Michaela Mabe Challenge #4 2/13/23 EDCI 60002b Spring '23	
SUPRA-BADGE:	Design and Development
SUB-BADGE:	Design Instructional Interventions
CHALLENGE:	Identify instructional strategies that align with instructional goals and anticipated learning outcomes
ARTIFACT:	Case Study in EDCI 672/Design Documents in EDCI 572
CRITERIA:	**Criteria for successful completion of this challenge:** Evidence of utilizing the best instructional strategies (scaffolding, modeling, cooperative learning, case studies, service learning, etc.) based on the instructional goals and learning outcomes of a project. **Reflection must address:** How you determined the instructional strategies based on the instructional goals for the project.

Competency and artifact identification

My **Paul Lindley Case Study from EDCI 672 and the Design Documents from EDCI 572** provide the evidence for the sub-badge, <u>Design Instructional Interventions</u>, and the challenge, "Identify instructional strategies that align with instructional goals and anticipated learning outcomes". This artifact provides evidence that I can take the learning outcomes and objectives from a case study and develop learning strategies to help the stakeholders reach the desired outcome.

Description of how the artifact supports the competency

I decided to use the Paul Lindley Case Study from EDCI 672 because it shows that I am able to analyze the information from an instructional design case study and create a list of design challenges, prioritize them, and come up with unique solutions using different instructional strategies. In this case study, I suggested that the stakeholders utilize either the Dick and Carey method of evaluation to help them narrow the scope of the project and product or create an online learning module designed alongside a game that already existed so they can focus on incorporating more instructional strategies such as modeling and role play and include needed components such as assessments. The desired learning outcome that the stakeholders wanted was to create a paper-based video game design that can engage students and create a meaningful change in teaching and learning about sensitive and controversial issues. The two solutions I suggested in the paper are both ways for the instructional designers to complete this objective for the client.

I also wanted to add the design documents from EDCI 572 because I began the project by completing an instructional goal analysis for the project and that's how I created the whole project with the design documents. Through creating the goal analysis, I was able to create a design evaluation chart on page #19 which give a goal, performance objectives, and analysis that all align and move toward the main instructional goals of the project.

Competency alignment with prior knowledge and experience

I have had some prior knowledge in using instructional strategies to achieve instructional goals and learning outcomes in my middle school special education classroom. I constantly have to think outside of the box and look up new strategies to help my students learn and retain information. Specifically for a solar system lesson I just worked with my students on a few weeks ago, I co-planned and co-taught it with the general education teacher and we incorporated strategies such as collaboration, kinesthetic learning, QFTs (question formation technique), group work, modeling, and a reflection to make sure that my students and hers were meeting the learning goal and outcome of being able to name the planets in the solar system and create a project to show us and the class that they know the information. I also use this for daily lessons with inquiry strategies such as a wonder wall, choice board, experiments, and questioning techniques for all of the core subjects to help the students learn and retain the content we work on.

Reflection on experiences

Overall, this challenge has been a great way to reflect on the ways that I incorporate instructional strategies in my instructional design coursework and in my day-to-day job. It is important to utilize different strategies to ensure the learner's needs, goals, and objectives are met, so it was interesting to dive into how I do that now and how I can do it even better. I will continue to find and implement different instructional strategies in my classroom and I am excited to see what I can incorporate into my instructional design work. My goal is to continue to research effective strategies utilizing different types of technology that way I can use them for both teaching and ID. One instructional strategy that I am looking into currently is the use of AR/VR utilizing the Clevertouvh I have in my classroom to help my students understand different types of content.

Michaela Mabe

EDCI 672

Fall 2022

Paul Lindley Case Study Analysis

Looking at the Paul Lindley case, there are multiple different categories of stakeholders. Starting off, we have Paul. Paul is the main instructional designer and a leader of a group of graduate students from Walker University. Next, we have the graduate students. The graduate student group consists of Kevin Elkin, Jamie Tolliver, Linda Grimes, and Bo Chen, and they are the designers. Kevin is the SME of video games in the group because of his personal experience with different types of games. Jamie and Linda's job is to complete interviews with teachers and students at a local alternative high school. Bo's job is to complete research about different types of video games by playing them and researching the connection between the social studies states standards and the information presented in the video game blueprint. Another main stakeholder is Bob Reckowsky, who is the principal of the local alternative high school and the client for the educational video game design. The last stakeholders, in this case, are the teachers and students that the educational video games. These will be the audience and the primary users of the video game that will be created by the graduate school team and Paul.

The main instructional design challenge, in this case, is creating a paper-based video game design that can engage students and create a meaningful change in teaching and learning about sensitive and controversial issues (SCIs) (Kello, 2016). The other design challenge that follows creating a paper-based version of the game is to write a grant to create a digital version of the game that can be disseminated to teachers. The graduate study group and Paul are stuck in the design phase of ADDIE. They've analyzed different types of video games, documentation

from the historic period that they want to include in the video game, and interviewed potential

teachers and students that they could implement this game. The design phase requires the

graduate students to develop the main objectives of the game, develop test items, and prototype

different sections of the game with the audience. There are issues with the case that need to be

addressed to accomplish the main instructional design challenge.

One issue is the graduate student group has extremely limited knowledge of video game

design. They need to find an SME that knows all about video game design to help create an

outline of how the game should be set up. Overall, the graduate student group has very limited

knowledge of video games in general and they need to have a professional game designer that

also has a background in education. They also have to make a decision about the type of video

game they want to create.

Next, Paul and the graduate students need to find ways to make connections between the

historic events and the students' lives. They would also need to be able to connect more than one

historical event in the video game. There needs to be a way to add in events that could connect to

the issues discussed in the game, and any events that may happen in the future. For example,

Paul also did background research and wanted to integrate issues such as Guantanomo Bay and

the Patriot Act.

Another issue with the project as a whole is the lack of appropriate resources and budget.

The school itself that is asking for the graduate student group to complete this project doesn't

have any special resources or budget to go towards the project. Paul ordered some textbooks and

documentaries but that is a limited amount of resources to use to create a whole video game.

There was also a workbook that Paul got from the principal and the standards to align the video

game and make sure that the game matched the objectives that the school needs to teach the students.

There is also an issue with time. The teachers have expressed concerns about the time to implement a game like this in the classroom. The game that will be created needs to be able to be integrated into a unit of learning that is usually only a week long. If the students need to complete the game via blended learning, there would also be an issue with equitable access to the internet and a device. The teachers also have an issue with the time it would take to create lesson plans to fit the video game into their unit about whichever history unit they would incorporate the game into.

Prioritization of the challenges

#1: Lack of Budget and Resources

This would be first on the list of priorities because, without a proper budget and resources, there is no game or even a concept of a game. It would be a lot of work for no end product.

#2: Locating an Educational Video Game Designer (SME)

This would be next on the list of priorities because when someone is creating a video game, there are many components that go into it. There would need to be someone familiar with the layout of a video game, coding, animation, dialogue, music, and other development skills and departments. This would all need to be considered even when creating a paper-based version of the game.

#3: Time Allocation for the Video Game in the Classroom

This would be next on the priority list because, without proper time allocation and support for the teachers, they wouldn't be able to implement this type of activity in the classroom.

#4: Aligning the Historic Events with the Educational Standards and the Game

This is last on the list of priorities, while still important, the sheer lack of basic knowledge in both education and game design resigns this to the bottom of the list. The historical context of the game and that alignment to the state standards would not be possible without all of the issues above being addressed. Even the teacher guide and resources need to be created in order to figure out the timeline and scope of the game.

Looking at the Ke (2015) article, the author discussed how important intentional planning was for learning and educational games. Specifically, on page 222, the author discussed different types of games and their characteristics of them. This could help the graduate student group and Paul decide which type of game would best fit this project (Ke, 2015). This article could also give more perspective on how to create an effective learning game with components such as integrating the narrative into the gameplay, domain-specific knowledge, and how that fits into the game, and even how to create the rules and scaffolding for the game for the users to get the most out of it (Ke, 2015). This article also helped me understand the importance of being intentional and systematic in the creation of learning games and how big the whole operation of creating a learning game can be.

Looking at the Kello (2016) article, the author talked about the importance of the teachers and their teaching style and background having an effect on the process of talking about and teaching sensitive and controversial issues. This article could assist Paul and the graduate

student group because it can help them make sure to approach the historic content that they are working with to create the game with awareness and sensitivity. This article helped me gain a perspective on how to teach sensitive content in an open-ended way that teaches the content but leaves "the truth open to the pupils" (Kello, p. 46). It will also help the students that this game would be introduced to build skills such as critical thinking and empathy for events that happened in history.

My previous experience with educational video games is limited to games more about building basic math skills rather than covering sensitive historical topics. I am also a teacher and have implemented educational video games into my classroom so I relate to the teachers that the graduate students interviewed. I do have personal experience playing different types of video games, however. I am also aware of how much work, money, people, and development time goes into making a video game. This all has an influence on my possible solutions to the main instructional design challenge.

Solution #1: My first recommendation for a possible solution to creating a paper-based video game design that can engage students and create a meaningful change in teaching and learning about sensitive and controversial issues is to go back to the Analysis phase of ADDIE. I feel like they started to move onto the design phase of ADDIE without having enough information. The graduate students and Paul should follow the Dick and Carey model. This would allow the students and Paul to get more information and be able to narrow the scope of the game they want to create. It also allows them to identify a main instructional goal, develop and select instructional and assessment materials, and conduct multiple checks to make sure they are aligning the game with the main instructional goal. This would also include making more

connections with SMEs from different game companies to identify the steps and required resources to create an educational video game.

The pros of this solution are it would follow an evidence-based instructional design model to create a module that could be converted into a game in the future. It would also allow the graduate students and Paul to collect more information about how to design and create a learning module in the form of a game.

The cons of this type of solution are the amount of time and resources required to go completely back to the beginning and conduct all of the assessments and components needed to follow the Dick and Carey model. There isn't a timeline listed in the case study but this would easily take up a large portion of time.

Solution #2: Another recommendation for a possible solution to creating a paper-based video game design that can engage students and create a meaningful change in teaching and learning about sensitive and controversial issues is to scrap the idea of making an educational video game and rather create a learning module for a game that already exists. The idea is to create an online learning module that would work similarly to a virtual field trip at a museum and go through facts, videos, pictures, and interviews for students to look around and learn more about the subject material in an engaging way. The students can play a game that already exists about the subject material and then complete the guided learning module. This will also allow for more information and historical events to be added and can link to the real world and places where resources already exist about these events. Even though the game is a great idea, it isn't feasible with the resources, budget, time, and skill needed to create a video game from scratch.

A pro of this solution is that the graduate student group can use their knowledge

of instructional design to create a learning module that will benefit the teachers and the students. It will also help to start with a game that is already created because it allows the students to just use their time on the learning module instead of spreading themselves too thin.

One con of this solution is licensing for having the students complete a game that already exists. Another con is having to start over with some of the planning and analysis. However, I think this would have needed to be done no matter what the solution.

My final recommendation and choice for the solution is for the graduate student team and Paul is to follow Solution #2 and scrap the video game idea and instead create a learning module based on a game that has already been created. I think this is the best route for Paul and his students to follow due to a lack of expertise in creating video games, it is thereby completely out of their scope. To address the licensing issue, the graduate student group could create a grant for a license of whatever game is chosen to be used with the learning module for 10 years. This would give the students a chance to play and integrate the game into a learning module that they create. The con of the students having to start over would have needed to be addressed regardless. The group of students and Paul didn't have enough information to begin the design process and would have needed to conduct more interviews and assessments to create a meaningful product, whether that was a game or a learning module.

References

Ke, F. (2016). Designing and integrating purposeful learning in game play: a systematic review.

Educational Technology Research and Development, 64(2), 219–244.

https://doi.org/10.1007/s11423-015-9418-1

Kello, K. (2016). Sensitive and controversial issues in the classroom: Teaching history in a

divided society. Teachers and Teaching: Theory and Practice, 22(1), 35–53.

https://doi.org/10.1080/13540602.2015.1023027

Wheeler, W. (2004). Case Study 4. Integrating Wireless Technology in the Enterprise, (2017),

253–262. https://doi.org/10.1016/b978-155558295-1/50014-5