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Submitting an ERASMUS + Project On Gamifying Higher Education

Carine Chisu

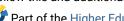*State University of New York College at Buffalo - Buffalo State College*, chisuc01@mail.buffalostate.edu

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Submitting an ERASMUS + Project on
Gamifying Higher Education

by

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An Abstract of a Project
In
Creative Studies

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

May 2020
Buffalo State
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ABSTRACT OF PROJECT

Submitting an ERASMUS + Project on
Gamifying Higher Education

2019 has been the year in which climate change and climate conscience have been key concepts, the first trimester of 2020 has been determined by the coronavirus pandemic. Exactly in the same way changing external conditions make any project in need of pivoting, Higher Education has to adapt and change as well. A first identified step is the development of e-learning, but then the shorter attention span and other external reasons for the new profile of students make it difficult. Gamification was therefore identified as a possible solution. The current project describes the process of submitting a proposal of ERASMUS + project to the European Commission on the gamification of Higher Education.

Keywords: e-learning, gamification, higher education, innovative, entrepreneurial creativity

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_____
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Dedication

"This project is not an ending point, it is rather a starting point".
(S. Keller-Mathers)

I wish to dedicate this project to all current and future European cohorts of students that (will) undertake the marvelous journey in Buffalo State's Creativity Studies program.

Acknowledgments

I want to thank all remarkable lecturers and professors who have guided me in this transformational journey through the Master's Degree in Creativity and Change Leadership, especially Sue Keller-Mathers and Gerard Puccio. It has been an academic honor and a human adventure to be accompanied by both of you. Your answers, questions and paces have made me grow.

I thank my cohort members, Noor Baig, Mary Brown, Mieke de Rooij, Hanneke Hövels and Paolo Sbuttoni, who have all been a source of inspiration, each in a different manner, making the human, professional, and cultural puzzle complete.

I also thank Kathleen Van den Keybus for proof-reading this project and inspiring me by asking pertinent questions.

I thank the members of the "Compass group" (Andra, Annette, Arlette, Ingeborg, Marieke and Mirjam), for helping me by exchanging knowledge and sticking with me in these past two years.

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Finally, I thank Mrs Bea Parnes for continuing her husband's work through the scholarship she provides. The Parnes-Noller Scholarship has given an extra inspirational dimension to my journey.

Table of Contents

SECTION ONE: BACKGROUND TO THE PROJECT

Purpose and Description of Project

This project is the ongoing result of different influences in my professional and academic path until now. My professional path brought me to experience higher education from within as a director of a central department (with student recruitment amongst other responsibilities), provided opportunities to work with entrepreneurs as a consultant and brought me also to entrepreneurship myself. An experience as an executive search consultant has made me also aware of the gap existing between the competencies newly graduates have and the competencies required by the labor market. As a passionate learner and teacher, and always looking for new opportunities, my goal through this Master's project, is to embed all these elements in a creative project in order to make a career shift and create a new business.

Coming to the deliberate application of creativity has been a personally transformational journey, as I first realized the 'old' business models consultants used were coming to an end, which made me look at creativity. Entrepreneurial creativity was my next step where I realized that a merely economic definition of entrepreneurship was too narrow for my understanding. So I chose to embrace the European definition of entrepreneurship of social, green, digital, economic, personal entrepreneurship, as well as intrapreneurship (Bacigalupo, Kampylis, Punie, & Van den Brande, 2016). Entrepreneurs need to be constantly creative, not just from time to time, yet all the time. How are people with an entrepreneurial mind set different? They identify opportunities before applying creative problem solving. Next to opportunity finding entrepreneurs need good knowledge of the sector, as well as self-efficacy (Mc Mullan & Kenworthy, 2015).

Self-efficacy, as is defined by Shahab, Chengang, Arbizu and Haider (2019) is the capacity to believe one will achieve the goals set. It is also the basis for taking action, which is

what makes entrepreneurs different from merely theoretical people. Higher Education, for how it still is organized today, is not adapted anymore to a society in which creativity is to be one of the most important competencies. So, if it is to take the next leap into the 4th Industrial Revolution, learning by doing (Rickards, 2016) should definitely be part of it, in order to provide graduates with the competencies needed for a rapidly evolving world. Providing education in entrepreneurship, educating students to solve real world problems can constitute a possible future solution for people taking more responsibility for their own learning, career and life.

My next step in the application of creativity was the result of an encounter with Kathleen Van den Keybus, managing director of Uflow, a user experience (UX) design agency. We identified an opportunity to work together by joining forces on our competencies (pedagogy – creativity / design thinking – UX design). Plans of digital projects in Higher Education, introducing learning by doing and the real world, have been forged.

Apart from not adapting to the real world anymore, Higher Education is facing various challenges, not in the least due to demographics. The aging of population has consequences for people's career lengths, lifelong learning as well as for how, where and when people learn, as it occurs in parallel with working and family life (www.TheConversation.com). The desired competencies require experiential learning, collaborative learning, learning to learn and creative problem solving in this fast-paced world full of ill-defined challenges. Consciousness about climate issues for example, will make technology more important for society in general and hence for education (www.IDEO.com).

If Higher Education wants to take up the challenge of educating the biggest number of students possible to an entrepreneurial mind set, it will have to do it creatively. In today's society, engagement seeking is a hot topic, and it is equally a plague for Higher Education. The

Fun Theory states that *"if you want to get people to change their behavior, make what you want them to do novel and fun"* (Wickes, 2018). If Higher Education can succeed in making students more engaged, it will provide a lifetime experience to students, providing outcomes instead of degrees and knowledge for employability rather than knowledge for knowledge sake (www.evolllution.com). Introducing fun would completely change the customer experience of students in Higher Education, and it would open the path for Higher Education to consider students not as consumers (www.evolllution.com) but as actors of their personal learning. Higher Education could then become student-centered instead of being degree-centered as it still is the case today.

This Master's project will focus on the description of the process gone through this semester to submit a collaborative proposal between academic and for-profit actors, presenting a framework in the gamification of Higher Education to the European Union, under the form of an ERASMUS+ project (https://ec.europa.eu/programmes/erasmus-plus/node_en). This Master's project and the description of the process will not disclose the framework in itself, nor the names of the different partners, nor the content of the proposal for reasons of confidentiality.

SECTION TWO: PERTINENT LITERATURE

Various articles, books and websites have formed my thinking. Topics of creativity, entrepreneurial creativity, e-learning, gamification as a technique, gamification of higher education as a business model and influencing others are explored next.

I realize I have adopted design thinking as a deliberate thinking mode, as in observing the users in order to come up with new ideas, adapting to the users and adjusting, having been working on the client experience in my consultancy and coaching life. This makes it difficult to stop evolving at a certain point as the thinking, observing and adapting never does. On the other hand, it makes it possible to evolve and create products being adapted to a majority of users.

When it comes to learning, different elements of understanding come together at the same time: our society doesn't need solely knowledge anymore, it needs skills and competencies. In the past, educational science didn't have all the neuroscientific knowledge that it has now, so if teaching wants to evolve, the education discipline needs to take that knowledge in as well. Dirksen (2016) opens up the learning situation by stating that learning should be designed for every type of learner. There are different learners, with different preferences and different kinds of intelligences. Therefore it could be interesting to vary the learning methods. Designing the learning means that one would observe the learners in order to understand them better and then adapt the pedagogical approach to them and not the other way around.

After observing, the instructor who takes the step to e-learning will have to be more aware of the learning and teaching processes (again), by chopping it down to smaller steps, in order to design for these smaller steps again (Boettcher & Conrad, 2016). The big difference between (asynchronous) e-learning and the classroom situation is that the instructor cannot compensate a less well worked out learning activity with body language or emotional

intelligence. It demands more effort from the instructor as every step has to be taken more deliberately (again). I was able to experience this myself, having taken an e-learning design course, organized by the State University of New York Buffalo State College's Instructional Designer Brooke Winckelmann in January 2020. A good method for being more deliberate about the educational steps (used by Brooke Winckelmann) is the backward design theory, where a start is made with the results that should be obtained. From this starting point on, one then plans the learning objectives and learning activities and goes backward instead of planning ahead. The instructor though is able to take the student with her step by step, whereas the instructor, never loses sight of the end result aimed at (www.learning-theories.com/backward-design.html).

Why Gamification?

Is gamification then a special kind of e-learning? What e-learning has brought up is the fact that a lot of learning material is boring to many learners. When instructors just translate their physical courses into a digital format, without re-designing the course, it can be boring. All elements an instructor has at his or her disposal during a physical course has to be embedded in the e-learning and that's not easy. As stated by Rahman, Ahmad and Hasim (2019) "one of the main challenges confronted by educators today is to engage students during the teaching and learning process" (p. 491). "Sustaining the student's interest and participation is a struggle that leaves the educator in a quandary" (p. 492). The whole concept of gamification has come up from the observation that learners had difficulties to stay engaged for a longer time in a learning process, where in games, people just have fun and want to go on playing (sometimes even for years).

As explained by Dichev and Dicheva (2017) "the idea of incentivizing people is not new but the term "gamification" didn't enter the mainstream vocabulary until 2010. Only a year later it became a viable trend. The growing popularity of gamification is stemming from the belief in its potential to foster motivation, behavioral changes, friendly competition and collaboration in different contexts, such as customer engagement, employee performance and social loyalty" (p. 1).

One of the main reasons students study so little is because they find it boring. According to Niman (2014), "it is boring because the educational process is focused on outcomes – (how much did you learn) – rather than on the process" (p. 77). That is why "gamification is receiving attention, particularly for its potential to motivate learners" (Dichev & Dicheva, 2017, p. 2).

Lavieri (2015) states "there are two primary factors responsible for the growing use of computer games in education. The first factor is the widespread use of computer games by youth and adults" (p. 26) and also:

> Reports suggested that large percentages of youth and adult learners are likely to relate to a learning approach that employs computer games. The second factor for the growing use of computer games in education is the relative ease in which these programs can be created. Removing the need for expert programmers greatly increases the opportunity to develop computer games with a focus on pedagogy (p. 26).

Through a report of The Federation of American Scientists, Lavieri states (2015) that "games teach learners important workplace skills (e.g. critical thinking, teamwork, multitasking and problem solving" (p. 29), which is another argument why gamification could have its place in higher education.

What Makes Games and Playing so Fun?

According to Stewart Brown as he stated in a Tedtalk (2008), "play is more than just play; it is a medium to bring the hand and the brain together as well as being a transformative force." Human beings are wired to play their whole life, but culture has made us, adults, distant of play in our daily lives. On the other hand, "gamification is the concept of applying game mechanics to engage and motivate students in learning" (Mohamad, Sazali & Saleh, 2018, p. 22), or said differently "engagement focusses on keeping learners' attention for a long time. Without engagement, learners will not be motivated to do the task" (2018, p. 23). Huang and Soman state it in a corresponding way:

> Motivation and engagement are usually considered prerequisites for the completion of a task or encouragement of a specific behavior. In education, the reasons for drop-outs or low performance include boredom or lack of engagement, a pattern of escalating absenteeism where each absence makes the person less willing to return to school, and most importantly, being distracted by technology such as smartphones and the internet. Employee training programs face similar challenges, due to minimal interest and attention (2013, p. 5).

"Gamification refers to the use of game design elements into a non-game context and can be divided into: (i) game mechanics; (ii) game characteristics; and (iii) game dynamics" (Mohamad, Sazali & Saleh, 2018, p. 23). Ray Wang describes it as "a series of design principles, processes and systems used to influence, engage and motivate individuals, groups and communities to drive behaviors and effect desired outcomes" in Demystifying enterprise gamification for business (2011).

According to Niman (2016) "a well designed game will create an experience that totally absorbs the attention of the player to the point where the game becomes a reality in and of itself (p. 77). This can be understood then as the reason why gamers can remain glued to their screens for so many hours. And he adds: "Gaming is perhaps the best representation of the concept of learning by doing" (2016, p. 100). This is an interesting source of inspiration for education, as it really is what we are all looking for: making students acquire competencies.

Advantages of Gamification

Advantages of gamification can be found on different levels as identified by Stott and Neustaedter as "freedom to fail, rapid feedback, progression and storytelling" (2013, p. 1). Figg and Jaipal-Jamani (2015) identified another main advantage: " Gamification provides a connected learning experience by combining academic or formal learning (the content of the course) with informal learning (choice to explore as much content, or as little, as desired) through tapping into the social preferences (individual or collaborative) of digital learners " (p. 667). In her book, Lecerf-Thomas (2015) gives special attention to collaboration, attention to the context and the fact that we learn from each other as well in order to develop collective intelligence. When looking at the European educational system in Higher Education, which is still very much focussed on the individual learner, gamification and its multi-player possibilities could bring an answer to that challenge.

Gamification: Only Advantages?

Although gamification seems to be aboveground all about extrinsic motivation with its badges, leaderboards and points, these elements should only help the intrinsic motivation, as mentioned by Amabile (1997):

The motivation to work on something because it is interesting, involving, exciting, satisfying or personally challenging. There is abundant evidence that people will be most creative when they are primarily intrinsically motivated, rather than extrinsically motivated by expected evaluation, surveillance, competition with peers dictates from superior, or the promise of rewards (p.39).

Gamification is probably not the holy grail for every learner. Alomari, Al-Samarraie and Yousef (2019) have identified a possibility of learners not having better grades, but being more motivated to finish a course or a curriculum. Gamification also raises the question on students learning about the real world, although real-world problems could be introduced in the game. According to Huang and Soman (2013):

For students, gamification serves the purpose of minimizing negative emotions that they usually encounter in traditional forms of education. It lets them approach knowledge and skills, using the learn-by-failure technique that use popular in game-like environments, without the embarrassment factor that usually forms a part of classroom education. Instructors on their part can efficiently achieve their set objectives and use currency-based tracking mechanisms to get feedback on their students' progress (p. 24).

When reading some academically relevant literature, one aspect struck me as being of major interest: the theoretical researchers I read didn't make a distinction between good and lesser uses of gamification. There has been no difference made between what gamification with positive effects is and what gamification without positive effects might be. When developing the framework I need to be cautious on the use of extrinsic motivators, as these can be extremely powerful in the short term, but could make learners completely not interested in the long term (Pink, 2009). Therefore, I was happy to discover Yu-Kai Chou's book on Actionable

gamification (2014) for two reasons. First because I found a definition of gamification that builds on my deliberate use of design thinking:

> Gamification is the craft of deriving fun and engaging elements found typically in games and thoughtfully applying them to real-world or productive activities. This process is what I call 'Human-Focused Design' in opposition to what we normally find in society as 'Function –Focused Design'. Human-Focused design optimizes for human motivation in a system as opposed to optimizing for pure functional efficiency within the system (p. 8-9).

Secondly, the book is a continuous applicable source of how to gamify in a positive way according to Yu-Kai Chou's framework (2014), called Octalysis, which features different elements. First, there are eight core drives: meaning (called storytelling by other authors), empowerment, social influence (collaboration), unpredictability (choices), avoidance, scarcity, ownership and accomplishment. Some of these core drives have a positive impact, other can have a negative impact on the gamer, unless used with a positive intention. Chou states that a great game is "a combination of behavioral economics, motivational psychology, neurobiology, UX/UI (User Experience/ User Interface) design, technology platforms and the obvious game design dynamics" (p. 405).

Chou also mentions what one of the challenges is in gamification namely to know how to adapt the level of difficulty to the learner's level. Adaptive learning as proposed by Lavieri (2015) is by definition integrated in gamification, as the learners have different ways to come to the same result, having extra options they can choose from or not and other possible applications.

What I couldn't retrieve in Chou's framework though, are exactly the elements identified by Dichev and Dicheva (2017), is how he would embed "educational contexts, learning outcomes, learner profile within the gamified environment" (p. 2).

In summary on gamification, I would like to cite Neil Niman in the introduction of his book The Gamification for Higher Education :

> The goal of The Gamification of Higher Education is not to trivialize the learning process by making it more gamelike in the sense of a marketer who introduces game mechanics in order to sell a product. Rather it asks the question: is there anything we can learn from game design that would enable us to make higher education more engaging, relevant, and exciting so that the average student would want to spend more time studying or take part in activities that help them grow and develop as a real rather than virtual being? (2014)

Gamification is hence the step opening the door towards the integration of adaptive learning according to Lavieri. Introducing adaptive learning would mean the next step could then be the implementation of Artificial Intelligence. This might be a possible future step in the development of the gamification framework, with all ethical questions coming up at that stage as well, but answering these questions would go beyond the scope of this project.

Realizing that gamification of education might be a difficult topic in society and in the education world in itself, I propose a third option, inspired by Roger Martin (2007), which would be to let learners choose: would they rather pursue the studies in the traditional way or in the gamified way? This would of course have major economic consequences and I am not sure it would be a viable option.

Why Gamification in Entrepreneurship Education?

In 2019, Grivokostopoulou, Kovas and Perikos published on the impact of a gamified entrepreneurship education framework in higher education which had positive results. They conducted their research within the European framework of the entrepreneurship plan "Entrepreneurship Plan 2020" "which highlights the important role of entrepreneurship education as a key strategy to stimulate economic growth in all sectors at the European level" (p. 2). They have made the link towards pedagogical principles and state that gamified learning activities enhance the inductive learning and help students make decisions. They had "players" and "non-players" (p.5) in the study and there was a significant learning difference, with more positive results in the learning of the players.

Langendahl, Cook and Mark-Herbert have conducted an empirical study in a Swedish university in 2017 and they were quite positive about the results as well:

> The purposeful use of gamification may enhance the learning process by creating interactive and fun teaching sessions; to motivate and engage students by placing the students and what they do at the center of learning activities; and encourage students to more actively engage with learning activities. (p. 28)

They came however also to the conclusion, the same Kathleen van den Keybus and myself have come to after our first experiment in implementing design thinking in a pilot school during the academic year 2019-2020, that "gamification may not, however, help teachers and teaching institution to reduce their workload" (p. 28). Langendahl, Cook and Mark-Herbert conclude therefore that "it may not be an approach to make teaching more efficient (e.g. fewer teaching hours) but rather to make teaching more effective as it may contribute to students learning outcomes as well as their overall experience from the university"(p. 28).

This conclusion however strengthens my conviction that there is a huge potential and need for innovation in the education sector.

SECTION THREE: PROCESS PLAN

Goals and Outcomes

The goal of my overall project is to develop a framework for gamification in or of Higher Education, in collaboration with various partners between the private and the academic sector. The goal of this Master's project is explicit the process of submission of a proposal to the European Commission under the form of an ERASMUS+ project. In order to keep confidentiality, the names of the partners chosen will not be released and the gamification framework will not be released either. The various steps of the process will, however, give a good idea of the complexity of such a submission process.

Project Timeline

Timeline	What	Number of Hours needed	OK/NOK
January 24th 2020	Concept paper approved	8	ok
January 24th 2020	All readings done	50	ok
January 24th 2020	Preparation of references for paper Sections 1-2-3 - Why is gamification in higher education needed? - Annotated literature - Process plan	4	ok ok ok ok
February 17th 2020	Sections 1-2-3 draft completed	16	ok
February 24th 2020	Sections 1-2-3 final completed	4	ok
March 30th 2020	Sections 4-6 draft completed (results of the process) Description of the results (outcomes) : - What is the European Commission? What do they do? What is an ERASMUS + project? - How to convince potential partners? Which qualities do they need to have?	48	 ok ok

	- Feedback received from potential partners - - Interviews of Creativity graduate students why gamification is important to Higher Education - PPCO on the decision whether to submit in March 2020 or in March 2021.		Done on January 29th 2020 – Italy (Milan) Zoom meeting on February 23rd 2020 : distribution of survey → filled in by February 28th 2020 - ok January 18th 2020 : ok
March 31st 2020	Final project write-up	16	ok
April 27th 2020	Project Approval – Digital Commons Upload	1	
May 2nd 2020	Presentation	1	
May 11th 2020	Evaluations	1	

Evaluation Plan

I would have loved to have a proper evaluation plan to present in this project, but it has been much more of a journey. One direction was chosen and reality has forced me to go into another direction, and this reality check happened various times. It has been a journey in "agility", as I had to reconsider several times how to go on in order to bring the project to a good end. I will detail these steps in the section on the key learnings.

Section Four: Outcomes

What is the European Commission?

There are four European Union's bodies: the European Parliament, the Council of the European Union, The European Court of Justice and the European Commission. The Commission is the EU's politically independent executive arm. It proposes new European legislation and implements the decisions of both other bodies. The European Commission manages the European Union policies, consults experts, consults the public, deals with the issues that can't be dealt with on a national level and allocates EU funding. It is also the Commission that represents the European Union internationally and that negotiates international agreements for the EU (www.ec.europa.eu).

What is the ERASMUS + Program?

ERASMUS+ was started in 1987 as an ERASMUS exchange program for higher education students all over Europe (I was lucky to go from Belgium and stay four months in Florence, Italy the second year my university participated into the program). In 2014 all the programs funded by the European Union for sports, youth, education and training were put together in the ERASMUS+ program.

There are four key actions within the program. The first one is the learning mobility of individuals (students, youth workers, staff and young people); the second one is to develop innovation and good practices; the third one is support for policy reform; there is one especially designed for all studies concerning the European Union (Jean Monnet) and the last one concerns sports (retrieved from www.ec.europa.eu).

The one that interests this project is the second key point in which there are different chapters possible (strategic partnerships, knowledge alliances, sector skills alliances, capacity –

building projects for youth). The one that is most interesting for this project is the strategic partnership. The Program Guide 2020 states (retrieved from https://ec.europa.eu/programmes/erasmus-plus/resources/documents/erasmus-programme-guide-2020_en)

> Projects are expected to develop innovative outputs, and/or engage into intensive dissemination and exploitation activities of existing and newly produced products or innovative ideas. Applicants have the possibility to request a dedicated budget for Intellectual Outputs and Multiplier Events in order to directly answer to the innovation aspect of the Action. These types of projects are open to all fields of education, training and youth (p. 100).

What are the Main Criteria?

These are the outcomes that are expected to be produced under this kind of funding: innovative approaches for addressing their target groups, by providing for example: more attractive education and training programmes, in line with individual needs and expectations; use of participatory approaches and ICT-based methodologies ... with a positive impact on the persons directly or indirectly involved in the activities, such as: increased sense of initiative and entrepreneurship (p.98).

> The impact of this key action is meant to be increasing:

> the quality of education and training and youth work in Europe and beyond: combining higher levels of excellence and attractiveness with increased opportunities for all, including those at disadvantage; education, training and youth systems that are better aligned to the needs of and opportunities offered by the labour market, and closer links to business and the community; improved provision and assessment of basic and transversal

skills, particularly: entrepreneurship, social, civic, intercultural and language competences, critical thinking, digital skills and media literacy (p. 99).

The participating partners can be higher education institutions and private businesses. There must be at least three organisations participating from three different countries. On January 29th, 2020 I visited an associate professor and a doctoral researcher in a higher education institution in Italy, as well as a potential private business partner. As my company and Uflow are both established in Belgium, potentially two European countries are involved. In order to identify another European country, with a different culture, I proposed to do an independent study as an elective on Nordic leaders, which has already brought up a potential partner in Denmark (a public organisation). A fourth European country that could potentially be involved in the project is Romania (a higher education institute in which we could probably implement the gamification). This would complete the European picture, as there would be one partner from Northern, Southern, Western and Eastern Europe. Probably this complementarity could strengthen our application.

Needs Analysis

The proposal has to be based on a genuine and adequate needs analysis, which has been the main reason why I have documented the pertinent literature in Section Two so thoroughly. I will use this piece of text as a basis for the proposal. In order to complete this needs analysis, I have also submitted my cohort members to a survey on the need for gamification in higher education. The survey was conducted through the free version of SurveyMonkey (www.surveymonkey.com), reason why I could insert only eight questions. Five participants responded to the questions. All responses were fully anonymized. These are the questions asked.

Question 1: Do you consider yourself an engaged learner in the current program? If yes, why? If no, why not?

Question 2: What has been the level of fun within the current program until now?

Question 3: Which elements of the learning have been fun/ engaging? Please specify whether fun or engaging.

Question 4: Have you ever played video games in your life? If yes, why? If no, why not?

Question 5: Could a game add value to the current program you're enrolled in? If yes, why? If no, why not?

Question 6: As a higher education student, would you consider to pursue a degree through gamification? If yes, why? If no, why not?

Question 7: If you would, which university services would you expect to find in the game?

Question 8: Do you consider a gamified degree would be a threat for instructors? If yes, why? If no, why not?

In design thinking one of the techniques to do user research is to submit the users to a survey, as I did with my cohort members. I had thought thoroughly of the questions to ask, but with the responses I received, I realized that it is not simple at all to ask 'neutral' questions, not directing the users in a certain direction.

I was surprised to learn that most of the participants to the survey didn't feel as engaged as I did. That is a very important insight for two reasons: it means that when thinking of innovation in higher education, there is an even more fundamental shift to be made; secondly, that I have to be more neutral during the first steps of the user research.

The following elements came out of the survey: the fun factor has been of a medium level overall and what has caused fun is the in-person element of the program, namely the Summer School. Another important aspect is presented by the fact that for most students there is no need to gamify the whole process, it could even have an adverse effect for one participant. The same for the question on video games. It was interesting to learn that next to video games, there could be more need for games, play and fun, rather than a 'standard' gamification through a video game. This coincides also with the question asked by my potential partner in Italy: "why does everyone nowadays want to develop an app? (January 29th 2020)".

Another interesting aspect is that the majority of these non-native English speaking students didn't understand the question on the insertion of university services or didn't know what they were. This linguistic aspect certainly needs to be taken care of (within my perception and also within the University).

My cohort members and I have had a Zoom meeting on February 23rd to discuss these results in further detail. These observations were made: what we all enjoyed is the fact of doing things together, the social learning aspect is very important in distance learning. Summer schools are the best consolidating aspects of the program, providing motivation to all students. However everyone agreed, that the purpose can't be to reduce the distance program to in-person courses, so new practices have to be found to enhance the experience for distance learners. As it is not the purpose of this project to make an evaluation of the program we're enrolled in, I will not enter more in detail at this point here.

Deadline for the Proposal to be Submitted

Very early in the process the submission date came up as it is around every 21st of March (this year it will be March 24th). An important question has then been: do I submit the proposal in

2020 or in 2021? In order to have more ideas and opinions on this question, rather than just mine, I asked the Compass group (5 colleagues in creativity, participants in the Center for Research on Creative Thinking's Advanced program 2016-2017) to join me in an evaluative PPCO exercise (plusses – potentials – constraints and overcomes of the constraints). We did this exercise twice on January 19th, 2020 in Amsterdam (The Netherlands): once for submitting the proposal in 2020 and once for submitting the proposal in 2021. This is the summary of the outcome.

	Submission in 2020	Submission in 2021
Plusses	- Early bird on the market - High commitment - Possibility to adapt the product - Receiving the money this year gives the possibility of doing great things right away - Focus - Partners are motivated now - Pressure cooker gives more results - Innovation	- Orientation towards other subsidies - National subsidies instead of European level - Finding not just good partners, but excellent partners - Have more time to build relationships - Less stress for me and the partners - Better analysis of the market - Better proposal and thus less competitors - E-learning as a complement of gamification - More time for co-creation with the partners - More time to understand the question from the field
Potentials	- Market is ready for innovation - Being in control of change - I can help others change with a surprising vision on the market - More publicity	- To prove the market is ready - To prove there is action shyness in the field

Constraints	- Concession in quality of the product - Concession in quality of the choice of partners - Partner network is not yet elaborated - Content wise too early to take a decision so quickly - Taking decision takes time - Contacting the right person within a higher education institute takes time - Take time in order to fine tune	- Energy could go away - Partners run out - Partners run away with the idea - Lose contact with the different persons - One of the partners doesn't want to be involved - I can't convince anyone of the potential partners
Overcomes	- Online collaboration to work out the proposal and the product - Increase commitment of the different partners - One of the partners could hire me to do the preparation work - Understanding of 'what's in it for me' of all partners - Extremely well done project management - Good support through personal contacts - Social media group - Coming to the core very quickly	- Show more of the project by doing small actions - Introduce regular milestones - Do other projects with the potential partners - Look for more contact - Enrich the proposal by having a better needs analysis - Organize a conference around the needs

The preference of the whole group, me included, was to submit the proposal in 2021. The additional feedback of my first potential academic partner has driven me to the same conclusion: after a first Zoom meeting on November 13th 2019 and expressing our mutual interest of working together, we met live on January 29th 2020 in Italy. In preparation of this meeting, I had read the complete Program Guide 2020 for ERASMUS + projects. The questions I asked were very much aimed at understanding how we could develop a business out of this project, as the funding

means you can't make any economical added value on any product you develop. Furthermore, the products developed need to be OER (Open Educational Resources), so the meeting was merely on clarifying that point. Another important point was to understand what the role of each partner could be or has to be. The administrative part of the project is quite complex and luckily I chose a potential partner that already was granted an ERASMUS+ funding in the past, so they know what they are talking about. The conclusion of that meeting was double: first, in theory I can submit a proposal under my company's name, but in practice the submitted proposal will not have the same importance as when it would be one of the academic partners to submit it. Secondly, we need to develop more on the kind of products that would be open educational resources and the products we would make paying, in order to create a business out of it. It could be interesting to chunk the project down into smaller projects and take the framework on the long term. We agreed on me clarifying if there could be other possibilities to work together and I took this exercise with me in the independent study, as what is looming now is more a Joint Master or a double degree.

An ERASMUS+ project requires different partners, academic and non-academic, in different countries. Ideally, the group of partners would join from the four sides of Europe: Northern, Southern, Eastern and Western. Scandinavian countries have a good rating in higher education and coming across specific literature on Scandinavian leadership as a separate discipline, it seemed interesting to think about a potential Scandinavian partner for the EU project, based on a possible compatibility of culture and leadership. According to the outcome of this independent study, I will decide whether or not to reach out to one potential Scandinavian partner (academic or not) to collaborate on the EU project. The next chapters are a summary of the readings I did on Scandinavian leadership, in preparation of that choice.

Nordic or Scandinavian Leadership

So, what is Scandinavian or Nordic leadership, then? I will use the words 'Scandinavian leadership' and 'Nordic leadership' as equivalents, as it is used in this same way in the literature I consulted. Scandinavia consists of Sweden, Denmark, Norway, Finland and Iceland, the Faroes, Greenland (Johannisson, 2004).

In order to understand what makes Nordic leadership so peculiar, I need to make a start with the Nordic culture, as leadership is embedded in culture. The Scandinavian countries have a large common historical and geographical part, as the borders have changed from one side to another at certain moments in their history and sometimes the countries were also in a common national structure (Johannisson, 2004). Besides these two already powerful elements, there are two more Scandinavian countries have in common: their demographic spread in terms of different cultures within society is quite similar, dealing with low immigration until recently (Johannisson, 2004) and the different Scandinavian languages having very similar roots. All these elements make that Scandinavian people trust each other very much and easily as is the case in transformational leadership, described by Northouse (2016). Trusting each other is a fundamental element of the Nordic culture.

When having a closer look at what is defined as the leadership being embedded in this Nordic culture, it appears there are some elements to be considered (Chen, 2014 and Andreasson and Lundqvist, 2018). Nordic leadership is fundamentally made of several elements of which compromising between individualism and collectivism is the first one. Scandinavians have a very balanced life between personal and professional aspirations, so they really can concentrate on the individualistic part of their lives. This is made possible by the organization of Scandinavian society around the three fundamental steps of Maslow's pyramid (Chen, 2014),

under the form of a very well providing healthcare system (completely or partially free as I recall from a documentary I saw on television a few years ago), a very well organized childcare, free education and work stability even when Scandinavians are unemployed (Chen, 2014). The consequence of this society organized around the fundamental needs of people, is that it makes it possible to individually concentrate on the two highest steps of Maslow's pyramid. As far as leadership style is concerned, it means that leadership is very much balanced, as people can start from their passions and not their needs (Chen, 2014).

A second element of Scandinavian leadership is distance of power. Organizations have a very flat hierarchy and there is very little perception of people having management positions to be more important than others in organizations (Andreasson and Lundqvist, 2018).

The third element specific to Nordic leadership derives from the former one: leaders have more a coaching attitude, rather than an autocratic one. Scandinavian leaders prefer to stand amongst the people they work with, rather than above (Grenness, 2003).

The fourth element specific to Nordic leadership is the fact that, in Scandinavia, a women's position is amongst the best in the world (Georgetown Institute for Women, Peace and Security, 2019). Gender equality is present in all aspects of life (what helps again is a good organization of society with a lot of childcare provided) and hence gender equality is very much present on the working floor as well (Chen, 2014).

The fifth element is a consequence of the former element: egalitarianism. Everyone is respected as a person and so are everyone's ideas (Chen, 2014). This leads towards the last distinguishing element which is a propensity towards innovation (Andreasson and Lundqvist, 2018).

Generally speaking Scandinavian countries are reasoning countries rather than affective countries, and especially the younger generations who might not have the same perspective on how well their societies are functioning (Chen, 2014). Another element that is important to take along is the fact that Scandinavians are convinced of the universalism of their leadership (it can be applied in any other country, outside Scandinavia as well) (Andreasson and Lundqvist, 2018). Examples of this universalism are the successful application of Scandinavian leadership in major international companies like IKEA or NOKIA, in any part of the world. Not only have they been successful in implementing their leadership style and organizational cultures in other countries as well, even where there is a fundamentally different leadership style, like in France for example (Andreasson and Lundqvist, 2018), they also are very proud of it.

Points of Criticism

It could appear as if Scandinavian leadership is all about rose scent and moonshine, but there also are some points of criticism. Sometimes it is described as "leaderless democracy" (Andreasson and Lundqvist, 2018, p.26), as it takes a lot of time to come to a decision. It can be looked upon as being too internally focused and primarily occupied with creating a fair distribution (of tasks, projects, …). So leaders might be seen as escaping from their responsibilities, with some passiveness. Taking up the universalism of the leadership style, it might cause a problem in other countries like again France, China or Europe countries other than Nordic ones (Andreasson and Lundqvist, 2018).

Is There a Future for Scandinavian Leadership?

As mentioned before, Scandinavian leadership is very much embedded in the local culture. Some elements of this culture and or leadership style will be more difficult to maintain

in the future, as the population is evolving towards more international cultural standards, moving towards Americanization of the culture in general and of the leadership style in particular.

Long term relationships and hence complicated and complex to maintain are the ongoing relationships with different stakeholders being the employees, the customers, the suppliers but also media, authorities, trade unions and local residents (Andreasson and Lundqvist, 2018). For a company with a US culture or leadership style it is much simpler, where making profit is the sole element of importance (Andreasson and Lundqvist, 2018).

The current leadership style is also supporting the core values of society, namely openness, integrity, trust. These elements were mostly originating from the common people, history and geography. With the recent immigration waves coming to Europe and Scandinavia as well, this might change in the future. Last but not least, employees are recognized to be very flexible thanks to the further (compulsory and higher) education they enjoy at a very low price. This educational model might also come under pressure, as costs arise (Andreasson and Lundqvist, 2018) as it is the case worldwide.

Conclusion on Leadership Style

As a conclusion on this limited literature review on Scandinavian or Nordic leadership style, I would say, that a specific leadership style exists in Scandinavian countries, very much embedded in the local culture and a result of the welfare society as well. Is this leadership style transformational? I would answer that question positively, as different aspects of transformational leadership, as detailed by Northouse, are present: high educational level, coaching style, propensity towards innovation. However, I wouldn't categorize the Nordic leadership style as being a creative leadership style, as defined in Creative leadership: "the kind of leadership that is forged through a desire for change, and not the generic form of change,

rather a desire to deliberately bring something new into existence." (Puccio, Mance and Murdock, 2011, p.28).

I also have looked into another aspect that was of interest to me, namely the potential integrative thinking there could be within the Scandinavian culture. Again, when taking up an aspect Roger Martin proposes in *The Opposable Mind*, namely "If an existing model, didn't meet their standards, the model would have to change, because the standards wouldn't." (2007, p.72), this hasn't been the impression of mainstream thinking I got from the literature reviewed. This is important for the next step in my process, when deciding whether to choose a Scandinavian partner or not.

A Nordic Partner for the Master's Project?

Will I choose a Nordic partner for my Master's project? Before answering the question directly, I have to make a premise, as in the context of my Master's project I have conducted a collective PPCO with five creativity colleagues on January 18th in Amsterdam, The Netherlands on the question whether to submit the project to the European Commission in March 2020 or in March 2021. A PPCO is a converging tool that looks at the pluses, the potentials, the constraints and the overcomes of the constraints of a given situation. In this case, the question thought about was: will the ERASMUS+ project be submitted by March 21st 2020 or March 21st 2021? The five people have given their opinion and in conclusion, the outcome of this PPCO has been to postpone the submission to 2021.

Coming back to choosing a potential Nordic partner, before doing the PPCO I would have answered negatively to the question whether to have a Nordic partner or not, as being so short term, the potential negative effect of slowing the whole process down would have been

decisive. Now however, with the new deadline coming up only in 2021, it might be of interest, precisely because culture and leadership style are so different than in other European countries.

If a Nordic partner were to be considered for the Master's project, the next question would be on the transformational potential of the culture and leadership style, as the content of the project is about innovation. Although the different elements of Nordic leadership (propensity towards innovation, coaching style, respecting everyone's ideas) could lead to a positive answer, the literature consulted wasn't detailed enough on the transformational aspect as described by Bass and Riggio (2006) to take an enlightened decision. On the basis of this limited literature review, I would take the decision of not considering a Nordic partner, regardless of nationality, unless their added value would be substantial towards one of the elements of the framework I am developing.

In the summer of 2018, I went to Copenhagen (Denmark) in order to prospect the United Nations for my business and obtained information on the Danish Foundation for Entrepreneurship. They are developing entrepreneurship teaching and strengthening young people's competencies in self-employment, innovation and entrepreneurship (retrieved from www.ffe-ye.dk). Apart from being a small organization and hence easy to approach on a personal basis, they seem to be active in several domains I would be interested in for this matter. Their Progression model is an example of Nordic leadership as it tries to close the gap in competencies students graduate with and the competencies desired by employers.

As described in the article on Entrepreneurial leadership (Azam Roomi and Harrison, 2011), the methodology used by The Danish Foundation for Entrepreneurship is based on four principles: action, creativity, progression and attitude (self-efficacy, ambiguity, accept failure and ethical values) (Rasmussen and Nybye, 2013). These principles are the same as the ones I

am using in the framework I am developing, so there could be an interesting match with this potential partner.

Action Plan for Contacting the Potential Partner

As the ERASMUS+ project needs an application done by an academic partner, I will first have to convince the academic partner I have in mind (in Italy) before starting to influence or convince this potential Danish partner.

A good preparation is already half the work done, so I need first to develop the framework as such a bit more before contacting these potential partners. Contacting the Danish partner will be quite easy, as I already have identified the contact persons and I have a potential introduction as well.

As I decided to postpone the deadline for submission of my project to the European Commission to 2021, I am not sure whether it will be possible to contact this potential partner before graduation, but everything is ready to do so. I need, however, to retrieve information on a few specific elements and I might be able to do that only by contacting them. If I contact them it is with the clear intention to convince them to participate in the project, and according to Grenny, Patterson, Maxfield, Mc Millan and Switzler, I might want to understand what motivates them personally, how I could help them master new skills and how I might help them to change their behavior (2013). I will definitely take this advice with me, preparing a potential meeting with this organization.

Section Five: Key Learnings

The main learning I have had during this five month journey is that what started as a short term project, now has transformed into a long term project. And instead of putting the framework on the market at once, I see now possibilities of putting different sub-products on the market. I am not sure yet that this would be the best decision, but at least I see a third option and many more might follow, as proposed by Roger Martin in *The Opposable Mind*.

Important partial learnings have been the following: my Foursight profile being a Driver, I have tendency to jump from an idea directly to implementation. In this case, it would have been wise to start with a bit of clarification before even proposing the subject as a potential Master's project. It still seems worth bringing the project to an end, but a bit of clarification could have helped me to maybe choose another, more contained subject.

A second important learning has been that there is always a difference between theory and practice. In theory I can submit the proposal, in practice it is better to be part of an academic institution. If I want to be coordinator of such a project, it will only be possible having a position in a higher education institution in Europe. So the question is whether or not, I want to be the coordinator of the project.

Another important key learning has been the comprehension of the difference between what open and free means in terms of how to handle these challenges. What also helped a lot was to understand what intellectual property is about and what is not regulated by intellectual property rights.

The PPCO made me understand that I also could start smaller projects already, without the huge amount of administrative work behind it. In this case, I am clarifying the possibility of organizing a Joint Master or a double degree between the different potential partners. Although it

seems as if this is also a huge project, there are smaller options. It would be the same amount of work if I again would try to put it under the EU umbrella, but if not, this seems a lot easier to do. Therefore it is of enormous value that several potential partners of this new project already have experience with this kind of process.

The e-learning design course has been of big importance as well, as it has made some concepts I was using intuitively, more explicit, like backward design or designing for all for example. It has opened a new world of teaching, which I enjoy a lot. It is all feasible and not that hard, and it makes us, instructors, think more (again) of what we are doing and how we are doing it.

I am also more convinced of the fact that graduates in Creativity have to have the courage to introduce play much more, being backed up by more than fifty years of scientific research. We just need to be courageous enough to make our case, to go against the non-play attitude of adult society. Therefore, more links between pedagogy and gamification ought to be researched. I might do that if I pursue the idea of doing a PhD at some point in future.

I also learned to apply integrative thinking more (Martin, 2007) making different courses work together to come to one same result. In a way, I have handled the whole project and my time more efficiently, and it has opened up possibilities to handle it more effectively in the future.

I also have learned to consider research with more respect, as it is not easy to be neutral towards a question until the results come out of that research, and the next phase of ideation can be started. This learning has also strengthened me in being even more convinced to work together on this kind of techniques. When done just by yourself, it is too easy to have the pitfall of interpreting too soon and too easily.

Confronted to these first difficulties, I have been agile and turned to another potential project of organizing an ERASMUS MUNDUS Joint Master, which is another possible project inside of ERASMUS+. I investigated again what were the possibilities and the potential partners, and the same difficulties were present. So, time is a main aspect in this kind of preparation. It is just not possible to do it quickly. Too many partners and various departments within the potential partner institution are involved. These are complex projects, which need to be developed well in advance, there is little space for improvisation or iteration.

Finding suitable partners is also not just a matter of content, there is also a formal suitability to respect, as the different partners have all their own agenda and reputation they want to protect. Putting together already five potential partners is already very complex, let alone when there are ten or more partners that need to find a suitable solution.

Section Six: Conclusion

In conclusion I would say it has been an interesting journey to work on this project, with different unidentified challenges coming up along the way. I had my personal goals of bringing together partners specializing in entrepreneurship education and creativity, I preferred to be the coordinator of the European project and I wished to submit it in 2020.

It turned out that it was utopic to try to submit in 2020, that although the needs analysis and the identification of Scandinavian partners turned out to be very feasible in theory, the identified Northern European partners didn't match the criteria of the (bigger) Southern European partner and that the administration nipped the project in itself. As such, it has therefore been interesting to meet people, to ideate on the way, and to pivot the project first to a Joint Master, and then to a double degree, which is very much supported by the Italian and US faculty staff. I will continue to work on this project beyond graduation of the Master's degree to contribute to spread creativity in the world.

A third conclusion has to do with the underlying framework on gamification of higher education as a whole: I have realized that gamification can contribute to the innovation of higher education, but that there might be no need for gamifying the complete process. Some aspects can be highlighted and certainly make sense.

If considering to submit a European project in the future, I will certainly take the time to clarify more the project that needs to be submitted, by contacting potential partners before even thinking of submission, and by contacting them one by one and expanding the partnership gradually.

Actually, this project has given me a sense of reality, respecting more the little steps instead of appreciating only the big, strategic ideas. Sometimes things just have to start small and be better prepared in advance in order to succeed. That seems to be a promising insight for the future!

The current world conditions make it surreal to work on this project for the moment, on the other hand, there is a clear promise in it, consisting of continuing to spread creativity in the world, with the development of the double degree between Italy and Buffalo State College. It might take a bit longer, but we will definitely succeed!

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