. All data were anonymized and processed in accordance with ethical principles approved by the Institutional Review Board of the study. A total of 724 students from various faculties (Humanities, Applied Sciences, Health) and academic levels (undergraduate and graduate) responded. The data were collected, organized, and structured using Excel, then entered and coded using SPSS software. Descriptive statistical methods, such as mean scores and standard deviations, were used to measure participants' evaluations of the role of ESA in enhancing their artistic skills. The normality of the data distribution was tested using the Shapiro-Wilk test, and homogeneity of variance between groups was checked using Levene's test. Based on this, an Independent Samples t-test was used to test for significant differences between group means based on gender (Male, Female) and academic level (Undergraduate, Graduate). An Analysis of Variance (ANOVA) was then conducted to test for differences based on faculty type (Humanities, Applied Sciences, Health) and cumulative GPA (2.0-2.99, 3.0-3.99, 4.0-5.0). Post-hoc comparisons were made using the LSD (Least Significant Difference) test to identify the direction of differences when significant results were found in the ANOVA. Excel was used to generate graphs. Data analysis revealed the significant role of ESA in enhancing artistic skills, as well as the impact of demographic variables on students' perceptions of the role of ESA in enhancing the targeted skills.

3. Results

Question 1: What is the role of ESA in enhancing artistic skills from the perspective of students at KFU?

To answer this question, frequencies, mean scores, and standard deviations were calculated for the responses of participating students at KFU to the items on the ESAQ designed to measure the role of ESA in enhancing their artistic skills. The results are presented in Table 6.

Table 6.
Descriptive statistics of KFU students' perceptions regarding the role of ESA in enhancing their artistic skills (*n*=724).

No.	Item	SA n(%)	A n(%)	N n(%)	D n(%)	SD n(%)	*M*	*SD*	Degree	Rank
1	Do you believe that ESA contributes to enhancing your artistic skills?	388(53.6)	228(31.5)	80(11)	16(2.2)	12(1.7)	4.33	.88	Very High	2
2	Have your skills in drawing and design improved as a result of your participation in ESA?	220(30.4)	228(31.5)	180(24.9)	72(9.9)	24(3.3)	3.76	1.091	High	17
3	Do you find ESA a source of your creative inspiration?	356(49.2)	260(35.9)	84(11.6)	12(1.7)	12(1.7)	4.29	.859	Very High	4
4	Does ESA provide a suitable environment for developing your artistic skills?	280(38.7)	288(39.8)	116(16.0)	24(3.3)	16(2.2)	4.09	.933	High	13
5	Do you feel that ESA has helped you improve your critical thinking skills?	316(43.6)	228(31.5)	140(19.3)	16(2.2)	24(3.3)	4.1	1.004	High	12
6	Do you believe that your participation in ESA contributes to improving your creativity level?	424(58.6)	216(29.8)	64(8.8)	8(1.1)	12(1.7)	4.43	.829	Very High	1
7	Does ESA provide you with opportunities for practical learning in the artistic field?	352(48.6)	232(32)	112(15.5)	20(2.8)	8(1.1)	4.24	.89	Very High	7
8	Do ESAs enhance your ability to think innovatively?	344(47.5)	272(37.6)	84(11.6)	12(1.7)	12(1.7)	4.28	.855	Very High	5
9	Do you think that ESA helps build your self-confidence in the arts?	376(51.9)	224(30.9)	104(14.4)	12(1.7)	8(1.1)	4.31	.857	Very High	3
10	Does ESA provide social interaction that helps develop your skills?	344(47.5)	272(37.6)	76(10.5)	24(3.3)	8(1.1)	4.27	.86	Very High	6
11	Do you find enough time to participate in artistic ESA?	152(21)	152(21)	204(28.2)	152(21)	64(8.8)	3.24	1.248	medium	20
12	Do ESAs contribute to developing your fine motor skills?	236(32.6)	260(35.9)	184(25.4)	20(2.8)	24(3.3)	3.92	.992	High	15

13	Do ESAs positively affect the improvement of your cognitive skills?	280(38.7)	300(41.4)	104(14.4)	28(3.9)	12(1.7)	4.12	.907	High	11
14	Is there sufficient support for ESA at the university?	228(31.5)	260(35.9)	152(21)	48(6.6)	36(5)	3.82	1.099	High	16
15	Do you actively participate in organizing extracurricular artistic activities?	244(33.7)	208(28.7)	152(21)	88(12.2)	32(4.4)	3.75	1.171	High	18
16	Does ESA help improve your teamwork skills?	324(44.8)	260(35.9)	84(11.6)	36(5)	20(2.8)	4.15	.995	High	9
17	Do you consider ESA an effective tool for developing your artistic skills?	324(44.8)	264(36.5)	100(13.8)	12(1.7)	24(3.3)	4.18	.959	High	8
18	Is there a need for more ESA to develop artistic skills?	308(42.5)	272(37.6)	88(12.2)	40(5.5)	16(2.2)	4.13	.976	High	10
19	Do you think that artistic ESA has a direct impact on your academic success?	284(39.2)	244(33.7)	116(16)	56(7.7)	24(3.3)	3.98	1.078	High	14
20	Do you have access to the necessary resources to participate in artistic activities?	152(21)	148(20.4)	228(31.5)	128(17.7)	68(9.4)	3.26	1.237	medium	19
							4.03	.986		

Note: SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree.

It is clear from the results in Table 6 that the perceptions of KFU students regarding the role of ESA in enhancing their artistic skills were very high, with an *M*=4.03 and *SD*=*.986.* The results also indicated that the highest perceptions provided by the students regarding the role of ESA in enhancing their artistic skills were for statement number (6), "Do you think that your participation in ESA contributes to improving your creativity level?" with an *M*= 4.43 and a *SD*=.829. In second place was statement number (1), "Do you believe that ESA contribute to enhancing your artistic skills?" with an *M*=4.33 and *SD*=.88, followed by statement (9), "Do you think that ESA help build your self-confidence in the arts?" in third place, with an *M*=4.31 and *SD*=.857. Statement number (3), "Do you find ESA a source of your creative inspiration?" came in fourth place with an *M*=4.29 and *SD*=.859, while statement number (8), "Do ESA enhance your ability to think innovatively?" ranked fifth with an *M*=4.28 and *SD*=.855.

Meanwhile, the lowest perceptions provided by the students regarding the role of ESA in enhancing their artistic skills were for statement number (14), "Do ESAs at the university support your skills adequately?" which was ranked sixteenth, with an *M*=3.82 and *SD*=1.099. Statement number (2), "Have your skills in drawing and design improved as a result of your participation in ESA?" ranked seventeenth, with an *M*=3.76 and *SD*=1.091. Statement number (15), "Do you actively participate in organizing extracurricular artistic activities?" ranked eighteenth with an *M*=3.75 and *SD*=1.171, followed by statement number (20), "Do you have access to the necessary resources to participate in artistic activities?" ranked nineteenth with an *M*=3.26 and *SD*=1.237, and finally, statement number (11), "Do you find enough time to participate in artistic ESA?" ranked last with an *M*=3.24 and *SD*=1.248.

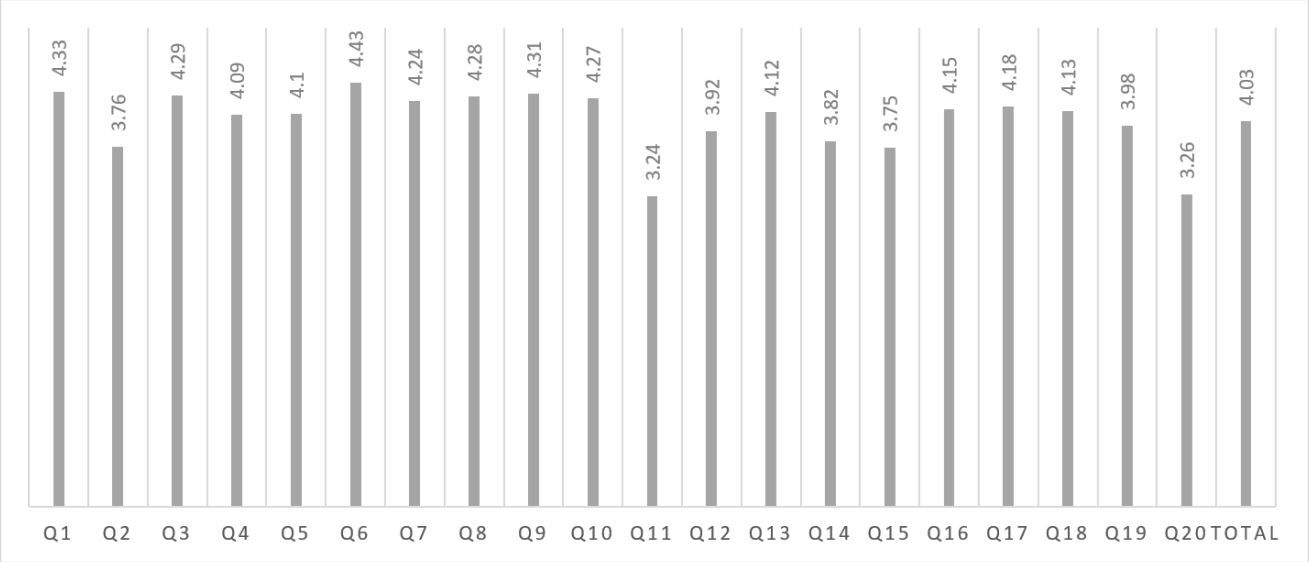

Figure 4.
Illustrates the mean scores of students' perceptions of the role of ESA in enhancing their artistic skills.

Question 2: What is the degree of difference in participants' responses regarding the role of ESA in enhancing artistic skills from the perspective of KFU students according to the gender variable?

To answer this question, the difference between the mean scores of male and female students was calculated using the Independent Samples t-test, as shown in Table 7.

Table 7.
Results of the t-test to reveal the significance of the difference in KFU students' perceptions of the role of ESA in enhancing their artistic skills attributed to the gender variable (Male, Female).

Gender	***N***	***M***	***SD***	***SE***	***T***	***df***	***P***
Male	311	80.8	14.4	0.818	.207	722	.836
Female	413	80.5	14.3	0.704			

It is evident from the results in Table 7 that there is no statistically significant difference between the mean scores of male students (M = 80.8) and female students (M = 80.5), as the t=.207 and p=.836, which is greater than .05. This indicates that there is no difference between male and female students. Figure 5 illustrates the difference between the means.

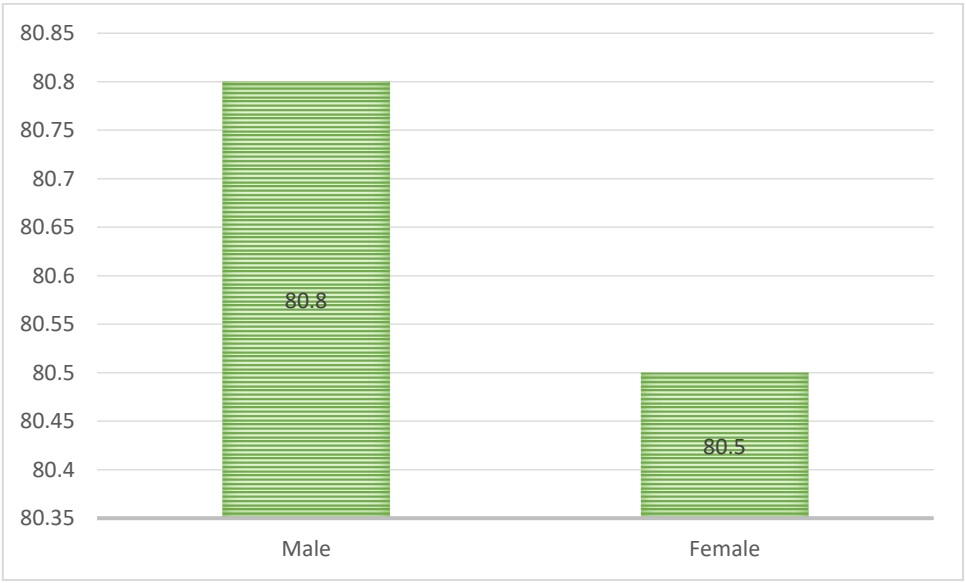

Figure 5.
Illustrates the difference between the mean scores of male and female students on the ESAQ.

Question 3: What is the degree of difference in participants' responses regarding the role of ESA in enriching their artistic skills from the perspective of KFU students, based on the variable of academic level (undergraduate vs. graduate)?

To answer this question, the difference between the mean scores of undergraduate students and graduate students was calculated using the Independent Samples t-test, as shown in Table 8.

Table 8.
Results of the Independent Samples t-test to examine the significance of the difference in KFU students' perceptions of the role of ESA in enriching their artistic skills, based on the academic level variable (undergraduate, graduate).

Academic level	N	M	SD	SE	T	df	P
Undergraduate	404	79.5	15	0.744	-2.330	722	0.020
Graduate	320	82	13.5	0.752			

It is clear from the results in Table 8 that there is a statistically significant difference between the mean scores of undergraduate students (*M* = 79.5) and graduate students (M = 82), with the higher mean being for the graduate students. The *t*=-2.330 and *p*=.020, which is less than .05. Figure 6 illustrates the difference between the means.

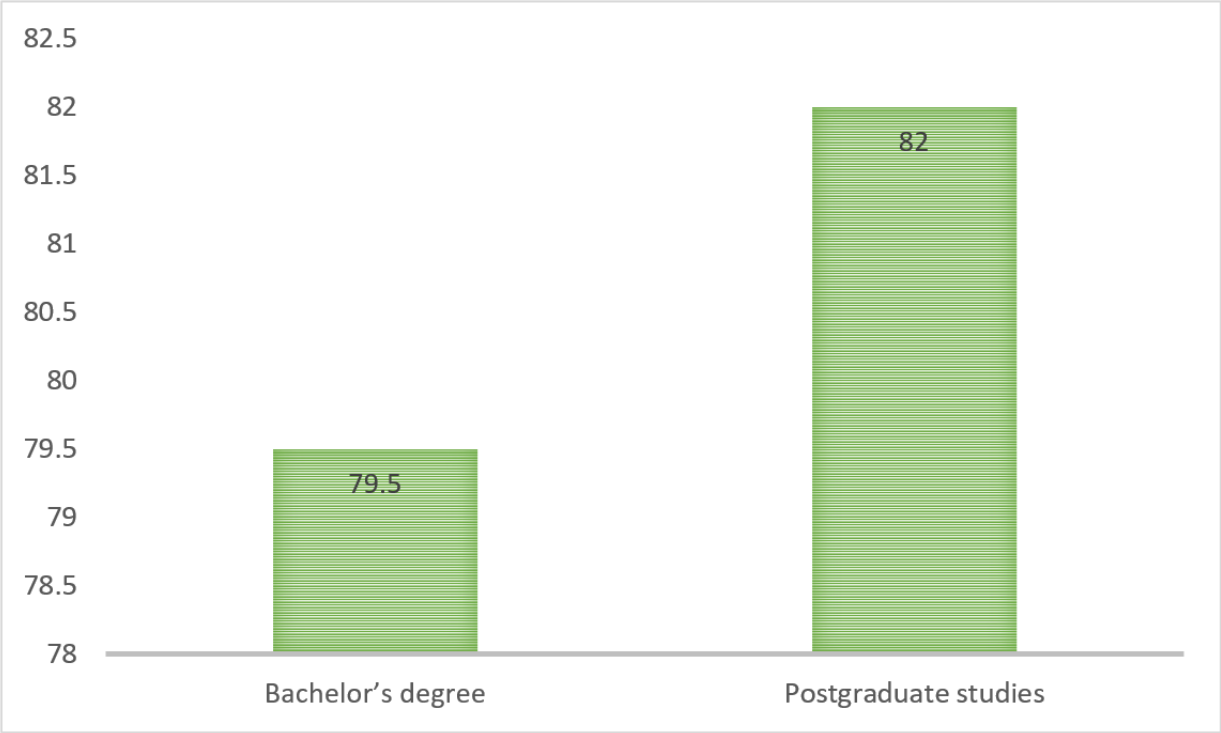

Figure 6.
Shows the difference between the mean scores of undergraduate and graduate students on the ESAQ.

Question 4: What is the degree of difference in the participants' responses regarding the role of ESA in enhancing their artistic skills from the perspective of KFU students, based on the type of college?

To answer this question, a one-way analysis of variance (ANOVA) test was used to calculate the differences between the means of KFU students' perceptions of the role of ESA in enhancing their artistic skills, based on type of college variable. As shown in Table 9.

Table 9.
Results of the t-test to detect the significance of the difference in KFU students' perceptions of the role of ESA in enhancing their artistic skills based on the type of college variable (Humanities - Applied Sciences - Health).

Type of College	N	M	SD	SE	F	df	P
Humanities	356	82.8	11.9	0.628	15.562	721	<0.001
Applied Sciences	280	80.1	16.6	0.993			
Health Sciences	88	73.6	13.6	1.448			

It is clear from the results in Table 9 that there are statistically significant differences between the mean scores of students from the humanities colleges (*M*=82.8), the colleges of applied sciences (*M*=80.1), and the health colleges (*M*=73.6). The *t*=15.562 and *p*=.001, which is less than .05. To determine which of these three groups caused these differences, the researchers performed an LSD test between the following groups: (Humanities) and (Applied Sciences), (Humanities) and (Health Sciences), and (Applied Sciences) and (Health Sciences). The results are shown *in* Table 10.

Table 10.
Results of the LSD test for post-hoc comparisons to detect the significance of differences between the mean scores of the three groups (Humanities - Applied Sciences - Health).

The difference between the mean of the group	Applied Sciences (80.1)	Health Sciences (73.6)
Humanities (82.8)	p=0.014	p<0.001
Applied Sciences (80.1)		p<0.001

Table 10 shows that there is a statistically significant difference between the mean scores of the two groups (Humanities) and (Applied Sciences), where the value of p=0.014. There is a statistically significant difference between the mean scores of the two groups (Humanities) and (Health Sciences), where the value of p<.001. There is a statistically significant difference between the mean scores of the two groups (Applied Sciences) and (Health Sciences), where the value of p<.001. These are all probability values less than .05, indicating that the three groups caused these differences. Figure 3 shows the difference between the means.

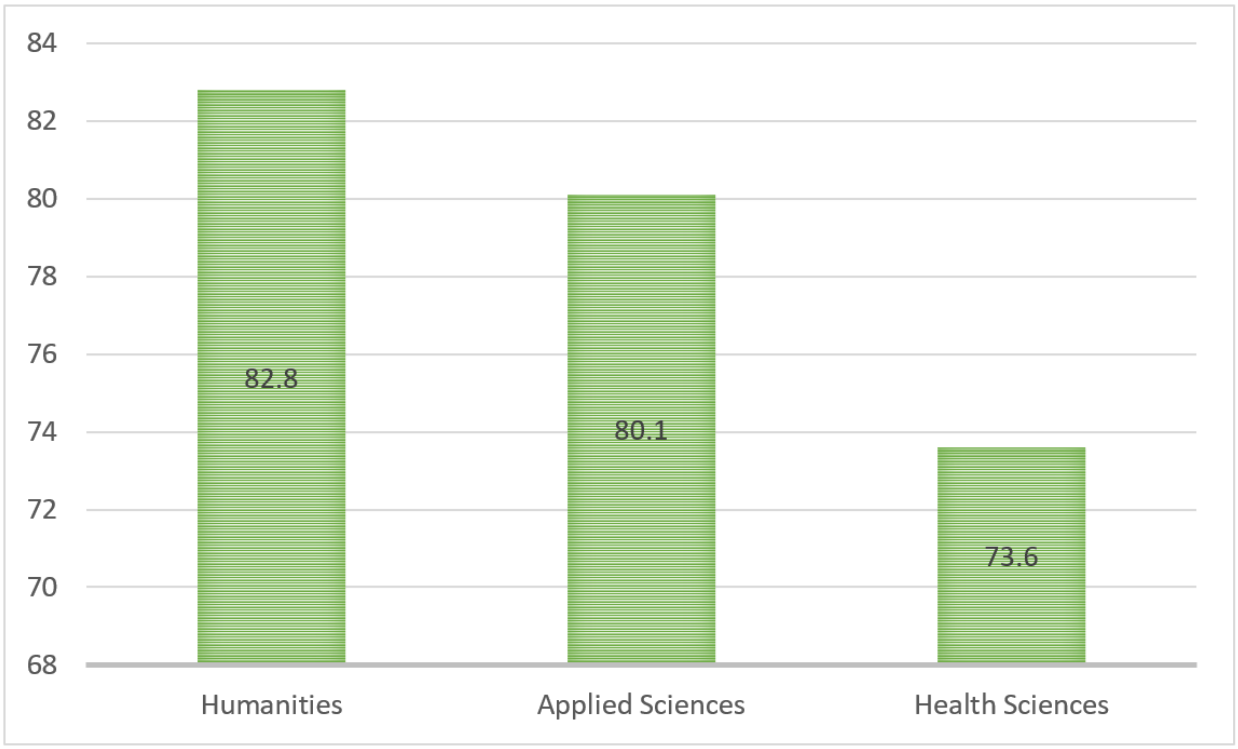

Figure 7.
Shows the difference between the mean scores of students in the humanities, applied sciences, and health colleges on the ESAQ.

It is clear that Figure 7 illustrates the differences in the mean scores of students from the humanities, applied sciences, and health colleges regarding the role of ESA in enriching their artistic skills.

Question 5: What is the degree of difference in participants' responses regarding the role of ESA in enriching their artistic skills from the perspective of KFU students based on the variable of cumulative GPA?

To answer this question, a one-way analysis of variance (ANOVA) was used to calculate the differences between the means of KFU students' perceptions regarding the role of ESA in enriching their artistic skills based on the cumulative GPA variable. The results are shown in Table 11.

Table 11.
Results of the t-test to detect the significance of differences in KFU students' perceptions regarding the role of ESA in enriching their artistic skills based on the cumulative GPA variable (2-2.99, 3-3.99, 4-5).

Grade Point Average	N	M	SD	SE	T	df	P
2-2.99	60	73.6	20.2	2.607	8.236	721	<0.001
3-3.99	232	81.8	14.8	0.972			
4-5	432	81	12.8	0.618			

It is clear from the results in Table 5 that there are statistically significant differences between the mean scores of students with a cumulative GPA of 2-2.99 (M=73.6), students with a GPA of 3-3.99 (M=81.8), and students with a GPA of 4-5 (M=81). The *15.562* and p<.001, which is less than 0.05. To determine which of these three groups caused these differences, the researchers conducted LSD post hoc tests between: the two groups (2-2.99) and (3-3.99), the two groups (2-2.99) and (4-5), and the two groups (3-3.99) and (4-5). The results are shown in Table 12.

Table 12.
Results of LSD post hoc tests for detecting significant differences between the mean scores of the three groups (2-2.99, 3.33-3.99, and 4-5).

The difference between the mean of the group	3-3.99 (81.8)	4-5 (81)
2-2.99 (73.6)	$p<0.001$	$p<0.001$
3-3.99 (81.8)		$P=0.508$

It is clear from Table 12 that there is a statistically significant difference between the mean scores of the two groups (2-2.99) and (3-3.99), with a p-value of .014. Additionally, a significant difference exists between the groups (2-2.99) and (4-5), with a $p < .001$, both of which are less than .05. However, the results indicate that there is no statistically significant difference between the groups (3-3.99) and (4-5), with a p-value of 0.508, which is greater than .05. This suggests that the differences in mean scores between the groups (2-2.99) and (3-3.99), as well as between (2-2.99) and (4-5), are primarily responsible for the observed differences.

4. Discussion

The results of the study indicate that ESA has significantly contributed to enhancing the artistic skills of the participants. The highest-rated item was related to improving creativity through participation in activities, which aligns directly with the literature reviewed. The findings of this study are consistent with the results of Abunasser et al. [4] which highlighted that artistic talents were the most widespread among students at KFU (64.5%), compared to academic talents (31.8%) and athletic talents (3.6%). The study also showed that areas of talent did not align with students' academic specializations, with the most talented students coming from the College of Science. However, the results of this study differ from the findings of Barakat and Abu Ali [20] which indicated weak student participation in ESA at Al-Quds Open University in Tulkarm, and suggested that the university should focus on increasing student engagement in these activities.

The results are also consistent with other studies indicating that these types of activities provide university students with creative spaces that contribute to the development of innovative and critical thinking, breaking traditional molds, and enhancing creativity and social interaction, thereby fostering personal and professional growth. Several studies have emphasized the importance of involving students in designing these activities under the guidance of faculty members, which creates an educational and artistic impact, especially since arts can be integrated into non-artistic disciplines such as engineering and medicine to promote an appreciation for creativity [14-19].

These positive results can be explained by the fact that KFU provides an environment that offers real opportunities for active participation in ESA, especially those related to the arts (painting, photography, design), which helped develop students' artistic and creative abilities. Researchers also attribute this to the presence of an organizational structure that supports such activities through student activity committees and student clubs, aligning with current trends in higher education to enhance extracurricular aspects as an essential part of university students' development. This aligns with the findings of Al-Matari et al. [5] which found no difference between male and female students in participating in ESA. This reflects a modern approach towards providing equal opportunities for artistic activities for both genders at KFU, which adopts an inclusive approach that emphasizes gender equality in all its objectives, particularly in providing equal opportunities for participation in artistic activities, whether in terms of resources or designing extracurricular programs.

The study also aligns with Saudi Arabia's Vision 2030 and the university's mission to empower women in all fields and remove traditional barriers that have limited their participation in some activities. This is clearly evident in the increased female participation in artistic events at KFU. Arts, by their nature, are an open field for individual expression, not linked to gender characteristics, which allows both male and female students to interact with them in similar ways.

The results also revealed that academic level affects students' perceptions, as graduate students were more aware of the importance of ESA in enhancing their artistic skills compared to undergraduate students. This discrepancy could be explained by the increased academic experience and self-awareness of graduate students, supporting the view of Kravchenko et al. [3] that deeper engagement in university life increases as students progress academically. This helps refine their skills and build a more comprehensive CV that reflects their excellence and diverse experiences.

Regarding differences by college type, significant differences were found in favor of students from the humanities colleges, a result that may be attributed to the specialized nature of these colleges, particularly the College of Education, which has an art education department that encourages students to express themselves creatively and engage in artistic activities in all events. Students from this department have more opportunities to participate in exhibitions and workshops and study courses that enhance their artistic taste, making them more aware of the importance of ESA in honing their skills. In contrast, students in scientific and health colleges may be more focused on academic and professional subjects, which may reduce the time and energy they dedicate to artistic activities.

The study also revealed the effect of cumulative GPA on students' perceptions of the role of ESA in enhancing their artistic skills. Students with higher GPAs were more likely to recognize the value of these activities, as they tend to manage their time more efficiently and are more aware of the integration between academic achievements and personal and creative development. This finding supports Anzivino and Rostan [24], who indicated that participation in ESA correlates with improved academic performance due to the motivating and supportive learning environment they provide.

5. Limitations and Future Research

Despite the positive results of the study regarding the role of ESA in enhancing artistic skills, there are several limitations. The study was restricted to KFU, which limits the generalizability of the findings to other Saudi universities. Furthermore, the study relied on a self-reported questionnaire designed by the researchers using closed-ended questions as

the only data collection tool. This may have led to socially desirable responses and limited participants' ability to provide detailed opinions. Additionally, the study did not differentiate between the types of ESA that may enhance students' artistic skills, such as drawing, design, photography, or sculpture, which may have overlooked subtle differences in the impact of each activity on skill development. Given these limitations, future research is suggested to include qualitative studies using interviews or focus groups to explore students' experiences more deeply. Comparative studies across multiple universities in Saudi Arabia are also recommended to assess the role of ESA in enhancing artistic skills. Additionally, investigating the relationship between ESA and academic achievement could provide insights into whether these activities contribute to improving students' academic performance.

6. Conclusion and Recommendations

The study's results clearly show that ESAs play a crucial role in enhancing the artistic skills of KFU students. Participants rated the role of these activities highly, reflecting students' awareness of their value in developing various artistic skills and enhancing creativity. The study found significant differences in students' perceptions based on demographic variables such as academic level, type of college, and GPA, but no significant differences were found based on gender. These findings emphasize the importance of investing in ESAs as a supportive component of the academic journey.

Based on the study's findings, it is recommended that KFU further support ESA due to its vital role in enriching students' artistic skills. This can be achieved by allocating independent budgets from the university's student affairs department to provide the necessary materials and resources for these activities. The university should also design specialized artistic programs for undergraduate students and organize training workshops and art competitions, especially for first-year students, to equip them with basic skills. Furthermore, aligning extracurricular artistic activities with the nature of each college's specialization can enhance academic integration, and students should be involved in designing and leading their activities, including art exhibitions, in collaboration with the student affairs department. Lastly, the university should activate the role of the creative talent center in discovering students' artistic talents and guiding them toward suitable ESA.

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