# The Evolution of Visual Arts on Technology in Ekiti State Secondary Schools, Ekiti State, Nigeria

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**Abstract**
*This study explores the evolution of visual arts through technology in secondary schools in Ekiti State, focusing on the impact of technological advancements on art education. The study adopted a descriptive research design survey type. Five (5) research questions were raised to guide the study and 5 research hypotheses were formulated for the study. The sample for the study comprised of 100 visual art students. A self-structured questionnaire tagged Evolution of Visual Art on Technology (EVAT) was used to collect data for the study. The findings of the study revealed that there was significant influence of the use of technology in visual arts education on students' artistic skills. Also, there was significant influence of the use of technology in visual arts education on society and culture as related to secondary schools. However, there was no significant differences in the use of technology in visual arts education between male and female secondary schools students. It was also found that there was significant positive correlation between access to technological resources and students' creative expression in visual arts. Lastly, it was revealed that there was significant influence of the use of technology in visual arts education on therapies setting among secondary school students. The study recommended that government should invest in upgrading technological infrastructure in secondary schools across Ekiti State, and also ensure that all schools, regardless of their location, have access to modern digital tools and resources necessary for effective art education.*
**Keywords:** Evolution; Technology; Visual Art; Secondary School; Ekiti State

**Introduction**

Visual arts education has always been a vital component of secondary school curricula, providing students with opportunities to explore creativity, develop critical thinking skills, and express personal and cultural identities. In Ekiti State, a region renowned for its rich cultural traditions and vibrant artistic heritage, visual arts have historically been taught through traditional methods such as drawing, painting, sculpture, and printmaking. (Anderson & Maker (2014); Becker (2000); Boe & Shin (2010); Clark & Mayer (2016); Cropley (2001)).

These methods, while effective, often confine students to conventional techniques and limited resources. In recent years, technological advancements have begun to significantly impact various educational fields, including the arts. The rise of digital technology offers new tools and platforms that have the potential to revolutionize visual arts education. Technologies such as graphic design software, digital painting tablets, 3D modeling programs, and online art communities are reshaping how art is taught, practiced, and perceived. These technologies enable students to explore a broader range of artistic techniques, collaborate with peers and professionals globally, and engage with contemporary art forms that extend beyond traditional practices (Nelson (2014); Selwyn, (2011); Tan & Teo (2016) & Wagner (2005) ).

The integration of technology in visual arts education in Ekiti State presents both opportunities and challenges. On one hand, digital tools provide students with innovative ways to create and present their art. Software applications such as Adobe Photoshop and Illustrator, for example, offer advanced features for creating digital artwork, while online platforms like histogram and Deviant Art allow students to share their work with a global audience. These tools not only enhance students' technical skills but also broaden their artistic horizons and increase their exposure to global art trends .On the other hand, the adoption of technology in art education faces several obstacles. Issues such as inadequate technological infrastructure, limited access to digital tools, insufficient teacher training, and the high costs of maintaining and upgrading technology can hinder the effective integration of these resources into the classroom. These challenges can affect the quality of art education and limit the benefits that technology can bring to students and teachers alike (Kress (2003); Mardis (2012); McLoughlin & Lee (2010); Nelson (2014); Selwyn (2011); Tan &Teo (2016)).

**Statement of the Problem**

Art education in secondary schools in Ekiti State has traditionally relied on conventional teaching methods and materials. However, with the rapid advancement of technology, there is an increasing recognition of the potential for digital tools to revolutionize art education by making it more engaging, interactive, and accessible. Despite this potential, the integration of technology into art education in Ekiti State faces several challenges. These include inadequate technological infrastructure, limited access to digital resources, and insufficient training for teachers on the use of technology in the classroom. There is a pressing need to investigate how these technological advancements are influencing art education in secondary schools in Ekiti State. Specifically, this research seeks to understand the extent to which technology has been adopted in art classrooms, the impact it has on students' learning experiences and outcomes.

The problem, therefore, lies in the gap between the potential benefits of technological advancements in enhancing art education and the current state of their implementation in secondary schools in Ekiti State. Addressing this problem is crucial for developing strategies to effectively incorporate technology into art education, thereby improving the quality of art instruction and fostering greater creativity and innovation among students.

**Research Questions**

1. What is the perceive impact of technology on art creation?
2. What are the roles of art in society and culture as related to secondary schools?
3. What are the roles of art in educating the students in secondary schools?
4. What is the relationship between art and technology in secondary schools?
5. What are the uses of art in therapies setting in Ekiti State secondary schools?

**Hypotheses**

1. There is no significant influence of the use of technology in visual arts education on students' artistic skills.
2. There is no significant influence of the use of technology in visual arts education on society and culture as related to secondary schools.
3. There are no significant differences in the use of technology in visual arts education between male and female secondary schools students.
4. There is no significant correlation between access to technological resources and students' creative expression in visual arts.
5. There is no significant influence of the use of technology in visual arts education on therapies setting among secondary school students.

**Methodology**

The study adopted the descriptive research design of survey type. The sample was made up of 100 respondents randomly selected from ten (10) senior secondary schools across the three (3) Senatorial Districts in Ekiti State. The schools comprised of both public and private secondary schools. The instrument for data collection was a self-structured questionnaire tagged "Evolution of Visual Art on Technology (EVAT)" which was validated by two experts in Test and Measurement, and experts in instrument development in the Department of Science Education was consulted for their experienced suggestions. The corrected and validated version of the instruments was used for data collection.

The reliability index of the questionnaire was 0.79 indicating a high reliability, hence suitable for the study. The quantitative data collected for the study was analyzed using both descriptive and inferential statistics. The descriptive statistic of weighted mean score was used to answer the five (5) research questions raised to guide the study. The Chi- square, *t*-test of independent sample and Pearson Product Moment Correlation (PPMC) were used to test the hypotheses formulated for the study at 0.05 level of significance using SPSS version 23.

**Results and Discussion**

This section presents the results of the analysis carried out on the data collected in this study. The presentation was followed with the discussion of the findings from the results.

**Descriptive Analysis**

**Presentation of Respondents' Demographic Information**

**Table 1: Respondents' demographic characteristics**

| Demographic Variable | Categories | Frequency | Percentage |
|---|---|---|---|
| **Gender** | Male | 75 | 75.0 |
| | Female | 25 | 25.0 |
| | **Total** | 100 | 100.0 |
| **Age** | 10 – 12 | 19 | 19.0 |
| | 13 – 15 | 50 | 50.0 |
| | 16 – 18 | 27 | 27.0 |
| | 19 – 21 | 4 | 4.0 |
| | **Total** | 100 | 100.0 |

**Source:** *Researcher's field survey (2024)*

Table 1 shows the demographic characteristics of the respondents sampled in this study. In relation to students' gender, it was shown that 75 respondents representing (75.0%) were male respondents while 25 respondents representing (25.0%) were female respondents. Based on the result, majority of the respondents were male respondents. It was shown that with respect to the age of the respondents, 19 respondents representing (19.0%) were between the age of 10 and 12 years old, 50 respondents representing (50.0%) were between the age of 13 and 15 years old, 27 respondents representing (27.0%) were between the ages of 16 and 18 years old, while 4 respondents representing (4.0%) were between the ages of 19 and 21 years old. The result indicated that most of the respondents were between the ages of 13 – 15 years old.

**Research Question 1**

What is the perceive impact of technology on art creation?

**Table 2: Analysis of the perceived impact of technology on art creation**

| S/N | Items | SA (%) | A (%) | D (%) | SD (%) | $\bar{X}$ | Remark |
|---|---|---|---|---|---|---|---|
| 1. | I believe that technology changed the way artist create art work in your school | 21 (21.0) | 73 (73.0) | 2 (2.0) | 4 (4.0) | 3.11 | Agreed |
| 2. | I am aware that arts forms have been made possible by technology using plastering, using computer to draw, etc. | 37 (37.0) | 38 (38.0) | 20 (20.0) | 5 (5.0) | 3.07 | Agreed |
| 3. | I believe that Tick-tock changed the way artist share their work | 33 (33.0) | 35 (35.0) | 26 (26.0) | 6(6.0) | 2.95 | Agreed |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4. | I believe in digital role like Photoshop and pro-create in art creation | 30 (30.0) | 50 (50.0) | 15 (15.0) | 5 (5.0) | 3.05 | Agreed |
| 5. | My opinion is that technology has affected value of art work and price | 33 (33.0) | 54 (54.0) | 7 (7.0) | 6 (6.0) | 3.14 | Agreed |
| 6. | I agree that technology changed the way art is presented and achieved | 40 (40.0) | 34 (34.0) | 22 (22.0) | 4 (4.0) | 3.10 | Agreed |
| 7. | In my opinion, technology change the relationship between artist and audience | 31 (31.0) | 36 (36.0) | 26 (26.0) | 7 (7.0) | 2.91 | Agreed |
| 8. | I believe that technology affect the role of Galleries and Museum in art | 25 (25.0) | 39 (39.0) | 27 (27.0) | 9 (9.0) | 2.80 | Agreed |
| 9. | In my own opinion, vocational and technology has an impact in the way art is taught and learned | 32 (32.0) | 44 (44.0) | 19 (19.0) | 5 (5.0) | 3.03 | Agreed |
| 10. | I believe that technology affect how students related with art and express themselves creatively | 32 (32.0) | 33 (33.0) | 24 (24.0) | 11 (11.0) | 2.86 | Agreed |

Total mean = **30.02**
Cluster mean = **3.0**

Table 2 showed that the cluster mean of 3.0 indicated that a greater number of respondents agreed that technology has great impact on art creation. The cluster mean of 3.0 is greater than the bench – mark which is 2.5 (that is, 3.0> 2.5). This implies that the technology played an important role in art creation.

In item 1, a total mean score of 3.11 was obtained from the analysis on respondents' believe that technology changed the way artist create art work in their schools. This shows a very significant value of the mean. In item 2, a greater number of respondents agreed that they are aware that arts forms have been made possible by technology using plastering, using computer to draw amongst others, and this resulted to a mean score of 3.07, this shows that it is statistically significant.

Also, in item 3, a total of (68.0%) respondents agreed that Tiktok changed the way artist share their work, while the total number of 32 respondents representing (32.0%) disagreed, total mean scorer of 2.95 was obtained from the analysis. Thus a significant mean score.

In item 4, a total number of 80 respondents representing (80.0%) believed in digital role like Photoshop and pro-create in art creation, and these constituted a mean score of 3.05, which is significant. In item 5, a mean of 3.14 representing a total number 87 (87.0%) respondents who agreed with the assertion that technology has affected value of art work and price. Also, a total of 74 (74.0%) respondents agreed with the assertion that technology had

changed the way art is presented and achieved, with a resulting mean score value of 3.10 which is significant, while 67 (67.0%) of the respondents believed that technology change the relationship between artist and audience, with a mean score of 2.91 which is significant.

In item 8, a mean of 2.80 representing a total number 64 (64.0%) respondents who agreed with the assertion that technology affect the role of Galleries and Museum in art. Also, a total of (76.0%) respondents agreed with the assertion that vocational and technology has an impact in the way art is taught and learned, with a resulting mean score value of 3.03 which is significant, while 65 (65.0%) of the respondents believed that technology affect how students related with art and express themselves creatively, with a mean score of 2.86 which is significant. It can therefore be concluded that there is a significant impact of technology on art creation in Ekiti State secondary schools.

**Research Question 2**

What are the roles of art in society and culture as related to secondary schools?

**Table 3: Analysis of the roles of art in society and culture as related to secondary school**

| S/N | Items | SA (%) | A (%) | D (%) | SD (%) | $\bar{X}$ | Remark |
|---|---|---|---|---|---|---|---|
| 1. | I believe that art education in secondary schools contribute to students sense of identity and belonging | 36 (36.0) | 50 (50.0) | 8 (8.0) | 6 (6.0) | 3.16 | Agreed |
| 2. | I believe that art education promote social justice and university in secondary school | 39 (39.0) | 34 (34.0) | 24 (24.0) | 3 (3.0) | 3.09 | Agreed |
| 3. | I believe that art education in secondary school affect students civic engagement and community involvement | 21 (21.0) | 33 (33.0) | 25 (25.0) | 21 (21.0) | 2.54 | Agreed |
| 4. | I believe that art education promote mental health and well-being in secondary schools | 28 (28.0) | 38 (38.0) | 21 (21.0) | 13 (13.0) | 2.81 | Agreed |
| 5. | In my own opinion, art education will allow us to explore social and cultural impact of art in secondary schools | 31 (31.0) | 41 (41.0) | 23 (23.0) | 5 (5.0) | 2.98 | Agreed |
| 6. | I believe that students gain knowledge and skill through art education in secondary school | 33 (33.0) | 43 (43.0) | 19 (19.0) | 5 (5.0) | 3.04 | Agreed |
| 7. | I believe that art education have effect on students plan | 25 (25.0) | 22 (22.0) | 34 (34.0) | 19 (19.0) | 2.53 | Agreed |

Total mean = **20.15**

Cluster mean = **2.88**

Table 3 showed that the cluster mean of 2.88 indicated that a greater number of respondents agreed that there are significant roles of art in society and culture as related to secondary schools. The cluster mean of 2.88 is greater than the bench – mark which is 2.5 (that is, 2.88> 2.5). This implies that there is a significant role of art in society and culture as related to secondary schools.

In item 1, a total mean score of 3.16 was obtained from the analysis that art education in secondary schools contribute to students' sense of identity and belonging. This shows a very significant value of the mean. In item 2, a greater number of respondents agreed that art education promote social justice and university in secondary school, and this resulted to a mean score of 3.09, this shows that it is statistically significant. Also, in item 3, a total of (54.0%) respondents agreed that art education in secondary school affect students civic engagement and community involvement, while the total number of 46 respondents representing (46.0%) disagreed, total mean scorer of 2.54 was obtained from the analysis. This is also a significant mean score.

In item 4, a total number of 66 respondents representing (66.0%) opined that art education promote mental health and well-being in secondary schools, and these constituted a mean score of 2.81, which is significant. In item 5, a mean of 2.98 representing a total number 72 (72.0%) respondents opined that art education will allow students to explore social and cultural impact of art in secondary schools. Also, a total of 76 (76.0%) respondents agreed that students gain knowledge and skill through art education in secondary school, with a resulting mean score value of 3.04 which is significant, while 47 (47.0%) of the respondents believed that art education have effect on students plan, with a mean score of 2.53 which is significant. It can therefore be concluded that there is significant roles of art in society and culture as related to secondary schools

**Research Question 3**

What are the roles of art in educating the students in secondary schools?

**Table 4: Analysis of the roles of art in educating the students in secondary schools**

| S/N | Items | SA (%) | A (%) | D (%) | SD (%) | $\bar{X}$ | Remark |
|---|---|---|---|---|---|---|---|
| 1. | I believe that art education in secondary school help students to develop their aesthetic | 34 (34.0) | 47 (47.0) | 15 (15.0) | 4 (4.0) | 3.11 | Agreed |
| 2. | Art education help students to develop self-expression and self-awareness | 37 (37.0) | 36 (36.0) | 16 (16.0) | 11 (11.0) | 2.99 | Agreed |
| 3. | Art education in secondary school help students to develop their observational skills and visual literacy | 36 (36.0) | 54 (54.0) | 7 (7.0) | 3 (3.0) | 3.23 | Agreed |
| 4. | I believe that art education in secondary school promote the development of psychomotor skills and | 46 (46.0) | 28 (28.0) | 18 (18.0) | 8 (8.0) | 3.12 | Agreed |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | dexterity | | | | | | |
| 5. | In my own opinion, art education affects students sense of empathy and emotional awareness | 23 (23.0) | 28 (28.0) | 25 (25.0) | 24 (24.02) | 2.50 | Agreed |

Total mean = **14.95**
Cluster mean = **2.99**

Table 4 showed that the cluster mean of 2.99 indicated that a greater number of respondents agreed to the fact that there are significant roles of art in educating the students in secondary schools. The cluster mean of 2.99 is greater than the bench – mark which is 2.5 (that is, 2.99> 2.5). This implies that there are significant roles of art in educating the students in secondary schools.

In item 1, a total mean score of 3.11 was obtained from the analysis which indicated that art education in secondary school help students to develop their aesthetic. This shows a very significant value of the mean. In item 2, a mean score value of 2.99 was obtained which indicated that art education help students to develop self-expression and self-awareness. Also, art education in secondary school help students to develop their observational skills and visual literacy, this is evident from the mean score of 3.23 obtained for item 3.

It was further revealed in item 4 that art education in secondary school promote the development of psychomotor skills and dexterity, with the mean score of 3.12 while most of the respondents opined in item 5 that art education affects students sense of empathy and emotional awareness with a mean value of 2.50.It can therefore be concluded that there are significant roles of art in educating the students in secondary schools.

**Research Question 4**
What is the relationship between art and technology in secondary schools?

**Table 5: Analysis of the relationship between art and technology in secondary schools**

| S/N | Items | SA (%) | A (%) | D (%) | SD (%) | $\bar{X}$ | Remark |
|---|---|---|---|---|---|---|---|
| 1. | The digital technology affect the way art is created | 23 (23.0) | 43 (43.0) | 19 (19.0) | 15 (15.0) | 2.74 | Agreed |
| 2. | I believe that the way art is taught and learn in secondary schools is attractive | 33 (33.0) | 41 (41.0) | 19 (19.0) | 7 (7.0) | 3.00 | Agreed |
| 3. | I believe that technology affects the accessibility of art in secondary schools | 30 (30.0) | 27 (27.0) | 29 (29.0) | 14 (14.0) | 2.73 | Agreed |
| 4. | I believe that technology play the role of promoting interdisciplinary collaboration in art education in secondary schools | 25 (25.0) | 42 (42.0) | 22 (22.0) | 11 (11.0) | 2.81 | Agreed |
| 5. | I believe that technology affects the way students engage with art in | 15 (15.0) | 29 (29.0) | 39 (39.0) | 17 (17.0) | 2.42 | Disagreed |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | secondary schools | | | | | | |
| 6 | In my opinion, technology plays the role of disseminating art education in secondary school | 31 (31.0) | 35 (35.0) | 25 (25.0) | 9 (9.0) | 2.88 | Agreed |
| 7 | I believe that technology affects the way art is used to promote school culture | 26 (26.0) | 30 (30.0) | 27 (27.0) | 17 (17.0) | 2.65 | Agreed |

Total mean = **19.23**
Cluster mean = **2.75**

Table 5 showed that the cluster mean of 2.75 indicated that a greater number of respondents agreed to the fact that there is significant relationship between art and technology in secondary schools. The cluster mean of 2.75 is greater than the bench – mark which is 2.5 (that is, 2.75 > 2.5). This implies that there is significant relationship between art and technology in secondary schools.

In item 1, a total mean score of 2.74 was obtained from the analysis which indicated that digital technology affect the way art is created. This shows a very significant value of the mean. In item 2, a mean score value of 3.00 was obtained which indicated that the way art is taught and learn in secondary schools is attractive. Also, technology affects the accessibility of art in secondary schools, this is apparent from the mean score of 2.73 obtained for item 3.

It was further revealed in item 4 that technology play the role of promoting interdisciplinary collaboration in art education in secondary schools, with the mean score of 2.81. However, in item 5, it was disagreed that technology affects the way students engage with art in secondary schools with mean score of 2.42, but in item 6, it was agreed by most of the respondents 66 (66.0%) that technology plays the role of disseminating art education in secondary school with a mean score of 2.88, while most of the respondents opined in item 7 that technology affects the way art is used to promote school culture, with a mean value of 2.65.It can therefore be concluded that there is significant relationship between art and technology in secondary schools.

**Research Question 5**
What are the uses of art in therapies setting in Ekiti State secondary schools?

**Table 6: Analysis of the uses of art in therapies setting in Ekiti State secondary schools**

| S/N | Items | SA (%) | A (%) | D (%) | SD (%) | $\bar{X}$ | Remark |
|---|---|---|---|---|---|---|---|
| 1. | I believe that art is being used to promote mental health and well-being in secondary schools | 26 (26.0) | 49 (49.0) | 19 (19.0) | 6 (6.0) | 2.95 | Agreed |
| 2. | In my opinion, art is used to address issues such as stress, anxiety and depression in secondary school | 33 (33.0) | 30 (30.0) | 21 (21.0) | 16 (16.0) | 2.80 | Agreed |
| 3. | I believe that art therapy promote self-expression in schools | 28 (28.0) | 45 (45.0) | 17 (17.0) | 10 (10.0) | 2.91 | Agreed |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4. | I believe that art therapy plays the role of promoting social and emotional learning in secondary school | 38 (38.0) | 34 (34.0) | 21 (21.0) | 7 (7.0) | 3.03 | Agreed |
| 5. | I believe that art therapy help to develop emotional resilience and copying skills in secondary schools | 27 (27.0) | 45 (45.0) | 18 (18.0) | 10 (10.0) | 2.89 | Agreed |

Total mean = **14.58**
Cluster mean = **2.92**

Table 6 showed that the cluster mean of 2.92 indicated that a greater number of respondents agreed to the fact that there are significant uses of art in therapies setting in Ekiti State secondary schools. The cluster mean of 2.92 is greater than the bench – mark which is 2.5 (that is, 2.92 > 2.5). This implies that there are significant uses of art in therapies setting in Ekiti State secondary schools.

In item 1, a total mean score of 2.95 was obtained from the analysis which indicated that art is being used to promote mental health and well-being in secondary schools. This shows a very significant value of the mean. In item 2, a mean score value of 2.80 was obtained which indicated that art is used to address issues such as stress, anxiety and depression in secondary school. Also, art therapy promote self-expression in schools, this is obvious from the mean score of 2.91 obtained for item 3.

It was further revealed in item 4 that art therapy plays the role of promoting social and emotional learning in secondary school with a mean score of 3.03, while most of the respondents agreed in item 7 that art therapy help to develop emotional resilience and copying skills in secondary schools, with a mean value of 2.65.It can therefore be concluded that there are significant uses of art in therapies setting in Ekiti State secondary schools.

**Hypotheses Testing**
**Hypothesis 1**
There is no significant influence of the use of technology in visual arts education on students' artistic skills.

**Tables 7: Chi-Square Test analysis of influence of the use of technology in visual arts education on students' artistic skills**

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) | Point Probability |
|---|---|---|---|---|---|---|
| Pearson Chi-Square | 10.073[a] | 3 | .345 | .335 | | |
| Likelihood Ratio | 11.742 | 3 | .228 | .298 | | |
| Fisher's Exact Test | 9.252 | | | .355 | | |
| Linear-by-Linear Association | .337[b] | 1 | .562 | .566 | .304 | .048 |
| N of Valid Cases | 100 | | | | | |

*a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .30.*
*b. The standardized statistic is .581.*

The degree of freedom = 3
The significant value = 0.05
Decision rule:
If the calculated chi-square ($\chi^2$) value is greater than the critical value, the null hypothesis is rejected but if the critical value is greater than the calculated value, the null hypothesis is accepted.

From the above computation in Table 7, null hypothesis is rejected, since the calculated value (.345) is greater than the significant value (0.05) with point probability value of (0.048). Therefore, there is significant influence of the use of technology in visual arts education on students' artistic skills.

**Hypothesis 2**
There is no significant influence of the use of technology in visual arts education on society and culture as related to secondary schools.

**Tables 8: Chi-Square Test analysis of influence of the use of technology in visual arts education on society and culture as related to secondary schools**

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) | Point Probability |
|---|---|---|---|---|---|---|
| Pearson Chi-Square | 8.395[a] | 3 | .495 | .509 | | |
| Likelihood Ratio | 8.268 | 3 | .507 | .556 | | |
| Fisher's Exact Test | 8.210 | | | .516 | .209 | .026 |
| Linear-by-Linear Association | .741[b] | 1 | .389 | .396 | | |
| N of Valid Cases | 100 | | | | | |

*a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is 2.47.*
*b. The standardized statistic is .861.*

The degree of freedom = 3
The significant value = 0.05
Decision rule:
If the calculated chi-square ($\chi^2$) value is greater than the critical value, the null hypothesis is rejected but if the critical value is greater than the calculated value, the null hypothesis is accepted.

From the above computation in Table 8, null hypothesis is rejected, since the calculated value (.495) is greater than the significant value (0.05) with point probability value of (0.026). Therefore, there is significant influence of the use of technology in visual arts education on society and culture as related to secondary schools.

**Hypothesis 3**
There are no significant differences in the use of technology in visual arts education between male and female secondary schools students.

**Table 9: t-test analysis of differences in the use of technology in visual arts education between male and female secondary schools students**

| Group | N | Mean | SD | df | $t_{(cal)}$ | $t_{(tab)}$ | Decision |
|---|---|---|---|---|---|---|---|
| Male | 75 | 2.80 | 1.090 | | | | |
| Female | 25 | 2.84 | 0.624 | 98 | 0.174 | 1.98 | NS |

*P<0.05 level of significance* *NS = Significant*

From table 9 above, the mean score perception of the male respondents (2.80) is less than the mean score of the female respondents (2.84) with a mean difference of (0.04) which is marginal. The measure of variability (standard deviation) has a difference of (0.466). The t-test analysis shows that the calculated value (0.174) is less than the table value (1.98) at 0.05 level of significance. This implies that there is no significant differences in the use of technology in visual arts education between male and female secondary schools students. Hence, the null hypothesis is upheld.

**Hypothesis 4**

There is no significant correlation between access to technological resources and students' creative expression in visual arts.

**Table 10: Correlation between access to technological resources and students' creative expression in visual arts**

**Correlations**

| | | Access to technological resources | Students' creative expression |
|---|---|---|---|
| Access to technological resources | Pearson Correlation | 1 | .153 |
| | Sig. (2-tailed) | | .128 |
| | Sum of Squares and Cross-products | 107.710 | 14.870 |
| | Covariance | 1.088 | .150 |
| | N | 100 | 100 |
| Students' creative expression | Pearson Correlation | .153 | 1 |
| | Sig. (2-tailed) | .128 | |
| | Sum of Squares and Cross-products | 14.870 | 87.390 |
| | Covariance | .150 | .883 |
| | N | 100 | 100 |

***. Correlation is significant at the 0.05 level (2-tailed)*

Table 10 showed the correlation between access to technological resources and students' creative expression in visual arts. The table revealed that the calculated Pearson Correlation Sig. value (.153) which was less than the table value (3.84) obtained for the access to technological resources and students' creative expression in visual arts. The covariance however was (1.088) and (.883) respectively. This indicated that access to technological resources has a positive correlation on students' creative expression in visual arts. Hence, the null hypothesis was not upheld. This implies that there was a significant positive relationship between access to technological resources and students' creative expression in visual arts.

**Hypothesis 5**
There is no significant influence of the use of technology in visual arts education on therapies setting among secondary school students.

**Tables 11: Chi-Square Test analysis of influence of the use of technology in visual arts education on therapies setting among secondary school students**

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) | Point Probability |
|---|---|---|---|---|---|---|
| Pearson Chi-Square | 13.951[a] | 3 | .124 | .121 | | |
| Likelihood Ratio | 15.744 | 3 | .072 | .107 | | |
| Fisher's Exact Test | 13.799 | | | .089 | | |
| Linear-by-Linear Association | .036[b] | 1 | .849 | .896 | .449 | .051 |
| N of Valid Cases | 100 | | | | | |

*a. 9 cells (56.2%) have expected count less than 5. The minimum expected count is .60.*
*b. The standardized statistic is .190.*

The degree of freedom = 3
The significant value = 0.05

Decision rule:
If the calculated chi-square ($\chi^2$) value is greater than the critical value, the null hypothesis is rejected but if the critical value is greater than the calculated value, the null hypothesis is accepted.

From the above computation in Table 11, null hypothesis is rejected, since the calculated value (.124) is greater than the significant value (0.05) with point probability value of (0.051). Therefore, there is significant influence of the use of technology in visual arts education on therapies setting among secondary school students.

**Discussion of Findings**

The findings of the study revealed that there was significant influence of the use of technology in visual arts education on students' artistic skills. The finding support the position of Anderson & Maker (2014) who posited that visual arts education has always been a vital component of secondary school curricula, providing students with opportunities to explore creativity, develop critical thinking skills, and express personal and cultural identities.

Also, it was revealed that there was significant influence of the use of technology in visual arts education on society and culture as related to secondary schools. This finding corroborated the position of Selwyn (2011) who opined that the rise of digital technology offers new tools and platforms that have the potential to revolutionize visual arts education. Technologies such as graphic design software, digital painting tablets, 3D modeling programs, and online art communities are reshaping how art is taught, practiced, and perceived. However, it was revealed that there was no significant differences in the use of technology in visual arts education between male and female secondary schools students.

It was further revealed that there was a significant positive relationship between access to technological resources and students' creative expression in visual arts. The finding of the study is consistent with the position of Nelson (2014) who posited that software applications such as Adobe Photoshop and Illustrator, for example, offer advanced features for creating digital artwork, while online platforms like Instagram and Deviant Art allow

students to share their work with a global audience. These tools not only enhance students' technical skills but also broaden their artistic horizons and increase their exposure to global art trends. Lastly, the inferential analysis of the study revealed that there was significant influence of the use of technology in visual arts education on therapies setting among secondary school students.

**Conclusion**

The empirical research on the evolution of visual arts through technology in secondary schools in Ekiti State reveals significant insights into the transformative impact of technological advancements on art education. The integration of digital tools and resources has enhanced the teaching and learning experience, making art education more interactive, engaging, and accessible. Technological advancements have enabled students to explore diverse artistic techniques, experiment with various mediums, and gain exposure to global art trends and practices. This has broadened their creative horizons and fostered a deeper appreciation for the visual arts.

**Recommendations**

According to the results of the study, it is recommended that government should invest in upgrading technological infrastructure in secondary schools across Ekiti State. Ensure that all schools, regardless of their location, have access to modern digital tools and resources necessary for effective art education. Implementing comprehensive training programs for art teachers to enhance their proficiency in using digital tools and integrating technology into their teaching methods. Continuous professional development should be encouraged to keep teachers updated with the latest technological advancements and pedagogical approaches. Also, Ministry of Education should revise the art education curriculum to incorporate technology-driven art practices and methodologies. Emphasize the importance of digital literacy in the arts and encourage students to explore various digital art forms, including graphic design, animation, and digital painting.

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