Prestieesci Research Review

ESPLORING TRENDS IN PIANO EDUCATION AND MUSIC LITERACY ACROSS CHINA FROM 20TH TO 21ST CENTURY, WITH CASE STUDY OF GUANG XI PROVINCE

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ABSTRACT

The last several years have shown that gamification in learning organization is become a vital component of both conventional schooling and distance education throughout all levels of academic study. Because of the beneficial benefits that successful gamification tactics have on the motivation of students or the effectiveness of the learning process, more and more schools are adopting and applying these strategies. This article provides a game-based teaching-learning environment, a method for integrating digital games into the learning-teaching process. The environment is built online learning of accounting competences, with a focus on the experiential learning approach. Because gamification is becoming increasingly popular at this level of education, the article's game-based virtual classroom has been utilized effectively in higher education for various years, and the number of students actively participating in the classroom has been growing semester after semester.

KEYWORDS: Virtual classroom management, learning management, E- learning, Gamified teaching- learning, Learning environment, Gamified classroom management.

INTRODUCTION

Students may apply for admission online, enroll in VLE courses after acceptance, access a full course, take examinations, and engage with instructors and classmates through the VLE. Administrators, instructors, and students use VLE tools. VLE helps virtual universities. The VLE incorporates university administration components. VLE handles student registration, grade management, administrative report generating, and more. It enables VLE class enrollment. The VLE lets students watch lectures and study for every course subject. The professor receives exam responses automatically. The VLE

communications hub features email, chat, and multimedia teleconferencing. It also provides professors with the resources and instructions to create VLE course content. It also covers a professor's daily tasks when the course is available for students. New technologies have generated a demand for interactive content that maximiser its potential. Serious games, often known as educational games, are video games with interactive apps that offer both fun and instruction in fields like health, marketing, education, etc. This study examines effective serious games & their effects on learning, tutoring also as key to steering the learning process, and what skills and talents may be gained from such games. At a time of financial, economic, and social crisis, people must be ready to face the future and align their ideals with society's. Serious games are ideal for attaining these goals and conveying material and values effectively (Behatia, 2016). Survival, fresh knowledge, and human tradition depend on education. It creates prosperity. Education is essential to achieving peace, freedom, and social justice as humanity faces numerous future problems. Education is one of the main ways to promote a deeper and more harmonious type of human growth and minimise poverty, marginalisation, ignorance, oppression, and conflict. Education is growth from childhood through adulthood. Lifelong. The child's education includes all they learn at school, in the library, playground, workshop, or elsewhere. Education teaches youngsters about themselves, others, and fundamental information. Education increases knowledge, skills, and attitudes, improving efficiency. Doctors, engineers, scientists, nurses, and teachers grow as education rises from elementary to secondary to upper secondary to collegiate. Improved human and natural resources boost economic growth.

Virtual groups and communication technologies have long been a worry. Despite decades of study, how to structure virtual classroom groups (VLGs) for improve participation and efficacy is still unclear. This study examine research on successful teaching and learning for virtual learning groups, concentrating on important theoretical views on interactivity of virtual communication and their effects on virtual group interactions and effectiveness. virtual groups and finds literary conflicts. It finishes with suggestions for developing a student-satisfying, deep-learning environment.

BACKGROUND OF THE STUDY

The very engaging and alluring character of video games is used in educational games to increase participation and motivation among students. Brain areas involved with attention & arousal may explain the potential capacity of kids’ software to enhance learning, according to long-standing research on the psychological and cognitive financial rewards that are triggered by video games. Lamb classifies instructional video games into three broad groups. First, there are educational simulations, which are 2D interactive virtual environments meant to mimic the real world; second, there are serious games, which are 3D virtual games meant to train broad skills using real-world

examples; and third, there are serious educational games, that are similar to serious games but incorporate a distinguishable pedagogical method of delivering didactic content. Overall, the empirical research in this field suggests that the use of educational games has a favorable influence on learning and leads to stronger cognitive advances in the fields of medicine and the natural sciences. In the most recent meta-analysis that looked at how well different types of educational games promoted learning, researchers tried to tease out whether or not the results varied depending on the game's genre. The quantitative analysis of 46 empirical research found that the use of educational games considerably increased learning outcomes; however, this impact varied with game type, game dimension, and learning environment. In particular, although 2D & mix educational games did not show a statistically significant influence on learning outcomes, 3D educational games did. When evaluating learning outcomes of simulator types, the impact size of serious educational games was much larger than that of educational simulations or serious games (Gorman, 2019).

Educational games for use in junior high (grades 9–12) were shown to have a moderate impact on learning outcomes, while those used in junior high were found to have a minimal impact on learning outcomes (grades 6 through 8). According to the theory that more practice with a given talent would lead to better performance, the most effective educational games were those that directly addressed the skill being learned. Perhaps of more importance, however, is the extent to which these abilities can be used in other contexts. There are two major applications to education that emerge from this meta-analysis. Before everything else, a teacher should think carefully about the specific instructional game they want to use. These findings lend credence to the idea that determining the pedagogical components for serious educational games before introducing them into the classroom is crucial for optimizing the learning advantages. Secondly, it's possible that there are crucial developmental concerns for selecting the optimal time to use these educational gaming treatments. Notably, the learning benefits of educational games employed in middle school tend to be greater than those of high school, which may speak to the diversification of students' educational requirements as they go on to education (Gedera, 2014).

LITERATURE REVIEW

Incontestably, the value of educational games as a complement to conventional classroom instruction is undeniable. discussed how the rapid diffusion of increasingly sophisticated technological advances into every aspect of society is causing profound shifts in the ways in which work and where work; the ways in which individuals, groups, and nations view and define themselves; and the ways in which educational systems should be structured. show how educational PC games and other forms of edutainment came to be considered as a helpful ally in the quest to improve educational outcomes,

thanks to their dual ability to teach and amuse. Recognizing and categorising games with potential educational value is more difficult than it seems.

There are some who regard them as discrete categories, while others who see a continuous range.

emphasised the importance of games as educational tools, as they may serve to reinforce key teaching concepts and are shown to be effective in helping students build foundational cognitive skills. The achievement difference between fast and slow students may be narrowed via the use of games, which also plays a unique role in boosting students' confidence. Regardless, there is a correlation between the degree to which learning theories are implemented successfully in higher education and student outcomes. A major tenet of constructivist pedagogy in the field of computer science education is the expectation that, given the right conditions, students may learn to solve problems and solve problems independently. claimed that settling and osmosis help students construct new knowledge from their experiences. In reality, osmosis is the process of incorporating newly acquired knowledge into an existing framework, while settling is the process of adapting to this new information. For example, researchers have discovered that knowledge is acquired in a circular fashion: first, new knowledge is built upon prior learning, and then this knowledge becomes the foundation for subsequent growth. Knowledge is also created in the mind by reflecting on past experience and new discoveries. When designing an educational game, it is essential to first consider the players' desire to learn (Ya Ni, 2012).

More features be added to an online virtual learning environment, enabling students to engage with the course materials and their peers in more meaningful ways. Specifically, many digital structures it be created to represent Coventry University. In addition, beginning with "Physics for Computer Graphics," a second-year computer science module, to be transferred into the system. Finally, an online, large-scale assessment study it be conducted to determine how well the online, virtual learning environment promotes learning (Anderson, 2010). After using the games, most students have improved their abilities in areas such as sustainability, team spirit, solidarity, advancement, creativity, problem-solving, constant improvement, power efficiency, mathematical specificity, initiative, goal-attainment, result-orientation, flexibility, & working with the environment, as determined by the Game of Island and an ordinary least squares model. This is because, as shown by the econometric model's findings, gaming has been a productive contributor to the educational process (Walker, 2017).

CONSEPTUAL FRAMEWORK

RESEARCH METHODOLOGY

The goal of quantitative research is to find statistically significant relationships between variables by collecting numerical data on those variables and feeding it into statistical models. Quantitative studies aim to get a more in-depth understanding of society. Researchers often use quantitative methods when examining phenomena with a personal effect. Quantitative studies provide hard data in the form of tables and graphs. Quantitative study relies heavily on numerical data, which necessitates a methodical strategy to collecting and analysing the data.

Sampling: Convenient sampling technique to be applied for the study. The subjects in this study 450 school virtual classrooms.

Data and Measurement: Primary data for the research study was collected through questionnaire survey. The questionnaire was

divided into two parts – (A) Demographic information (B) Factor responses in 5-point Likert Scale for both the online and non-online channels. Secondary data was collected from multiple sources, primarily internet resources.

Statistical Software: MS-Excel and SPSS 24 was used for Statistical analysis.

Statistical Tools: Descriptive analysis was applied to understand the basic nature of the data. Validity and reliability of the data was tested through Cronbach alpha, the researcher shall apply logistic regression model, and ANOVA.

RESULTS

A total of 550 questionnaires were distributed to the respondents. Out of this number 485 sets of the questionnaire were returned and 472 questionnaires were analysed using the Statistical Package for social science (SPSS version 25.0) software.

Factor Analysis:

Confirming the latent component structure of a collection of measurement items is a common utilisation Factor Analysis (FA). The scores on the observable (or measured) variables are thought to be caused by latent (or unobserved) factors. Accuracy analysis (FA) is a model-based method. Its focus is on the modelling of causal pathways between observed phenomena, unobserved causes, and measurement error.

The data's suitability for factor analysis may be tested using the Kaiser-Meyer-Olkin (KMO) Method. Each model variable and the whole model are evaluated to see whether they were adequately sampled. The statistics measure the potential shared variation among many variables. In general, the smaller the percentage, the better the data was suitable for factor analysis.

KMO gives back numbers between 0 & 1. If the KMO value is between 0.8 and 1, then the sampling is considered to be sufficient.

If the KMO is less than 0.6, then the sampling is insufficient and corrective action is required. Some writers use a number of 0.5 for this, thus between 0.5 and 0.6, you'll have to apply your best judgement.

• KMO Near 0 indicates that the total of correlations is small relative to the size of the partial correlations. To rephrase, extensive correlations pose a serious challenge to component analysis.

Kaiser's cutoffs for acceptability are as follows:

Kaiser's cutoffs for acceptability are as follows:

A dismal 0.050 to 0.059.

• 0.60 – 0.69 below-average

Typical range for a middle grade: 0.70–0.79.

Having a quality point value between 0.80 and 0.89.

The range from 0.90 to 1.00 is really stunning.

Table 1: KMO and Bartlett's Test[a]

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.880
Bartlett's Test of Sphericity	**Approx. Chi-Square**	325.968
	df	190
	Sig.	.000

The scree plot graphs the eigenvalue against the component number, the values in the first two columns of the table immediately above. From the third component on, the line is almost flat, meaning each successive component is accounting for smaller and smaller amounts of the total variance. In general, only those principal components are kept whose eigenvalues are greater than 1. Components with an eigenvalue of less than 1 account for less variance than did the original variable (which had a variance of 1), and so are of little use.

The first step of EFA is to check the suitability of data for performing factor analysis. In this regard, Kaiser recommended that the KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy coefficient value should be greater than 0.5 as a bare minimum for performing factor analysis. The KMO value of the data used for this study is .880. Furthermore, Bartlett's test of Sphericity derived the significance level as 0.00.

Test for Hypothesis

The term "virtual classroom" refers to the use of video conferencing technology to bring together teachers and students for collaborative, online instruction. Virtual classrooms vary from standard video conferencing in that they include a number of useful features that are especially well-suited to the educational setting. An online classroom provides a safe and stimulating learning environment for students to communicate and learn from one another. The benefits of virtual classrooms, however, go well beyond those of a traditional lecture hall. Teachers get access to the classroom in advance of class to set up and distribute materials. Both the readings and the recording of the class may be accessed by both teachers and students after the event has concluded. Any Internet-enabled gadget is a potential entry point for participants into virtual classroom platforms. Participants, no matter where they may be physically located, are able to take advantage of this kind of adaptability and enjoy the material.

Virtual classroom software also helps teachers keep tabs on how their students are doing. Teachers have access to information like student participation and attendance. Participants' progress may be monitored using online surveys and analytics, problem areas can be pinpointed, and visual aids can be used to aid in the learning of tough material. In the end, many online classroom systems may be included into an already existing learning management system at the institution or business (LMS). By allowing the LMS and the virtual classroom system to talk to one another, LTI-enabled platforms create something larger than the sum of their parts. The concept that different individuals have various learning styles was, for a long time, held exclusively by the most perceptive teachers. As a method of teaching, it was unquestionably rejected. Yet, it gained traction in the 1960s. Since then, the idea of different learning styles has had an impact on classroom practices. And it was ground-breaking in that it led to the development of niche educational facilities like arts academies and technology academies.

1. Visual 2. Auditory 3. Verbal 4. Kinaesthetic 5. Logical 6. Social 7. Solitary

In this study, the result is significant which reaches significance with a p-value of .000 (which is less than the .05 alpha level). This means the "H1: There is a significant relationship between appeal to different learning styles" is accepted and the null hypothesis is rejected.

H1: “There is a significant relationship between appeal to different learning styles and learning environment or Virtual classroom.”

H01: “There is no significant relationship between appeal to different learning styles and learning environment or Virtual classroom.”

Table 2: ANOVA test (H_1)

ANOVA					
Sum					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	620.320	242	4382.725	86.935	.000
Within Groups	138.590	406	16.861		
Total	758.910	648			

In this study, the result is significant. The value of F is 86.935, which reaches significance with a p-value of .000 (which is less than the .05 alpha level). This means the H1: “There is a significant relationship between appeal to different learning styles and learning environment or Virtual classroom.” is accepted and the null hypothesis is rejected.

CONCLUSION

I looked into the e-learning management system for accounting courses to learn more about the technological and pedagogical-methodological possibilities of combining learning and gaming ("how learning might become a game"). It doesn't imply we need to rethink how we teach accounting, but it is a reminder that the widespread use of ICT has unleashed tremendous potential that should be applied throughout the scientific enterprise, including in the classroom. Not the end of conventional schooling, but rather a focus on the difficulty and expanding usage of digital games or gamified classroom (lectures, classroom, books, assignments). This strategy calls for a thoughtful incorporation of virtual and digital resources into education, as well as an examination of how such phenomena may affect future pedagogical fashions and techniques. Teachers and students must have faith that educational games could indeed teach any topic, including law, History, chemistry sociology, or military-technical information, and also that game-based teaching can effectively equip professionals with knowledge & attitudes society expects in order to use digital games, game-based learning effectively. Several mentalities are needed from online educators in order to

construct an effective learning environment. Living learning environments are ideal for teaching students how to learn, work independently, play, live in community, interact with others, or think collectively. In addition, it has to foster the development of cutting-edge expert abilities. The ideal classroom setting might finally be achieved thanks to the availability of up-to-date information and communication technology resources. Given these factors, "game-based learning" is now a realistic option.

LIMITATION

Quantitative methods rely on mathematical models, equations, and other mathematical expressions; these methods are based on a set of assumptions. It's possible that the following assumptions only apply to the situations described. If this warning was heeded, the wrong use of quantitative methods might have disastrous results. Quantitative methods may be expensive since they often need the assistance of specialists and only use quantitative methods to a limited extent. The precision of the answer obtained using quantitative methods may be diminished by pitfalls such as a lack of data, inconsistent definitions, the selection of an inappropriate sample, the selection of an inappropriate procedure, inappropriate comparisons, or inappropriate presentations. As a consequence, they have reason to be concerned about the potential bias introduced by our methodology. To further understand the capacity development model, more research was needed that incorporates secondary data. Researchers are asked to do more study to verify the findings and investigate the linkages in greater depth.

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