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Digital Interactive Learning Method and its Influence on College Art Students' Learning Satisfaction

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Abstract: This study evaluated the effectiveness of digital interactive learning methods in art classes, and the learning satisfaction of college students in Xinyang Normal University (XNU). The study used a descriptive-comparative correlational design and the respondents of the study are 100 students from Xinyang Normal University (XNU). The use of digital interactive learning methods was highly effective according to the teacher respondents. Both students and teachers are highly satisfied in their learning with the use of digital interactive learning methods. The assessment of the effectiveness of digital interactive learning methods does not vary significantly across different levels of sex, age, and year level. Moreover, there is a significant difference in the assessments of both respondents on the effectiveness of virtual learning and overall digital interactive learning method, there is a significant difference in the satisfaction of assessment of the students among different year levels, and the fourth-year students have a significantly higher satisfaction compared to third year students. Furthermore, there is a significant direct relationship between the assessment of video-based learning effectiveness and student satisfaction with generic skills and learning experiences. The assessment of digital interactive learning effectiveness is significantly correlated with overall satisfaction. Additionally, there are direct relationships between game-based learning and satisfaction with teaching, as well as digital interactive learning method and satisfaction with generic skills and learning experiences. However, no significant relationships were observed between other variables.

Keywords: Digital Interactive Learning; Game-based Learning; Generic Skills; Learning Satisfaction; Student Satisfaction.

1. Introduction

The traditional classroom and education model, which is mainly indoctrinated and characterized by teachers' narration, will to some extent erase students' enthusiasm and interest in learning, and it is difficult to establish a harmonious relationship between teachers and students. In addition, the different learning abilities of students in large classes lead to different learning outcomes. Especially in the digital age, students are increasingly not adapted to the monotonous classroom, and heavy homework after class may also cause students to be tired of learning. [1] The new technology provides possibilities for colleges to change the traditional teaching methods, to change the presentation of teaching content, and improve the effectiveness of teaching organization and management, and to change the relationship between teachers and students.[2] Under such a technical background, art education in colleges in China is still in the exploratory stage. As a modern educational technology, digital interactive technology is not mature in the application of art education, so I take this as a research topic. As an art teacher, this research assumes that interactive technology can play an important role in the art classroom, and the correlation between art teaching and the use of interactive technology is studied.

2. Scope and Delimitations of the Study

The scope of this research is to study the effectiveness of digital interactive learning methods in art classes, and the learning satisfaction of college art students in Xinyang Normal University (XNU). Significant differences were determined based on the student-respondents' profiles, and the relationship between digital interactive learning method and art students' satisfaction was ascertained. The research findings helped to develop a model towards enhancement of digital learning approach in art classes of the selected institution.

The research is only limited to art students from the selected institution, and the inclusion and exclusion criteria is that all art student respondents must be 18 years old and above to participate in this study, hence, minors are excluded, must be willing to participant in the study after being briefed about the research. Further, the research also ensure that all respondents are selected from all year levels in Xinyang Normal University (from first year students to fourth year students). Time constraints may be a limitation in the current study because the data will be collected from April to May, 2023. Further limitations can also be based on the strict compliance with the school's acceptable method of research, hence, the research is limited within the bounds of what is acceptable in the research conduct of the school.

3. Research Design

Study used a descriptive comparative correlational research approach, with data gathered through a survey of one hundred students from public and private schools that use digital technology in their classrooms. This design is most appropriate since it attempted to link teacher use of digital technology and the effect of these resources on teachers' discipline and methods in the field of education, as well as its influence in the field of research.[3] A descriptive comparative correlational design describes variables and examine relationship among variables, and compares the assessment on different respondents of the study. A descriptive research is also relevant since it comprises the collecting, processing, and tabulation of data relevant to a present state or trend [4].

4. Results, Interpretation and Discussion

Table 1 and Table 2 below illustrate the demographic profiles of the student respondents and teacher respondents. The demographic characteristics of the study participants are presented in both tables. Table 1 consisted of 100 student respondents, while Table 2 is comprised of 50 teacher respondents.

Table 1. Demographic Profile of the Student Respondents

Category		Frequency1	
Sex			
	Male	53	(53.0)
	Female	47	(47.0)
Age			
	18 – 20 years old	22	(22.0)
	21 – 25 years old	33	(33.0)
	26 – 30 years old	23	(23.0)
	> 30 years old	22	(22.0)
Year level			
	First year	22	(22.0)
	Second year	28	(28.0)
	Third year	26	(26.0)
	Fourth year	24	(24.0)

Table 2. Demographic Profiles of Teacher Respondents

Profiles		Frequency
Sex	Male	53
	Female	47
Age	18 – 20 years old	22
	21 – 25 years old	33
	26 – 30 years old	23
	> 30 years old	22
Year Level	First year	22
	Second year	28
	Third year	26
Highest Educational Attainment	Bachelors	2
	Masters	23
	Doctorate	21
	Post doctorate	4
Length of Service	1 - 3 years	9
	4 - 6 years	17
	7 - 9 years	13
	10 years and above	11
Trainings Attended	1 - 2	12
	3 - 4	18
	5 - 6	15
	7 and above	5

Based on Table 1, a total of 53% were male student respondents while the remaining 47% were female respondents. As to age, a significant number of the respondents were from ages 21-25 years old (33%), followed by respondents aging 26-30 years old (23%), with the least number of students aging from 18-20 years old and more than 30 years old, tying at 22%. As for the year levels of the respondents, a significant number of student respondents were second years (28%), followed by third years (26%), fourth years (24%) and first years (22%).

For Table 2, a significant number of teacher respondents (46%) holds a Master's degree, followed by those who already have their Doctorate degree (42%), 8% holding a Post-Doctorate degree, and 2% holding a Bachelor's degree. In terms of length of service, a significant number of respondents (34%) are teaching around 4-6 years, followed by those who are in the service for around 7-9 years, with 22% of them teaching for ten years and above, and with 18% teaching for around 1-3 years. As for the number of training attended, 36% of the respondents attended 3-4 trainings, followed by 30% who attended 5-6 training, then 24% attending 1-2 training, and only 10% attended 7 training and above.

As for assessment in relation to digital interactive learning methods, Tboth respondent groups agree that they receive useful feedback for their assessment, the assessment method suits the criteria for art classes, and the assessment objectives are clearly mapped out for the student's guidance.

On the other hand, they do not agree on whether the digital learning method is effective in testing student's knowledge, on awareness of being assessed, or on whether there is room for contest with the teacher in relation to error or omission in assessment result.

In sum, the students are highly satisfied (M=2.59; SD=0.41) when it comes to assessment of learning satisfaction while the teachers are moderately satisfied (M=2.40; SD=0.48).

Summarize the evaluation indicators of learning satisfaction for art students. Students are highly satisfied in terms of assessment and generic skills and learning experiences, while moderately satisfied on teaching. Meanwhile, the teachers are highly satisfied on their generic skills and learning experiences and only moderately satisfied on their assessment and teaching.

Notwithstanding, both respondents groups are highly satisfied insofar as learning satisfaction is concerned. According to the table, students express high levels of satisfaction regarding assessment, generic skills, and learning experiences.

However, their satisfaction level with teaching is moderate. On the other hand, the teachers' perspective shows that they are highly satisfied with their own generic skills and learning experiences. However, their satisfaction level is only moderate when it comes to assessment and teaching.

Despite the differences in satisfaction levels between students and teachers regarding assessment and teaching, both groups exhibit high levels of overall learning satisfaction. This analysis suggests that students are generally content with the assessment methods used in their art education, as well as the development of generic skills and their learning experiences. However, the moderate satisfaction with teaching implies that there may be areas for improvement in instructional methods or teacher-student interactions.

From the teachers' viewpoint, the high satisfaction with their own generic skills and learning experiences indicates that they feel competent and engaged in their professional

development. However, the moderate satisfaction with assessment and teaching suggests the need for further attention to these aspects of their instructional practices.

Overall, the findings indicate a generally positive learning satisfaction among both art students and teachers. However, the identified areas of moderate satisfaction suggest potential areas for improvement in teaching practices and assessment methods to further enhance the overall learning experience for students. Future research could explore specific factors contributing to the differences in satisfaction levels and identify strategies to address the areas of moderate satisfaction for both students and teachers.

there is a significant direct relationship between the assessment on the effectiveness of video-based learning and the students satisfaction in terms of generic skills and learning experiences (0.0303). This indicates that as the effectiveness of video-based learning assessments increases, students' satisfaction with generic skills and learning experiences tends to increase as well. There are no significant relationships between other variables.

5. Conclusion

Based on the findings, the following conclusions are drawn.

The use of digital interactive learning methods was highly effective according to the teacher respondents.

Both students and teachers are highly satisfied in their learning with the use of digital interactive learning methods.

The assessment of the effectiveness of digital interactive learning methods does not vary significantly across different levels of sex, age, and year level.

There is a significant difference in the assessments of both respondents on the effectiveness of virtual learning and overall digital interactive learning method.

There is a significant difference in the satisfaction of assessment among different year levels. The fourth year students have a significantly higher satisfaction compared to third year students.

There is a significant direct relationship between the assessment of video-based learning effectiveness and student satisfaction with generic skills and learning experiences.

The assessment of digital interactive learning effectiveness is significantly correlated with overall satisfaction. Additionally, there are direct relationships between game-based learning and satisfaction with teaching, as well as digital interactive learning method and satisfaction with generic skills and learning experiences. However, no significant relationships were observed between other variables.

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