

Evaluation of the 3PD model Implementation of an Online Role-playing Game in Music History

Abstract

The 3PD model used as a guide to the design development and implementation of an online music history utilizing role-playing games will be evaluated. This paper will begin with a description of the 3PD model followed by a scenario overview of a hypothetical nature and assumptions for the course. An account of the design and implementation process and closing remarks for the evaluation will also be included.

Three-Phase Design (3PD) Model

The 3PD model is, “an enhancement to the traditional instructional design process focuses on the creation of functional course delivery components, with evaluation and improvement activities integrated with scaffolding (support) for the teacher and learners to provide a dynamic teaching and learning environment in which resources or strategies can be developed or modified during the actual delivery stage” (Sims & Jones, 2003, p. 8). The dynamic process requires ongoing communication with the support team for best implementation. As illustrated in Figure 1, the 3PD model team under each iteration phase comprises of the academic person (A), designer (D), and educational designer (ED) has a focus on developing successful online projects. The ultimate goal is for this model is to enable the academic while attending to content maintenance, to become less dependent on the developer and educational designer over a period of time, hence becoming an independent designer and developer (Sims & Jones 2002).

Three-phase Design (3PD) Model

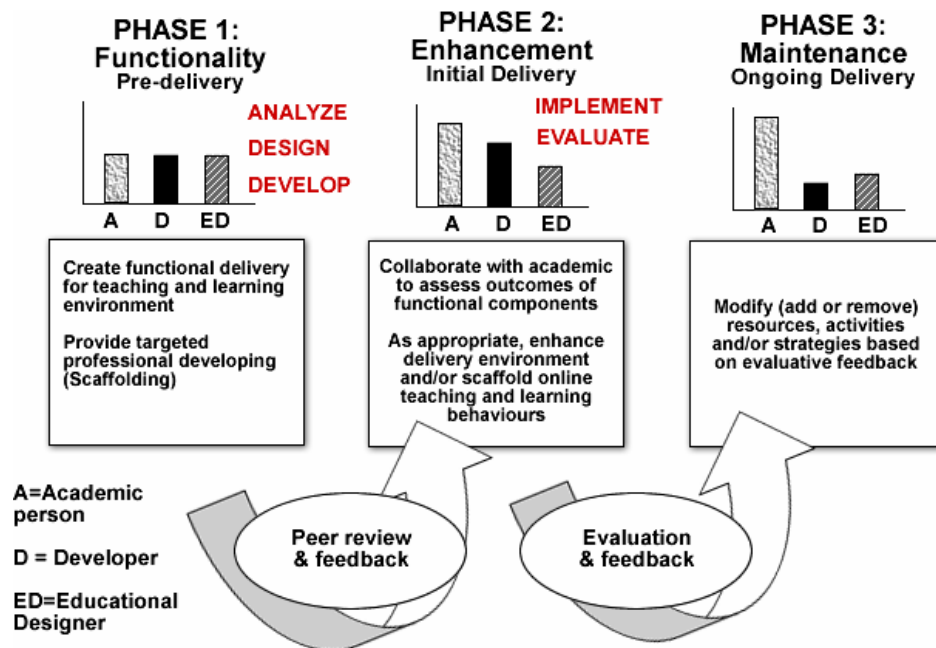


Figure 1. Three-phase Design Model (source from Sims & Jones, 2002. p. 4).

The 3PD model bases on the assumption that the design development is for a non-traditional setting but an online collaborative environment (Sims & Jones, 2003). The model proposes four critical factors. The first stated by Sims and Jones (2002), “the instructional design development process must align with institutional expectation, contemporary pedagogies as well as available resources and skills” (p. 3). Technology has indeed open doors to a variety of delivery options, hence does affect the approaches of online course delivery and teaching methods.

The next factor relates to the academic professional development. New instructors with a lack of online teaching experience will need on going support through scaffolding processes. Scaffolding is a process where the instructor and learners can learn new concepts about the online environment through the support team. Herrington and Oliver (2001) stated that because of the rapid implementation of learning management systems, increase growth of online learning as well as learner-centered environments, this has caused an increased need for scaffolding processes (as cited in Sims & Jones, 2002).

The third factor refers to the approach of team-based work (see Figure 2) where communication and understanding among team members takes place during the development process reinforcing group collaboration (Sims & Jones, 2002). With the ongoing growth of information, knowledge sharing through communication and collaboration plays an important role. Finally, the last factor involves incorporation of scaffolding support units for both academic instructors and staff where skills learned can help ensure success in confronting new challenging and learning paradigms (Sims & Jones, 2002).

The 3PD model comprises of 3 phases (see Figure 1). Phase 1 known as pre-delivery mode involves the preparation of online teaching components. This includes planning teaching and learning strategies (learner-centered, experiential or situated), learning outcomes, lesson materials and resources. Each member of the team has specific roles (Sims & Jones, 2002).

Phase two, the enhancement mode is the delivery phase. During the delivery process, ongoing feedbacks and evaluation permits the opportunity for immediate enhancements to the learning environment, hence creating a scaffolding environment where participants can learn about the new processes. With the support through collaboration and communication from other team members including users (learners), the instructor gets to improve the learning environment in a proactive way (Sims, Dobbs & Hand, 2002). This is a great advantage of the proactive evaluation process because it can help take care of immediate concerns or problems while learning from the situation.

The educational designer is the major player in the development team while faculty and learners make up the other groups respectively. The educational designer (ED) is also responsible for giving educational and curriculum design guidance and advice and may have other managerial responsibilities. Prior entering into the third phase, the team prescribes changes and enhancements for subsequent delivery. Phase 3 then begins its maintenance mode with ongoing support and training that takes place over a long time where quality assurance is the key focus (Sims & Jones, 2003).

3PD Team model

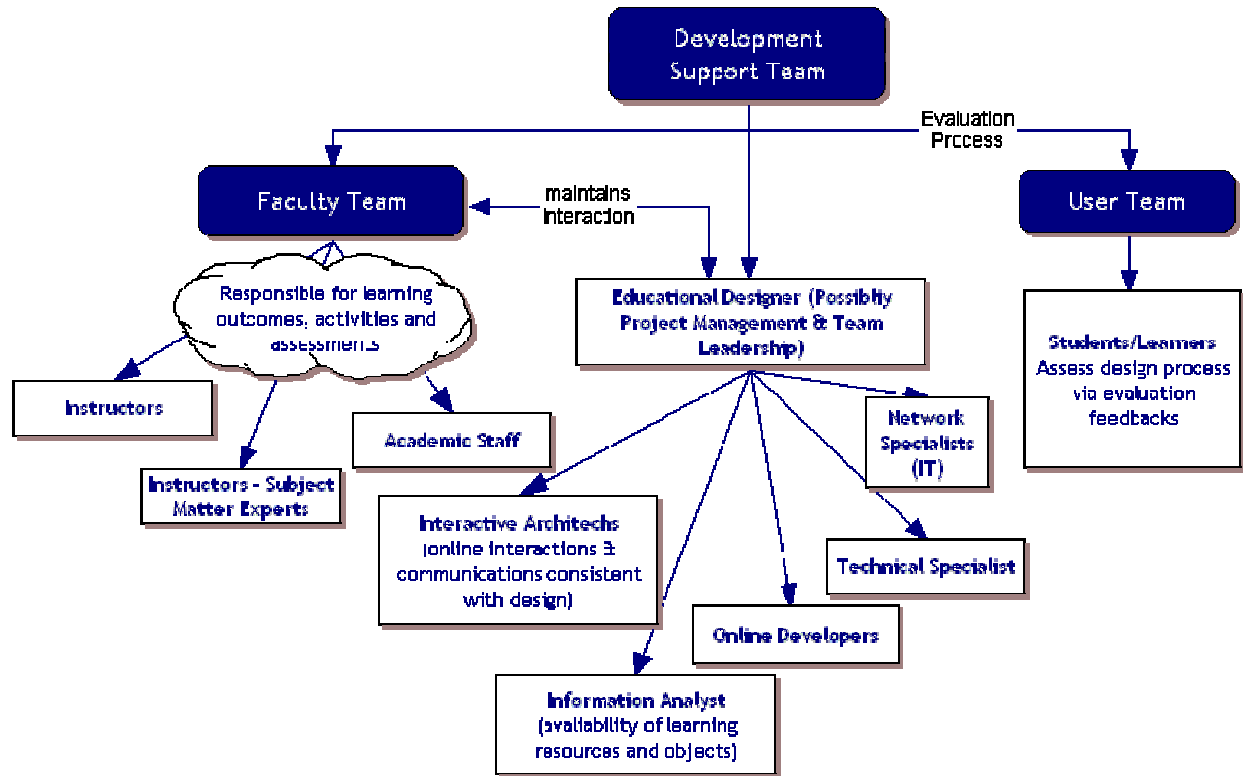


Figure 2. 3PD Team Responsibilities (source from Sims & Jones, 2003).

RPG Scenario Overview

The implementation of an online role-playing game (RPG) will be used as part of an online course material and resource for teaching music history. The RPG module designed for the first time will constitute the lecture material with learning objectives and teaching strategies where the goal of the online course is to provide a more interactive and engaging environment. The game will be highly interactive which contains a component of lecture material (video and audio) teaching elements of music history. Next, it will have a game section built on the constructs of the music history lesson. Learners are required to complete all stages and levels for the game as part of the assignment.

The Process

The design, development and implementation of an online role-playing game focusing on teaching and delivery of a music history utilizing the 3PD model requires of both game designers and instructional designers working close together. The greatest challenge in implementing the online course using the 3PD model is the time, effort and expertise required in the initial preparation of the RPG game. The 3PD, a team-based approach focuses on the project (course design) and production of resources supports and works well in the development of RPG games.

In Phase 1 of the 3PD model, the preparation of functional components for the instructional RPG game, the support and technical team will specifically comprise of game developers (including programmers), 2D and 3D graphic artists and multimedia (video and audio) designers, subject matter expert (SME) in music history. Instructional designers and game designers have different functions where they need to work cohesively to understand and learn from each other's roles. Game designers can learn from educators as well. Instructional designers (including academics) are normally concerned with teaching strategies with the ultimate goal of achieving learning objectives. Meanwhile, in the world of game design, Salen and Zimmerman (2004) states that the fundamentals include,

“...understanding design, systems and interactivity, as well as player choices, action and outcome. They include a study of rule-making and rule-breaking, complexity and emergence, game experience, game representation and social game interaction. They include the powerful connection between the rules of a game and the play that rules engender, the pleasure games invoke, the meanings they construct, the ideologies they embody and the stories they tell” (p. 6)

There are many other factors involved in designing RPG games. By definition, role-playing games is a computer game genre where a player takes a form of a single or team of characters. The players have the ability to control the environment with given skills (Aldrich, 2004). RPG can be used effectively for developing social skills and empathy (taking on the role of another person perspective or experiences). The player must strategically utilize given resources to solve problems in a given scenario (Alessi & Trollip, 2001). There are many types of role-playing scenarios. Applied to a history context the player takes on the role of the realities of life during that period (Smaldino, Rusell, Heinrich, & Molenda, 2005). For example in reference to the music history course, learners can take on the role characters of music composers encountering adventurous episodes during the different levels of expedition of a certain musical era. On the other hand, role-playing games can also be complicating and inaccessible for a non-experienced user. For instance, changing scenes and modifiable abilities can be quite confusing (Smaldino, Rusell, Heinrich, & Molenda, 2005). Hence, the designers need to consider and prepare for such concerns.

During the design process, the team of designers, programmers and game developers need to work with the subject matter experts (SME) to decide the type of role playing game, and then proceed with the storyboarding process, design characters and scenes, write plots and narratives, create game rules and strategies, and decide on the type of interactivity that aligns with the lessons and course objectives. As mentioned earlier, the various factors in RPG design is complex. The whole design and development process can take a long time because of the high demands of the design and programming for the module. Hence, it is very important that ongoing communication and collaboration between technology designers (including game develops) and

academic staff. The concept of team building strategies (shared understanding and teamwork) of the 3PD model definitely offers the supporting opportunity.

One of the goals for the 3PD model during team play is targeted for members to learn new pedagogical and technical skills (Schankman, 2004). Game-based learning is one of the latest developments for online learning, and is also considered as a “contemporary pedagogy” for online learning. Squire (2005) stated that from 2002 to 2004, there has been a veritable explosion in using games-based methodologies for learning. Over the past few years, research and study organizations have emerged exploring innovative approaches using games for teaching. The academic team has a great opportunity to learn about game design and also as an added component for online teaching strategies while the team consisting of game developers who support and offer ideas on game design on the other hand are also able to learn about the different pedagogical approaches on creating games specifically for an educational environment.

The next design step involves the process of evaluation. A significant amount of time and effort must be spent on user analysis, design testing and revision in the design of educational games (Alessi & Trollip, 2001). The emphasis for continuous proactive evaluation process and maintenance of the 3PD model (Phase 2 & 3) can help address quality assurance for the RPG module. For example, evaluation concerns may include the following, interface design for navigation and interactivity with the module content as well as effectiveness of help system in relation to learning goals and outcomes. Feedback from both players (learners) and instructors may be applied for subsequent revisions, hence improving the system for the next iteration cycle.

Final Evaluation Summary

Based on above discussion on the evaluation of the 3PD model, it appears that the use of the model as a design guide for the online music history course utilizing RPG is an effective and

practical approach. This is due to several factors. First, the implementation of the music history course utilizing role-playing games is a new pedagogical approach for learning. Next, the course and game building complexities require a variety of expertise skills. Both technical and academic team, during all three phases can significantly contribute to the pool of knowledge and skills, hence learning productively from one another. Finally, the objectives from the scaffolding processes can also provide active and valuable support during the course process.

The 3PD model used as a guide to the design, development and implementation processes of an online role-playing game for a music history course as the topic was evaluated. The model was found effective and practical for the course implementation.

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