



**An animation project demonstrating the  
consequence of changing the purpose, scope,  
and complexity without facilitating the changes**

**Group 17**

**Reyhaneh Raja Beheshti**

**Tonje Guttormsen**

**Saeid Morovvati**

**Sajad Daliri**

**Preface**

In this report, we are going to give a brief explanation about digitization projects and the challenges we faced when making an animated video. Also, we will evaluate our project and describe the success or failure factors in our project and the constraints that we had in processing the animated video.

**Group number: 17**

**Student names and student number:**

- 1) Reyhaneh Raja Beheshti 520653**
- 2) Tonje Guttormsen 521922**
- 3) Saeid Morovvati 520665**
- 4) Sajad Daliri 520662**

## **1. Digitalization project**

### **A) The reason for producing the product**

In this project, we decided to make an animated video of a real-life case from the book “*The Road to Success - Narratives and Insight from Real-life Projects*”. The case is about a project that went from being a small cost optimization project to a large complex project. It shows the consequences of changing the purpose, scope and complexity without facilitating the changes by providing sufficient resources to the project. The purpose of making the animation was to make learning easier and more efficient for students taking the course “Project Planning and Control”. We decided to make an animated video because we thought this could be a fun and interesting way to present this case, instead of having to read it. With illustrating pictures and a voice explaining the case, the only thing you have to do is to press play and pay attention to the video. This way of presenting the case could also be helpful to those who feel they have the best learning outcomes of listening rather than reading.

### **B) Main Challenges**

Access to complex systems for training is usually limited, risky and costly. According to (Guttormsen-Schar and Krueger, 2000), interactive simulations can demonstrate the conditions of actions and events in the real world and support a constructivist learning approach within Multimedia Learning (Holzinger, 2002a). With simulations, developers attempt to provide a rich environment wherein students can explore freely (Holzinger and Edner, 2003).

Digitization brings many new producers to the market because digital content is less expensive to produce and relies on software that integrates functions which were previously only available by employing skilled professionals. (Picard, 2011)

Since the digitalization project was a new experience for the team members, we experienced some challenges. Some of the main challenges that the group had with this type of project were:

- 1- Choosing the best digital learning aid
- 2- Different ideas about choosing a suitable project case from the book
- 3- Not having enough skills in making any type of digitalized project before.
- 4- Finding a proper software to make the animation
- 5- Spending time to learn how the software worked
- 6- Variable options in the software
- 7- Losing one of the members of the group that led to putting more pressure and extra workload on the remaining members of the group.
- 8- Time waste because we spent a lot of time doing the project in other ways and changed the decision to do the rest in a completely different way in the middle of the project.
- 9- Getting a schedule is just one important step in the process of project management. The real work begins when circumstances cause delays and pressures mount to revise the schedule

(Smith, 2002). We had time constraints for team members and some problems with group meeting schedule because of other assignments and projects that the group members had to hand in on time.

But based on Edmondson (2012) people who had worked on terms with greater task novelty and product complexity, more diverse colleagues, and more boundary spanning, learned more than people on terms that faced fewer of those challenges.

## **2. Self-evaluation of the project management effort in the project**

The group consisted of five people. First, we had to choose what type of digital learning aid we wanted to create. After some brainstorming sessions, it was decided to make an animation of a real-life project case. We had different meetings to select a proper case. Since there were a lot of cases in the book, members had different opinions. Finally, we came to the conclusion to choose a case from the chapter “Product development projects”, case 4.1 “Cost optimization of a product” in the book *The Road to Success* (Hussein, 2018). Since none of the group members had any experience with making an animation, we started making it by taking pictures and videos where the group members performed as actors to show the different scenes of the case. We had a lot of innovative ideas and started filming, but we met some barriers and challenges such as not having a professional camera to take high-quality pictures and videos, not finding an empty and quiet room to shoot the scenes and a time-consuming process of filming over and over again. It was then decided to change the plan of filming and acting to make an animation using a software instead. An unforeseen event and big risk was that one of the group members left the group and there was a need for rescheduling the whole project tasks. The rest of the members had to take all the effort to finish the project on time, a good project coordination and the commitment of all the other members led to a successful project at the end, despite all the concerns that group had with other courses.

According to Steven et al. (1993), project evaluation is a combination of a number of activities ranging from setting indicators, developing model, defining measurable outcomes, identifying key stakeholders and their interests, selecting methodology for evaluation, collecting information, analyzing data and disseminating evaluation results for further learning.

To finish and upload the project before the 12th of November was a crucial success criteria in the project. So we tried to keep pace with our rescheduled time table and deliver it on time. Since we had to do the rest of the project with 4 people, we decided to divide the tasks into two parts: the software part and the report part. The software used in this project is called Video Script. Two of the group members tried to learn the software and do the editing part and the remaining members spent more time on writing the report. The video had to be in good quality, so a professional software was needed to make the best possible outcome. It was also required to satisfy the stakeholders and meet their needs and expectation of producing a useful learning aid. We believe all the requirements were fulfilled in the project with our motivated, committed and knowledgeable team members and their good project planning.

As mentioned before, the only deviation was the good team-building and effective communication among the group members that started to weaken as one of the members left the group, but a good team spirit helped the member to keep strong and continue the project better than before.

B) We evaluate our project management effort as successful

Scale	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Your response				X	



### **3. Self-evaluation of the value to the learners? (evaluation of project success)**

#### **A) Target audience and the learning objectives**

Generally, digitization projects have benefits in terms of direct transformation of information or ideas without any human intervention and the audience can remotely get access to the information in a short time. Also, these types of projects can give a better and clear understanding of the whole idea by using simple tables and drawings in comparison with solid books or other methods of learning.

The objective of our product is to provide an easy and attractive aid for learners to give them a better understanding of their course materials and subjects and help them visualise the information written in their books. Students are the main target audience of this project. This product can also be useful for teachers to apply in their method of teaching to make boring subjects more appealing for the students.

#### **B) Evaluation method**

In order to evaluate the product, we needed a sample of people to show the product to and get feedback. The target group of the project are students who are receiving the digital learning aid and since there are a lot of students at NTNU, we decided to use a sampling model to choose some people among those students. In this case, the most relevant one was Convenience sampling because it was a quick model to collect data, we could easily collect data and there were fewer rules to follow, unlike the other probability sampling techniques.

Convenience sampling (also known as Haphazard Sampling or Accidental Sampling) is a type of nonprobability or nonrandom sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study (S & Given Lisa, 2008).

Convenience samples are sometimes regarded as ‘accidental samples’ because elements may be selected in the sample simply as they just happen to be situated, spatially or administratively, near to where the researcher is conducting the data collection (Etikan, 2016).

#### **C) The number of informants and selection method**

Using the convenience sampling method, we sent a link of our animated product to individuals and our fellow students by using the contact list on our phones, and some of the students connected to us via social networking websites such as Facebook and to individuals whom we know in person at our dormitories. This was the easiest and the most convenient way of recruiting the sources of the primary data for our research.

The project link was sent to 33 students who are currently studying at NTNU and 7 students of our friends who have finished their PhD or Master’s degree in the last five years at NTNU. To expand the scope of our product evaluation, we asked 4 friends studying at different universities

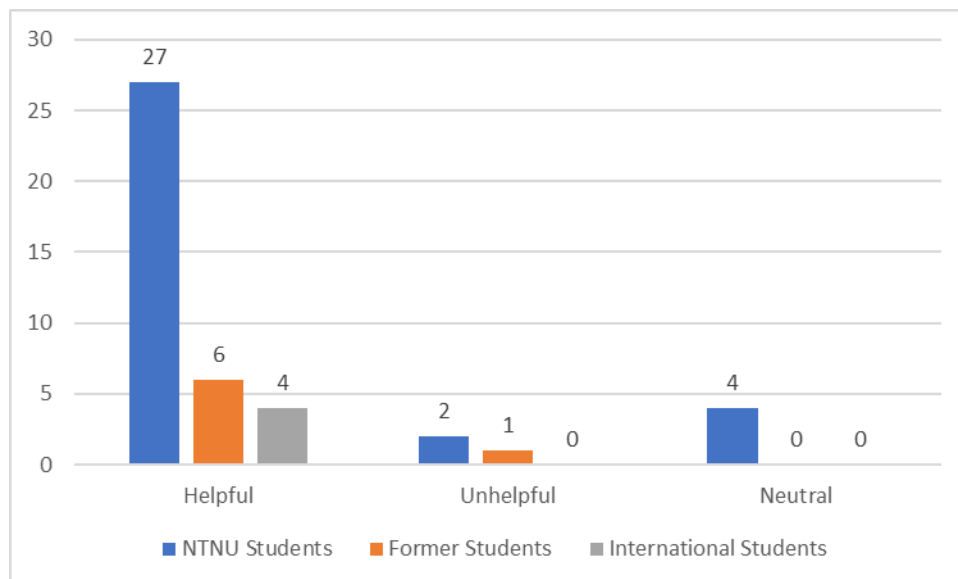


abroad to give their opinion on how much the product could help them understand the case in comparison with reading the case from the book and asked them to give their answers within the 3-point Likert scale of Helpful, Unhelpful, and Neutral.

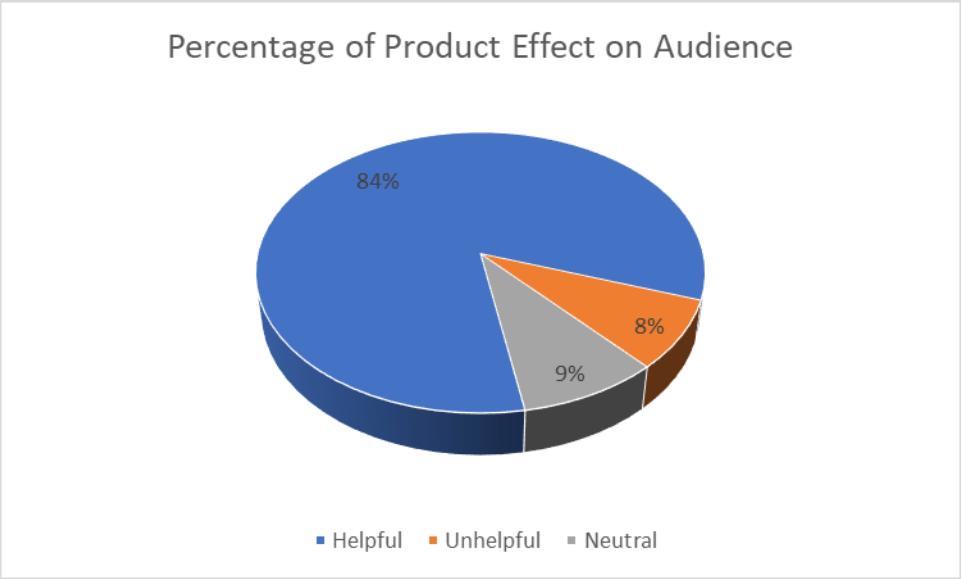
#### D) Results of the survey

Among all 44 participants, 37 people found it helpful to understand the case instead of reading the book. 3 people preferred the traditional way of studying by reading the book, because of the psychological effect reading the book gave them so that they could make sure that every detail were covered in the book but not in a short animated video and hesitated to use the digitalized aid of learning.

Participants	Number	Helpful	Unhelpful	Neutral
NTNU Students	33	27	2	4
Former Students	7	6	1	0
International Students	4	4	0	0
Total	44	37	3	4



In general, 84% of the audience found the product a successful method for learning and 8% preferred reading books and 9% were neutral or didn't give any response.



D) Evaluation of the degree of our support to the following statement (group-based evaluation):

	Our product is of high quality and we recommend it to be used as learning aid in project management				
Scale	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Your response				X	

#### **4. Factors that have contributed to failure/success.**

The definition of success in projects has changed from being limited to the implementation phase of the project life cycle to encompassing the complete life cycle of the project and its results (Hussein, 2018). People say that a project is successful as far as project management is concerned if the project is completed within time, within the given budget and meets the customer requirements with the specified quality (Bodicha, 2015).

There are several factors that the group think has contributed to the project being a success, the most important being trust and respect to each other in terms of finishing the tasks you were given in a good way and to have an open mind toward new ideas and suggestions, and that we managed to be flexible and adaptable if challenges occurred and we had to think new. A list of success factors are mentioned and evaluated below:

- Commitment  
In the work of making the animation, all the group members were dedicated in the process, coming up with several ideas to increase the quality and striving for a good result.
- Clarity of purpose and objectives  
When we first started the project, we had meetings and discussed, among other things, what our goal was and the purpose of this project. By discussing this in advance, we made sure that everyone's voices were heard when defining the purpose and the goal of the project.
- Trust and responsibility  
Before we started working on the project assignment we already had some experience with how we functioned as a group by doing the exercises. This meant that even before the start of the project assignment, we relied on each other to finish the work we were given in a good way. Trust was also important in the creative process of planning the animation. All the members of the group shared their ideas and opinions on how the various parts of the animation could be performed, and there was no such thing as stupid ideas. The result became a mix of everyone's contributions.
- Flexibility  
The members' ability to be flexible was an important success factor. We faced several changes in the making the animation and we had to make compromises and adapt in order to go on with the project. Also, the fact that none of the group members had any

experience with making animations before, made us be adaptable in learning about new software and how to use it.

Another case that demonstrated our ability to be flexible was when a previous member had to leave the group unannounced. After the planning phase the member did not show up as planned and we could not reach him. Then we had to be flexible and think again, and we had to divide the work between the remaining group members.

- Openness

In the creative process, there was great acceptance for new ideas, to ask for help and to share your thoughts within the group. This created a truthful and honest atmosphere.

- Adequate early planning

After defining the objectives of the project, we made a plan and used it as a tool to achieve the objectives. By having a plan we got a good overview of the project, what needed to be done, the estimated duration of the different tasks and who was responsible for what.

- The same level of ambition

The group soon found that the level of ambition and expectations were somewhat the same. By having the same level of ambition we avoided frustration and a bad mood within the group because of people not showing up as planned and not finishing the work they were assigned. When a group consists of people with the same expectations, things tend to run more smoothly.

We have also identified some factors that were challenging during the project. These challenges are something we are now aware of, and if we ever experience similar difficulties in future projects or group work we have a better chance of handling them in a good way.

When we decided we wanted to make an animation, none of the members had any experience with making or editing movies or animations. We split the tasks so that some of the group members had the main responsibility of the animation. It was time-consuming to learn how to use the animation program and make the animation.

Another challenge we faced was when a group member had to leave the group unannounced. We had to redo the plans and schedule, and this also led to increased workload on the remaining members. We also experienced difficulties in finding a time during the week where all group members were available. With four different schedules, it was sometimes challenging to find a suitable time to meet, but the members showed flexibility in making time in a busy schedule.

Initially, we decided to make a movie instead of an animation. During the filming process, we were not happy with the quality and our acting skills, which caused us to change our minds and make an animation instead. This was a stressful part of the project, finishing it until the deadline.

## **5. Most important lessons learned from your project**

If we were to give future students in this course some advice regarding the Project Assignment, we would suggest the following:

- 1) You should first identify the learning objectives of your final product before deciding on the type of product you want to make. If you want the end users to have a "learning by doing" approach, the group might consider making a computer game or a simulation. If you want to create something where the end user only has to pay attention and not do anything themselves, maybe you should consider making a movie, an animation or an interactive e-book. In this process it is important that the group think about what experiences they have and use this experience to decide which product to make and the development of it. We believe that the more innovative you manage to be, the better.
- 2) Our advice is to start the project with brainstorming where everyone is present after you have chosen the type of product you want to create. In some parts of the project it might be a good idea to work individually or in smaller groups to make the most out of your time, but this is not one of those parts. This part of the project should not be delegated to a few people. A lot of good ideas are introduced in this process, and our opinion is that it will make the end result better.
- 3) We learned that it is important to:
  - make a plan to coordinate available dates the different group members are free to meet
  - have somewhat the same level of ambition among the group members, this makes the whole process easier for all parties involved
  - be aware that unexpected changes may occur, try to identify these changes and, if possible, make a plan of action that involves handling such changes
- 4) Our experience suggests that you should find someone with the same level of ambition as yourself. If everyone is determined to spend the necessary time on completing the product, the process will run more smoothly.

## 6. Reference

- Bodicha, H. H. (2015). How to Measure the Effect of Project Risk Management Process on the Success of Construction Projects: A Critical Literature Review. *The International Journal of Business & Management*, 3(12), 99-112.
- Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), p.1.
- Edmondson, A. (2012). Teamwork on the Fly. [online] Harvard Business Review. Available at: <https://hbr.org/2012/04/teamwork-on-the-fly-2> [Accessed 6 Nov. 2019].
- Holzinger, A. (2003), Interaction and Usability of Simulations and Animations: A case study of the Flash Technology. In: Rauterberg, M.; Menozzi, M.; Wessons, J. Human-Computer Interaction INTERACT 2003.
- Holzinger, A. (2002a), Multimedia Basics, Volume2: Learning Cognitive Fundamentals of multimedia Information System, Laxmi, New Dehli
- Hussein, B. (2018). The road to success. 1st ed. Trondheim.
- Picard, R.G.,( 2011). Digitization and media business models. Mapping digital media.
- Schar, S. and Krueger, H. (2000). Using new learning technologies with multimedia. *IEEE Multimedia*, 7(3), pp.40-51.
- S. K., & Given Lisa M. (2008). Convenience Sample. In *The SAGE Encyclopedia of Qualitative Research Methods*. Thousand Oaks, CA: Sage.
- Smith, K. (2002). Project management and teamwork. New York: McGraw-Hill.
- Stevens, F., Lawrenz, F., & Sharp, L. (1993). User-friendly handbook for project management: Science, Mathematics, Engineering, and Technology Education. Washington DC: National Science Foundation.