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**A GAMIFIED MOBILE APPLICATION TO  
SUPPORT SOCIETAL PARTICIPATION  
OF YOUTH OF DIFFERENT CULTURES  
IN FINLAND**

Master of Science Thesis  
Faculty of Information Technology  
and Communication Sciences  
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# ABSTRACT

Vinod Kumar: A Gamified Mobile Application to support Societal Participation of Youth of Different Cultures in Finland

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Youth are always the major stakeholders of society, and they should be taught about the value of society as they are the future of every society. Country like Finland, where a significant population is of internationals, it is important to have more societal participation of youth for the right development of society and country. Although Finnish youth is the key stakeholder of this society but participation of youth of other backgrounds also has the significant value. It is significant to mention that previous studies have shown that Finnish youth are facing the challenges of societal participation due to lack of information, lack of social integration and lack of interest. Youth of age 16-25 from different backgrounds including Asian, Finnish, and European were invited to discover the reasons and challenges for societal participation.

The study has determined the challenges of social integration which includes shy nature of Finnish citizens, differences of language, lack of interest and lack of information about system and society. Gamification is an effective approach which is majorly appreciated by youth, and it could help in learning new concepts. Therefore, to support the youth in social integration and societal participation, the study has suggested a gamified mobile application which gives the opportunity to youth to integrate and to get information about societal participation with attracting gamified elements. Furthermore, mentorship could be the motivation and a way of attraction for youth in societal participation as they are facing the challenges of lack of information, shy nature and hesitance due to difference of cultures.

Keywords; societal participation, social integration, mentorship, gamification, youth

# PREFACE

The basis of this research study is derived from my eager of societal participation in Finnish society and my passion of UX designing and evaluation. Tampere University has given me the opportunity of finding out the challenges of societal participation in this country and suggesting a gamified platform for the youth through this research study.

I would like to express my gratitude and heartfelt appreciation to my supervisor PhD Jari Varsaluoma who has guided me at all the steps of this research study and always shown his concern and endless support as a mentor and supervisor during this study. I am grateful for PhD Kirsikka Kaipainen as well who agreed to be the evaluator of my research study. This study has given me some never forgetting learnings and experiences which will help me in my future career. I would like to thank all the participants for participating in this study and showing their true concern for societal participation.

Finally, I would like to thank my parents and friends for their continuous support and motivation to complete this research in due time.

Thanks

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Vinod Kumar

# Contents

1. INTRODUCTION .....	1
1.1 Background and Motivation .....	1
2. LITERATURE REVIEW.....	6
2.1 Societal Participation and its importance .....	6
2.2 E-Participation .....	7
2.3 Gamification and its elements.....	9
2.4 Gamification for Societal Participation .....	12
2.5 Mentorship.....	13
3. DESIGN OF GAMIFIED PLATFORM FOR SOCIETAL PARTICIPATION: STUDY 1 ...	15
3.1 Research Method .....	15
3.2 Participants.....	16
3.3 Initial Concept.....	17
3.4 Procedure and instruments.....	24
3.5 Data Analysis .....	25
3.6 Interview Results .....	25
3.7 Concept Evaluation Results.....	35
4. DESIGN OF GAMIFIED PLATFORM FOR SOCIETAL PARTICIPATION: STUDY 2 ...	42
4.1 Concept Iteration .....	42
4.2 Analysis.....	52
4.3 Results .....	53
5. DISCUSSION .....	58
6. CONCLUSION.....	61
REFERENCES .....	62

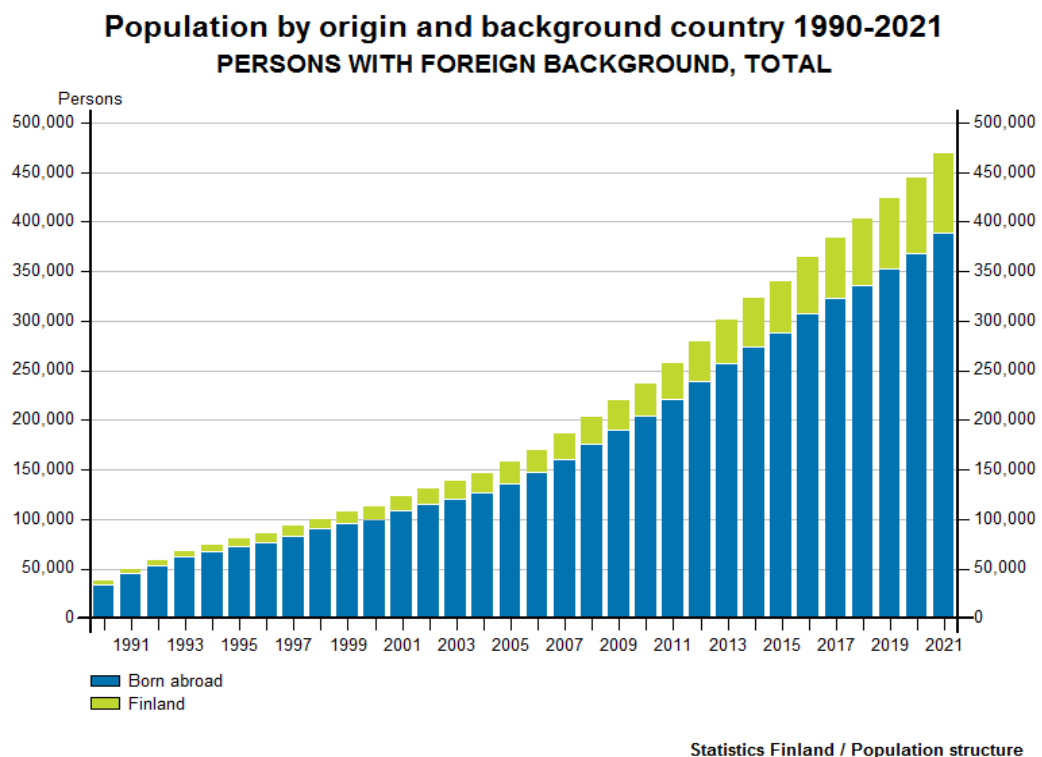
# 1. INTRODUCTION

This chapter explains the basic idea of the topic, which is societal participation for youth of different cultures in Finland. Societal participation refers to the participation of people where they give their inputs in surveys, polls, discussions, and policy making of a society. As there are people of different cultures living in Finland, it is also a problem to integrate into Finnish society for internationals which indirectly affects societal participation. Whereas to integrate into any society, it is important to develop a network and participate in social and cultural activities under some mentorship (Mendez, 2020) A right mentorship can help you in understanding the new language, can assess you integrating into society, and can familiarize oneself with Finnish culture. This covers the motivation for researching this topic along with the importance of mentorship for the youth of different cultures in Finland.

## 1.1 Background and Motivation

Societies are made by their people and their involvement. We have seen that the top societies of the world have gotten success when their people have put enough effort into them and have worked for them with unity. Societal participation is an important factor to sustain in the modern world and those societies that don't have support from their people face large challenges, therefore, societies need to increase societal participation to achieve their goals. Societal participation refers to the participation of people who give their inputs in surveys, pools, discussions, and policy-making of a society. It can be said that the societal participation of youth of different cultures is helpful for societies in making the right growth and adopting effective policies. To be actively part of any society, social integration is necessary and international people usually faced difficulties in making this. Every international while moving to another country faces three dimensions i.e., social integration, economic integration, and identity integration, therefore, integration is important to incorporate into any society or to get familiar with the culture, rules, and language of that society. A country like Finland, where 8% of the population is foreign nationals (according to OSF), values a lot to the foreigners but integrating into society is not easy for many. One of the motivations for conducting this research is to create a platform where the youth of different cultures can integrate into society and can make societal participation.

According to the Official Statistics of Finland (OSF), Finland is one of the renowned countries in Europe whose 8% population is international, which shows societal participation of internationals is also highly valuable for Finnish society. As per the survey of 2021, the population with a foreign background is more than 450,000 which shows 8 to 10 percent of the total population of Finland as shown in Figure 1 (Official Statistics of Finland, 2022). Moreover, it is also predicted that by 2035, the population of foreign nationals may increase up to 26% of the total population of Finland which is a big factor in the societal participation of foreign internationals. Therefore, the societal participation of youth of different nationalities and cultures possesses significant value for the welfare of society.



*Figure 1 Population of Internationals in Finland*

*Source: [https://www.stat.fi/tup/maahanmuutto/maahanmuuttajat-vaestossa/ulkomaalaistaustaiset\\_en.html](https://www.stat.fi/tup/maahanmuutto/maahanmuuttajat-vaestossa/ulkomaalaistaustaiset_en.html)*

Societal participation can be of different forms but looking at the current trends and needs of society, societal e-participation will bring more value and motivation for youth as it requires less physical effort and more mental effort. There are various e-participation platforms, that are used to engage people in public service delivery and decision-making by using information and communication technologies (Macintosh, 2004). It can also be referred to as a way of creating interaction among people and public administration as a social activity with the help of ICT (Sæbø et al., 2008).

Using elements of games for learning is not a new idea but it is quite progressive and effective as it helps in learning difficult concepts easily (Khaitova, 2021). There are examples of online learning platforms in which different elements of games are used which motivate students learning. However, gamification is known as the usage of game mechanics for non-gaming applications or platforms. Gamification refers to the application which is used to enhance services, systems, activities, or engagements using gamified elements to motivate and engage the users. According to Bitrián, et al., (2021), the main goal of gamification is to increase the interest and engagement of users by using gamified elements such as a leaderboard, feedback, badges, challenges, and others. In the current modern world, gamification is widely used in different industries like education, business, marketing, and healthcare.

The usage of gamification in societal e-participation can help societies in getting youth's input on different issues as it brings motivation for youth and helps in taking realistic decisions for society with the societal participation of youth. There are different studies available that have covered the issues of lack of societal participation or social exclusion for internationals. According to Hästbacka et al., (2016), there are barriers and facilitators for societal participation of disabled people which restricts the societal participation of disabled people. There are various challenges to societal participation which cause difficulties in adopting the right policies for society. Lack of interest, lack of knowledge, and lack of resources are one of the few most common challenges which reflect a lack of societal participation. There should be proper education about societal participation for youth as a lack of knowledge and understanding in decision-making is still a challenge for youth (Ten Brummelaar et al., 2018). Societal participation of youth could be affected due to a lack of knowledge and guidance; therefore, it is important to educate the youth about societal participation. These studies show that lack of participation has been an issue for societies that needs to be resolved and there is some research gap in analyzing the societal participation of youth.

This study will explore how gamified digital platforms can motivate the youth of different cultures and increase their societal participation. Using different gamified elements at the digital participation platform, we are aiming to engage the youth to have discussions on relevant topics and give their valuable input for decision-making. Other than this, the platform will be effective for the youth of different cultures residing in Finland and Finnish mentors to make their social connections, to get knowledge about ongoing public events, to be a part of policies and decision-making of society, and to get mentorship of Finnish people for different societal activities. To motivate the users, gamified elements will be used such as leaderboards, badges, scores, levels, and competition to bring more interest in youth in

societal participation. The study will also analyze the impact of gamification elements on the motivation of youth of different cultures.

Therefore, to increase the societal e-participation of the youth of different cultures, we have decided to conduct this research study to find out how a digital platform using different elements of gamification and the key feature of mentorship can increase the societal e-participation of the youth of different cultures and how it motivates the youth of different cultures for societal participation. With this research study, we are also aiming to motivate the youth of different cultures for societal e-participation so that more influential and righteous decisions can be taken for the welfare of Finnish society.

Societal participation of youth of different cultures in Finland is an important topic for Finnish society as limited research has been conducted on this topic, therefore, this research study will fill out the research gap of societal participation of youth. By analyzing this research topic, we are aiming to design a digital gamified platform that can motivate the youth to take an interest and do societal participation regularly.

#### Research Objectives

There are three main objectives of conducting this research study are

- To increase the societal participation in Finnish Society
- To motivate the youth of different cultures to do societal participation
- To analyze the gamification elements for supporting societal participation

#### Research Questions

1. What are the challenges and benefits of integrating into Finnish society for youth of different cultures in Finland?
2. How can Gamified Application increase the societal participation of youth of different cultures within Finnish culture?
3. From youth perception, will mentorship be beneficial for societal participation?
  - What can be the motivation to provide mentorship?

#### Structure of Thesis:

In the first chapter, there is a brief discussion about the background and motivation for conducting this research study. This chapter also includes the research questions and the objectives of conducting this research. In Chapter 2, literature related to this research has been discussed. The literature starts with the importance of societal participation for youth of different cultures residing in Finnish society. However, it further analyses the importance of gamification and its elements. The usage of gamification in societal participation is also



discussed along with the analysis of mentoring approaches. Chapter 3 describes the methods of collecting the data and approaches of conducting this research study. It analyses the initial concept which was presented in interviews. Furthermore, an analysis of data is also conducted covering interview results and concept evaluation results.

Chapter 4 of this master's thesis covers study 2 of the design of a gamified platform for societal participation in which iterated concept design is briefly discussed. It also covers the analysis of iterated concepts and the results of concept evaluation. Chapter 5 refers to the discussion in which the findings of research questions is discussed along with limitation and future work for the study. Chapter 6 is the last chapter which covers the conclusion of the overall thesis and findings from this study.

## 2. LITERATURE REVIEW

The literature review is the secondary data collection method of this research as it studies the previous work related to the research topic through studying published research articles and journals. The effectiveness of societal participation analyses in this part along with the future of digital platforms for e-participation. The literature also discusses gamification, its elements, and its possible usage in societal participation. The literature further determines mentorship and its importance in achieving different targets.

### 2.1 Societal Participation and its importance

Societal participation is referred to as the participation of individuals in certain activities and programs which benefits society and individuals as well. Societal participation leads to participation in a process that is designed for the betterment of society, and it could be of all means, like it can for voting on any bill, discussing any political issue, suggesting solutions to any problem, or helping individual/government/organizations in making the right decision for society (Pietilä., 2019). According to Hästbacka et al., (2016), societal participation can have different meanings and it can be used based on the need.

Societal participation has a broader angle, and it covers interpersonal interaction and participation in civic life (United Nations, 2006). Societal participation is a general term that shows the different modes of participation of an individual in societal activities and programs. Hästbacka et al., (2016), determined that societal participation should be taken as general and does not refer to any specific participation, but it also incorporates the major fields like participation in physical activities, decision-making, and labor market, where people share learning experiences and spends quality time together for discussions (Törnbohm et al., 2013). Therefore, participation is not only stung to sharing the same environment, but it also covers the sharing of experiences, genuine interaction, and involvement in the community. It could be understood that societal participation is important not only for people but for society and the community as it can create a better understanding of the needs and aspirations of society.

Participation in society cannot be restricted only to sharing information about society's work and policies but it is more like a discussion or dialogue between people and decision-makers of society. There is some misconception regarding societal participation and social participation and to make it clearer, Pietilä, et al., (2021) discussed that societal participation covers political participation where individuals vote in elections or protest for political gains,

but also includes the whole social change process including, legislation, voting, finding solutions for problems, discussing strategies, and raising voice for the betterment of society. Every individual has the right to discuss their needs and it is necessary for them to participate in the conversations to take decisions for their society. Through participation in societal activities, individuals can make society better for themselves. The other crucial factor of societal participation is it empowers decision-making by adding more diverse perspectives. It is understood that societal participation should include people of different ages and perspectives and especially youth, because the involvement of youth in society may lead to a better future. The example mentioned in the study done by Meriläinen and Piispa (2020) for societal participation of vocational school students identifies that young people could participate in activities like climate change by using digital platforms, consumer behavior, and grassroots activism (Pietilä, et al., 2021).

Societies that do not allow diverse perspectives are affected badly as decisions are only being taken for the betterment of that specific perspective but not for the community. Therefore, to empower decision-making and to make the right decisions, the participation of people of different perspectives is required. Moreover, the engagement of people in the community is also important as it increases transparency because when there is societal participation, the decision-makers must bring transparency in their decisions so that participants can feel the value of their participation. To motivate people for societal participation, it is important to create interest among them and reduce the barriers to societal participation. Hästbacka et al., (2016) mentioned that these barriers cover some factors of people's life which cause hindrances for people in making societal participation. According to WHO (2011), to reduce these barriers and to increase societal participation, officials need to provide the necessary services and access to technological devices which support societal participation.

## **2.2 E-Participation**

Participation can be of different types, but e-participation is referred to as the active involvement of individuals in society using information and communication technology (ICT) (Macintosh, 2004). E-participation is not only restricted to the internet, but it covers different online content and services. In this modern world, where accessing the internet has become easy, societal participation has become easier and more valued because by making participation digitally with the help of the internet and other online services, participants can play a key role in societal activities. With the evolution of technologies, societal participation has become easier as now people can do their participation from anywhere at any time using digital platforms which were not possible before as they needed to do it physically. According

to Welch, (2012), the key feature of e-participation is to raise citizen engagement for decision orientation and deliberation using technologies as it is also referred to as a branch of e-government. The term e-participation is the combination of “e” and “participation” where “e” refers to the internet and “participation” is defined as taking part in the decision-making of government/administration and joining different activities and discussions of the community (Pietilä et al., 2019).

According to Le Blanc (2020), e-participation is now being used across the world as it has become an instrument for the e-government toolbox. Governments require some role to play by introducing e-participation platforms for all types of societal participation and making it available for the public as earlier e-participation does not cover those political discussions which do not have the government’s involvement. In e-participation, there are three different targeted audiences including public administration, policymakers, and stakeholders who have to play their role in making improvements in society. In simple words, e-participation can be defined as the engagement of individuals and the government in different tasks for the welfare of society using different technologies. Le Blanc, (2020), mentioned that e-participation is getting high value around the world as it covers both intrinsic and instrumental reasons which show its effectiveness. Instrumental reasons cover the improvement of policies and legislation through e-participation, an increase in public service responses based on people’s needs, and increasing the government’s accountability (Peixoto & Fox, 2016). Whereas, intrinsic refers to the importance of participation because it can increase civic engagement and could contribute to making societies inclusive. It can be said that to make e-participation both e-government and participation are necessary. However, from a technological point of view, it can be called an effective strategy for enhancing digital governance.

E-participation usually covers the participation of youth as they are the main users of social media, the internet, networking technologies, and information and communication technologies. The societal participation of youth can be enabled through communication channels, information channels, platforms for creating and sharing content, and virtual spaces where different participation activities can be arranged. Youth e-participation is effective when the youth can access the information on a platform that supports their participation and a communication channel that helps youth in making communicate with all the stakeholders of society. This study is aiming to find a platform that increases the interest of youth in e-participation. There are distinct reasons identified by Meriläinen et al. (2018), who determined that key barriers to youth’s e-participation are; lack of interest in youth, lack of knowledge about e-participation platforms, lack of belief in the improvement and poor communication strategies between government and youth. Whereas Ianniello et al. (2018) classified the main points of such obstruction to be; community representation, group dynamics, attitudes of

officials, and ineffective data sharing. As the world is taking more interest in e-participation and it acquires a large value therefore, we are aiming to find out that does gamified applications for societal participation help in increasing youth's interest in societal participation. Ianniello et al. (2018) also mentioned that to get over these obstacles, it is required to bring diversification and involve people with multiple participation methods. It is necessary to understand the right value of e-participation as it should not be rated as political engagement, but it could be used for taking the right decisions for society with more participation.

## 2.3 Gamification and its elements

Rapp et al., 2019 determined that gamification has become an effective technique in human-computer interaction (HCI). According to Huotari and Hamari (2017), gamification is referred to as the transformation of services, systems, and activities which covers similar skills, experiences, and motivation as games. Deterding et al., (2011) defined gamification as the technique of using game elements in non-gaming contexts. There are many other definitions of gamification, but the simple understanding of gamification is a technique or approach of using gamified elements in any activity. The usage of gamification is spreading rapidly in all fields as it motivates users and helps people in understanding difficult concepts and subjects with the help of gamified elements.

There are various game design elements from which these few elements are widely used for motivating users to societal participation i.e., badges, performance graphs, avatars, leaderboards, points, and teammates. According to Bedwell et al. (2012), these elements can be manipulated independently of one another which helps in the detection of specific effects in gamification.

- I. Points: this gamified element is used to represent the user's progress as a way of feedback (Werbach & Hunter, 2012, Werbach & Hunter, 2015). It allows for measuring the in-game behavior of users and provides immediate feedback (Sailer et al. 2013) and it is rewarded after the successful accomplishment of activities in a gamified environment.
- II. Badges: it is also another important gamification element that is used as a visual representation of user achievement of accomplishing a specific goal (Antin & Churchill, 2011), (Werbach & Hunter, 2012). Badges are also a type of feedback based on the user's performance, and they can influence the user's behavior by leading them to attempt difficult tasks or challenges for achieving them (Wang & Sun, 2011).

- III. Leaderboards: this gamification element represents the user's ranking based on their performance and compares the performance of all users. It also motivates users by comparing and making regular updates of ranking. According to Burguillos (2010), leaderboards create social pressure on users which leads to increasing players' engagement and focus to perform better.
- IV. Performance graphs: this is another way of representing the user's performance and motivating the user. It is different from the leaderboard as it compares the user's performance with their preceding performances. Dweck, (1986) determined that the usage of a performance graph is beneficial in learning as it motivates proficiency orientation.
- V. Avatars: this element is interesting and makes regular addition to gamified applications as it provides the visual representation of users in a gamification environment (Werbach & Hunter, 2012). Different types of avatars can be designed by users in gamification environments which brings more interest in users. This element attracts users as they can create different identities and be part of the gamified community as they can design the avatars as complexly animated or three-dimensional.
- VI. Teammates: this gamified element creates competition and can induce conflict as there is more than one player, either real or virtual (Kapp, 2012). It also motivates users to create teams and play together for a specific objective.

According to Thiel, (2016), many developed applications have adopted achievement systems that help in getting extrinsic motivation for employees. Different Organizations are adopting different elements of gamification to motivate their employees, but gamification is not only about games. Nicholson (2013) determined that various supporters of gamification do not like the fact of adding badges or points for promoting interaction in an application. Adding badges and rewards for any activity reflects the fact that the specific activity is not valuable enough therefore, rewards and badges are used to attract users. The user might feel their actions are being controlled and they are expected to perform these activities when designers use the gamification elements as the call for action in their system operators. (Kohn, 1999) also determined that if the users are offered rewards or incentives, the quality of activity can be decreased which will lead to the replacement of intrinsic motivation with extrinsic motivation. Both intrinsic motivation and extrinsic motivation are the forms of motivation that help users in achieving their goals. Deci and Ryan, (2012) discussed that extrinsic motivation is the focus on achieving goals by getting external rewards whereas intrinsic motivation has the focus on accomplishing the task with interest and by getting some knowledge or skills.

From a business perspective, adding gamification elements may affect the value of the activity but on the other hand, gamification for learning can be quite valuable and effective. Gamified

systems can produce better outcomes than non-gamified systems as they provide motivation and bring the interest of users. The research on gamification has reached maturity as game mechanics can have an impact on individual behavioral outcomes. To improve the user experience of participants, gamification is characterized by adding different game mechanics including badges, virtual currencies, levels, points, and badges to applications and webpages. According to Chorney, (2012), these game mechanics are like tools that help in enhancing and complementing the content of video games. Gamification is getting more valued as the main goal of it is to create an application or operation which is more attractive, inspiring, and motivating for the users. However, McGonigal (2011) addressed the role of gaming and its adoption as a design of everyday life, and it can bring more value to learning.

Elements of gamification are characteristics that can be complex because it reflects progress but not the visual presentation (Deterding et al., 2011). There are different types of elements of gamification that are used in games such as badges, levels, leaderboards, and points, and these elements are classified into different levels of concepts. Gamification elements have different levels, and each element is categorized to a specific level. Gamified elements like leaderboard, levels, and badges are classified to first level i.e., used for interface designing patterns of the game as it covers the design solutions for a known problem and has successful interaction design components. Whereas in the second level, time constraints turn, and limited resources are classified as game design patterns and mechanics as these elements are used for reoccurring parts of game design. Game elements like clear goals, enduring play, and a variety of styles are classified into third level i.e., principles and heuristics of game design as it is effective in analyzing the available design solutions. However, for specific game design practices and processes, different elements are used by incorporating game design methods such as; play-centric design, play testing, and value-conscious design. All these gamified elements are used for distinct levels of gamification which helps in integrating and designing a conceptual idea or application (Cheong et al., 2014).

In addition to gamification elements, there are some design principles of gamification such as challenges, feedback, social engagement, and goals (Dicheva, et al., 2015) and all these design principles help in implementing the gamified elements. According to a study by Majuri et al., (2018), the elements of gamification should be divided into five different types: immersion experience, social interaction, progressive achievement, non-digital elements, and others whereas, challenges, badges, points, and leaderboards are the most common gamified elements. However, gamified elements can be categorized by applying different theories of psychology such as; expectancy-based theory, self-regulation theory, operant conditioning theory, and self-determination theory (Landers et al., 2019). To encourage the students for taking the challenging tasks, the leaderboard can be applied as gamified element with the help

of self-regulation theory whereas; self-determination theory can be useful for explaining the effectiveness of badges in satisfying the student's needs. Hence, All these gamified elements are effective in motivating the users to participate and take more interest in competition.

## **2.4 Gamification for Societal Participation**

To engage or to motivate citizens in societal participation, gamification can be used as an effective approach. According to Deterding et al. (2011), gamification in societal participation is to induce engagement of people by adding game elements to non-gaming contexts. Gamification in societal participation is an interesting concept as it attracts people to give their input by having competition and a reward system. It is an effective approach to crowdsourcing, health management, education, and production management (Koivisto & Hamari, 2019). This approach can also be effective in societal participation as it may increase people's engagement in civic work and improves communication between government and stakeholders. Gamification for societal participation can be effective when different gamified elements are used to attract people to participate in societal activities.

Gamification elements at once are effective in increasing participation but on the side, it can demotivate the public to make engagement due to competitive strategy and social pressure. The research on reward-based gamification indicates that social aspects are encouraging for the public as it provides the opportunity of interacting with other users and make connections (Hamari & Koivisto, 2015). Gamified applications help users through fun and entertainment for learning and help decision-makers by providing a large window of experiments for learning. According to Duke (1995, 2000), one example of learning through gamification was METROPOLIS, which is like a simulation game, and it was created to introduce city planning and make effective learning for the users through gamified elements. Whereas Klamert and Münster, (2017) determined after reviewing the approaches of gamification for urban planning, that it can be effective for civic learning. There is a significant difference between a game and a gamification approach as the game covers the complete set of gamified approaches which are used for designing a game after all the amendments and iterations (Sguelo, 2017).

The implementation of the gamification approach in societal participation has the aim of motivating people to participate and increasing collaboration because it can help in decision-making along with continuous analysis and monitoring of projects for future engagement needs (Klamert & Münster, 2017). Hassan and Thibault (2020), discussed that individuals and government can also implement gamification as it can be implemented with fewer resources compared to designing full games and it also allows citizens in maintaining and initiating civic communication and activities. Hence, a gamified digital platform for societal participation is



like a digital engagement with decision-makers which can influence the engagement of stakeholders (Coronado Escobar & Vasquez Urriago, 2014).

## **2.5 Mentorship**

Mentorship refers to the approach of guiding or consulting someone to perform any task or deal with an issue. Looking at the current challenges of societal participation and trends of gamification, mentorship could help the youth to actively participate in societal participation and social integration. According to Mendez (2020), mentorship is also referred to as a relationship between a less experienced person and an experienced person who has more knowledge and experience and who guides that person. It is also known as an effective tool for developing relationships and transferring knowledge (Kahle-Piasecki & Doles, 2015). Mentorship is different from coaching as the focus of mentorship is to make long-term personal development. Mentors always mentor the person for motivation, to advance in the topic, and to make the right development.

Mentorship is widely used by different organizations and universities for career development as some education sectors like the University of Helsinki and the University of Oulu are offering mentorship programs to both international and national students in Finnish and English languages for their study benefits, the course selection and for working life, Seinäjoki University of Applied Sciences has also taken the mentoring initiative as they also offer the mentorship programs to their students to provide practical information, to increase the future aspirations of their professional life and to promote network (Mendez, 2020). It shows that mentorship has significant value and education sectors and other organizations want to use it to help people with the required support.

According to Jekielek et al. (2002), mentorship was founded based on the idea of helping young people through the guidance of caring and concerned adults so that they could become successful by themselves. In the current world, there is a large number of mentorship programs that help people in getting their goals and making improvements as the youth is associated with different developmental outcomes and mentorship programs. Mentorship is effective and beneficial for young people as it helps them to reach their goals with ease and perfection. DuBois et al. (2011) identified that mentoring is an intervention approach, and it leads to getting favorable findings for youth, moreover, to effectively apply this approach to youth, it is necessary for administrators, policymakers, and organizations to make better coordinate their efforts and ideas. The studies show that by using this approach, youth can get the required support in different sectors and programs.

To summarize this, the literature section covers research on societal participation and its importance for the development of society which shows that it is the participation of people of different modes in different activities and programs of the society. It has all the importance as it empowers decision-making and helps the officials in developing society. Societal participation could be achieved through people of different ages, but the societal participation of youth is quite significant as they are the future stakeholders. In this modern era, all governments and organizations are leading to digitalization therefore, societal participation should also be digitalized as it could raise citizen engagement without much effort. The literature further identifies that societal participation with gamification could be an effective approach for crowdsourcing, engagement of people, and health and production management. However, the importance of mentorship is also covered in the literature review and researchers have rated this as an intervention approach that could guide or support the youth to reach their goals.

### **3. DESIGN OF GAMIFIED PLATFORM FOR SOCIETAL PARTICIPATION: STUDY 1**

This thesis study explores the need of social integration and motivation of societal participation among youth (16-25) of different cultures in Finland and the importance of mentorship to help the youth. This study is aiming to propose a solution for increasing societal participation and helping the international youth to integrate into society with the help of a multi-lingual digital platform with gamified elements. The focus area of this research study is social integration, societal participation, mentorship, and creation of digital gamified platform for the youth of different cultures living in Finland. The target group is based on three different cultures as Finnish people are the main stakeholder of the society and other two cultures; Asian and European cultures have high ratio in international population living in Finland. To explore this further, the following research questions were created.

RQ: 1 What are the challenges of integrating into Finnish society for youth of different cultures in Finland?

RQ: 2 How can Gamified Application increase the societal participation of youth of different cultures within Finnish culture?

RQ: 3 From youth perception, will mentorship be beneficial for societal participation?

RQ: 3.1 What can be the motivation to provide mentorship?

#### **3.1 Research Method**

This study includes the two methods of data collection i.e., primary method and secondary method. In Primary data collection method, researchers use interviews to identify the main themes of the topic. However, in secondary data collection method, I studied research articles, journals, and related research material. Both primary and secondary data collection methods have significant value for the research study as they help the researchers in identifying the public view, indefinite knowledge about the topic and the previous related information about the selected topic. This research study has used both data collection method as previous relatable knowledge and work were analyzed and discussed in the literature section while; interviews were also conducted from targeted youth to determine their views about societal

participation, social integration, mentorship and suggestions for improvements of initial concept design.

### 3.2 Participants

The data for this research was gathered through qualitative interviews by 15 participants (5 from each culture) aged 16-25. Eight of were male (53.3%) and seven participants were female (46.67%) and all the interviews were taken online through Zoom. Following are the details of the participants participated in the data collection process:

*Table 1 Information of participants*

<b>ID</b>	<b>Gender</b>	<b>Country</b>	<b>Interview Method</b>
1	Male	Finland	Online
2	Male	Pakistan	Online
3	Male	Vietnam	Online
4	Male	Pakistan	Online
5	Female	Finland	Online
6	Female	Ukraine	Online
7	Male	Turkey	Online
8	Male	United States of America	Online
9	Female	China	Online
10	Male	Finland	Online
11	Female	Finland	Online
12	Male	Finland	Online
13	Female	Poland	Online
14	Male	Australia	Online
15	Female	Pakistan	Online

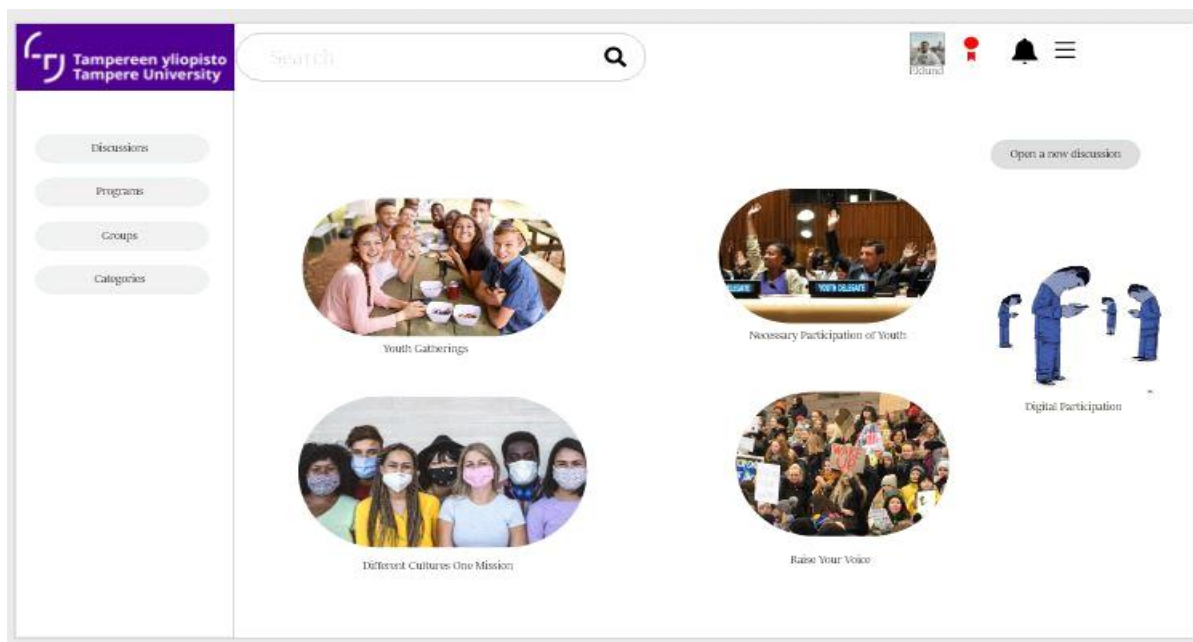
Respondents were inquired about their nationality. The sample group of the study was diverse in nature and represent the opinions of different cultures and nationalities living in Finland. The findings indicated that five respondents were from Finland, 5 were from Asia and remaining 5 respondents represents Polish, Ukrainian, Australian, USA and Turkish nation and culture.

Respondents were inquired about their stay in Finland. The findings indicated that five of the respondents were living by birth in Finland, five were living for less than three years and five of the respondents were living for more than three years in Finland. Also, the participants were asked about their plans of staying in Finland. The majority of participants are willing to stay in Finland and only one of the participants does not want to stay here in the future whereas the remaining were unsure about their future life.

The respondents were asked to identify whether they are active in participating in different societal gatherings and events. A range of diverse answers was gathered that are integrated into different reasons to participate in societal events and gatherings. 25% of respondents identified that they were involved in participating in voting and elections on a local and national level. Moreover, respondents also identified that their activity in societal events and gatherings was related to protests. According to the findings, respondents considered that involving in protests as their active state of societal participations. In addition, international respondents have similar activities as they were participating in different extracurricular activities like involving in games, writing clubs, social groups and gathering for immigrants, youth, and working with different social organizations having diverse social causes.

### **3.3 Initial Concept**

The idea to design this prototype is to support the societal participation and social integration of youth through digital system and to provide the mentorship service to youth which could help in integrating into society and societal participation. As this is the initial concept, the goal is to portray some idea to participants about this and inquire them about whole idea and its possible attraction and effectiveness for people. The concept design covers different programs of societal participation and social integration along with the service of mentorship which could help the youth in societal participation and social integration. The initial concept is designed by the researcher and all the ideas are self-mediative. To understand the needs of youth and to improve the further designing of this service, the initial proposed concept has been discussed with participants during the data analysis process through interviews. Figure 1 is the home screen of this digital platform which shows five main programs of societal participation for youth. The home page also has the page bar on the left and a new discussion option on the right side of the window. Moreover, the figure also shows the notification icon, menu bar, badge and user profile which shows the initial information about the user. A search bar is also presented in that screen where user can search about any program or discussion.



*Figure 2. Home Screen of digital platform for social integration and societal participation using gamified elements*

The left bar in figure 2 has four different options covering discussions, programs, groups, and categories. In the discussion section, the user discusses some issues or gives their input on different matters using gamified elements. In this section, the discussions are categorized on the basis of timing and importance as there are three different types of discussions such as latest discussion, top discussions (important) and all discussions as shown in figure 3. This discussion window shows the discussions topics, categories, input of users and top scoring of that discussion as these discussions have some scoring as well.

The screenshot shows a discussion forum interface for Tampere University. The header includes the university logo and name, a search bar, and user profile information. The main content area displays a list of discussion topics with the following data:

Topic	Category	Users	Replies	Views	Top Score
What three major problems do you think young people face today?			54	4	54
If you could ask Christ to change one problem in the world today, what would you like him to change?			28	8	28
If you could cure one type of disease, which one would you cure?			25	5	75
What do you think is the biggest problem in Helsinki and Why?			95	11	95
Why are we likely to be critical of how other people look?			7	12	7
What thing doesn't exist that someone needs to invent?			11	14	11

*Figure 3. Discussion forum on digital gamified platform*

Users can give their inputs in discussion and get points. To motivate the users, this discussion forum uses gamified elements such as scoring where users reply on any discussion will get some points. The user will also get the scoring if their comment or input is liked by other users as well. To motivate the users to participate for discussions, starting a new discussion also leads to some points for the user. Figure 4 shows the discussion and comments with some scoring as well.



























What three major problems do you think young people face today?

September, 29 at 02:19



Like Comment Score

	Limited information is an issue about youth. Youth is not getting the required information.			
	Limited information is an issue about youth. Youth is not getting the required information.			
	Limited information is an issue about youth. Youth is not getting the required information.			
	Limited information is an issue about youth. Youth is not getting the required information.			
	Limited information is an issue about youth. Youth is not getting the required information.			
	Limited information is an issue about youth. Youth is not getting the required information.			

*Figure 4. Discussion of users on societal participation*

To discuss different issues of societal participation or to raise any issue, they need to start the discussion on this platform. Figure 5 shows the user can start the discussion at any time by writing down the subject of issue and thread in the boxes shown in the figure. After posting this discussion, the new discussion will be shown in the latest discussion categories.



The screenshot shows the user interface for starting a new discussion on the Tampere University digital platform. The header includes the university logo and name, a search bar, and user profile icons. A left sidebar contains navigation buttons for Discussions, Programs, Groups, and Categories. The main content area is titled 'Discussions' and features a 'Subject:' label with an empty text input field. Below this is a 'Thread' label with a rich text editor containing a toolbar with icons for bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, and text wrap. At the bottom of the editor are 'Post' and 'Cancel' buttons.

*Figure 5. Discussion window while starting a new discussion*

This Digital Platform has the feature of mentorship as well which helps the user in heading to right ways. The mentorship feature could be used for both fields' social integration and societal participation by the youth. To use the mentorship feature, the user first selects the "ask for mentorship" option in the menu bar. After reaching into mentorship window, users need to first select the mentorship field as shown in figure 6.

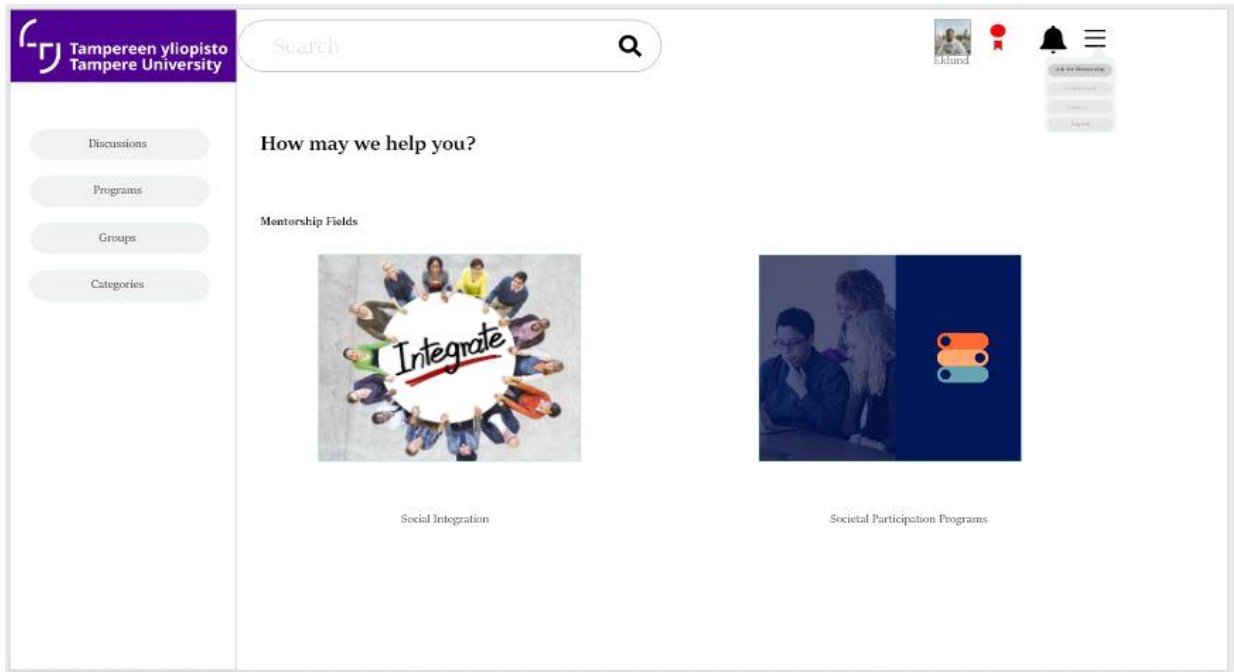


Figure 6. Mentorship fields on digital gamified platform for societal participation and social integration

After selecting the required mentorship fields, the users will get the options of available mentors as shown in Figure 7. The mentors are ranked on the basis of scoring and user can select the mentor based on their scoring and availability.

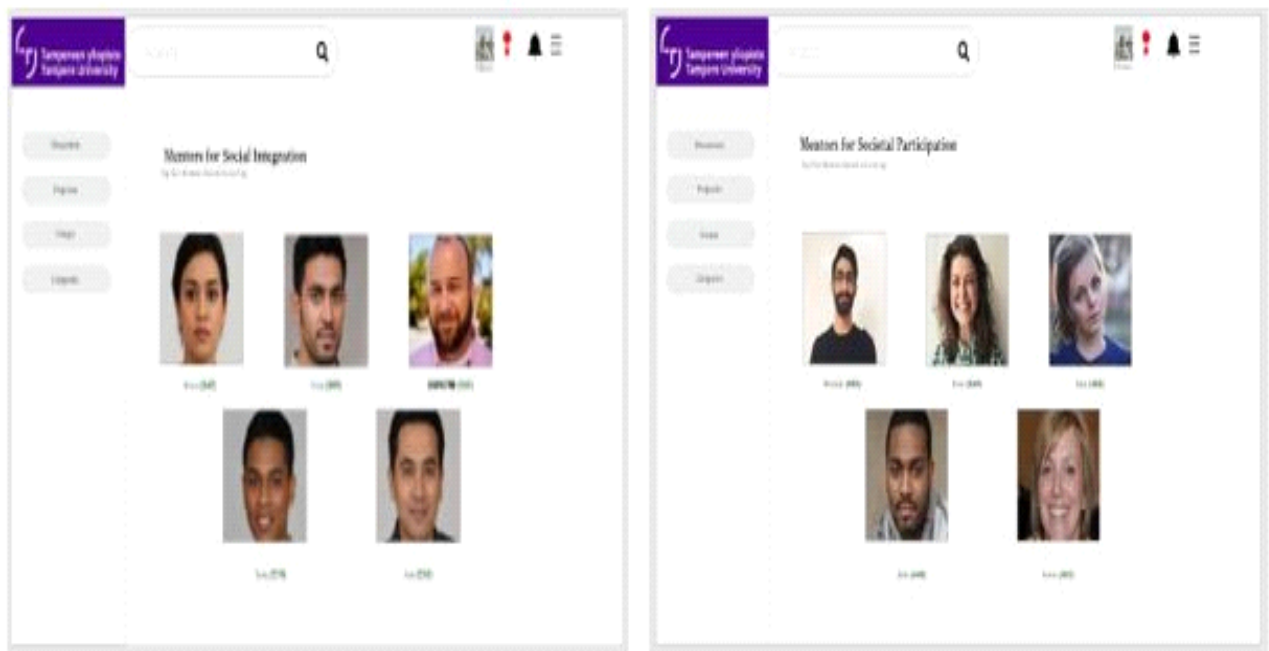
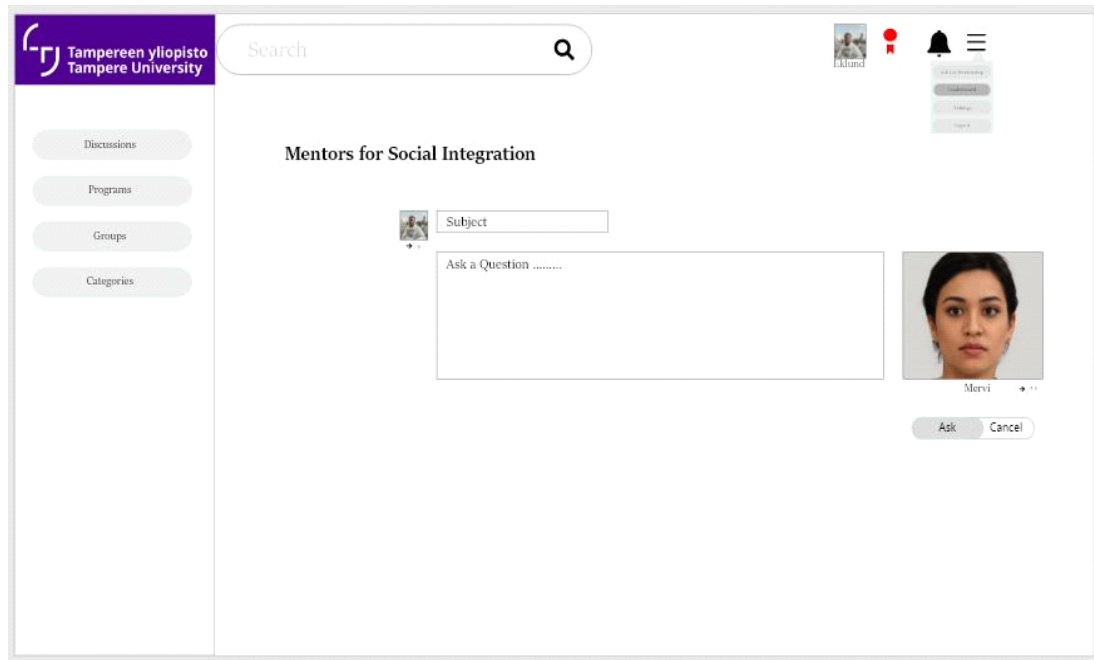


Figure 7. Mentors of social integration and societal participation

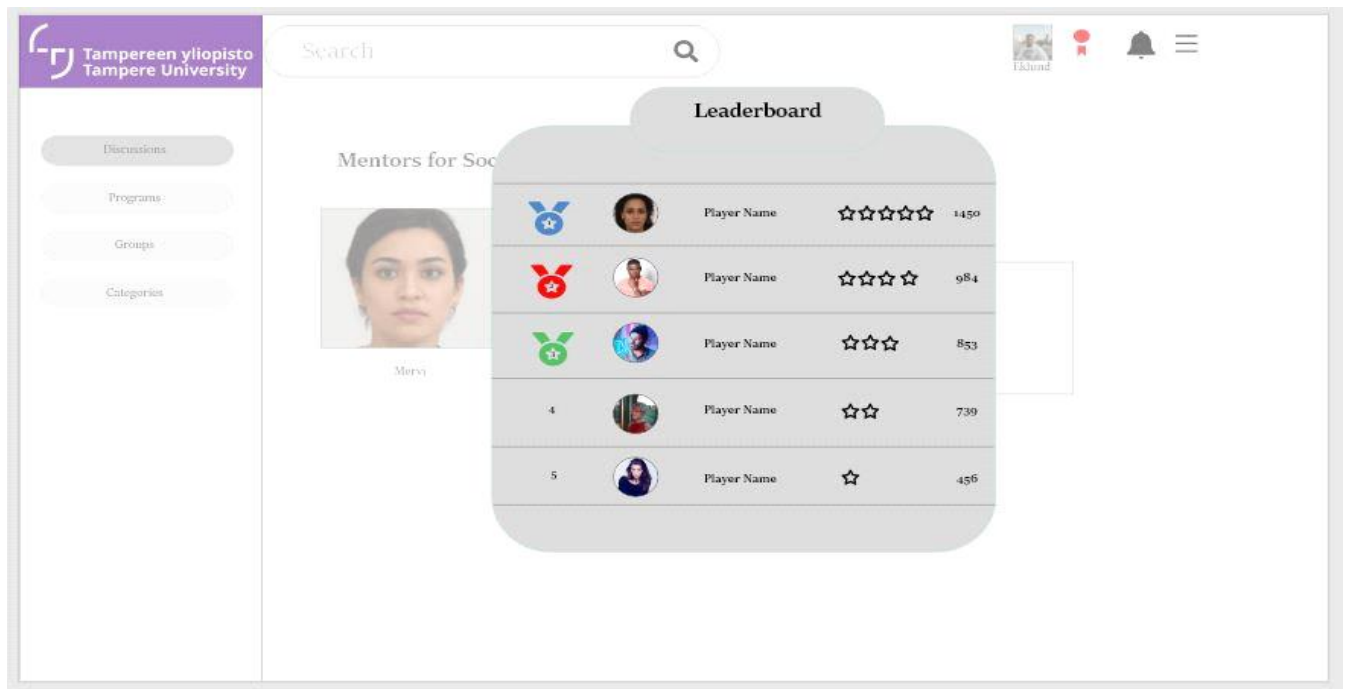
After selecting the mentors, the user could seek guidance or discuss their issues with them. Figure 7 shows that user need to put the subject while starting the question so that mentor

could understand the field of that question. To make it interesting for both mentors and users, scoring has been used. When the user asks for any help, he/she will lose some points and those points will be transferred to mentors as shown in figure 8. This scoring has been done to keep the mentors motivated for helping the users and to avoid unnecessary questions by the users from mentors.



*Figure 8. Asking from mentor about social integration*

Another gamified feature has been used to make it competitive for the users and to keep the users motivated. Figure 9 shows the leaderboard where users are ranked on the basis of scoring and badges. The figure shows the complete information of user on leaderboard including badge, name, scoring and stars. This feature has been used to motivate the users to be active on this platform and achieve scores and badges so that they could gain the top position.



*Figure 9. Leaderboard showing the top scorer of this platform*

To summarize all this, the concept has proposed programs for societal participation and social integration. To integrate into the society and to connect with youth, the discussion feature is also used on this platform where user could take part in the ongoing discussions and could start a new discussion. The feature of mentorship is also added in the concept in which mentors of societal participation and social integration are available. Through this feature, the user could seek mentorship by losing 5 points whereas, mentors will get the points for each mentorship. The concept uses gamification elements like points, badges and leaderboards to attract the user. Starting a new discussion, liking, or commenting on any discussion will give points to the user and help the user to be on leaderboards.

### 3.4 Procedure and instruments

This thesis study conducted a qualitative study with open-ended interview questions. A qualitative study covers significant information about all the topics and the participants share their views, ideas, and suggestions which is important for the research. The key reason for using this research method is to get the views and understanding of youth for societal participation, challenges of social integration, effectiveness of gamification, and need for mentorship.

The data acquired for this study through online interviews at Zoom and all the participants were acquired through convenience sampling. At first, all the participants were asked to fill in the consent form in which they claimed their ages between 16-25 and agreed to make the

recordings for this interview. The consent form assured the participants that their responses will be anonymized and will be used for only this thesis study purpose. Interview questions were sent to them one day before the interview so that they could share their views with precise answers. The approximate time for each interview was one hour and all the interviews were recorded for analysis.

The interview process covers two sections, research evaluation, and concept evaluation. In the first section, the respondents were inquired about the interview questions whereas, in the second section, concept design was presented and evaluated. The interview questions cover three main themes i.e. societal participation, social integration, and mentorship and these questions are available in appendix 1. The respondents were also briefed about the main themes of the interview before the questions. Concept evaluation questions were asked after showing the concept to the participant to get a real-time response and those questions are also available in appendix 1.

### **3.5 Data Analysis**

Each respondent has been given a distinct pseudonym to protect their anonymity for example; ID# 1.

Each interview was recorded and then afterward transcribed utilizing note-taking. With the aforementioned codes for respondents, separate transcripts were kept for each respondent. After the interviews were recorded and transcribed, a comprehensible format for the interviews was created, removing the repetitive information and other mistakes. Additionally, based on the concepts and thoughts expressed by the respondents, each intelligible transcript was analyzed and appraised for identifying various sub-themes and themes using excel.

To evaluate the concept, researchers first shared the concept and then asked questions. This concept analysis aims to discuss the results obtained regarding the concept and to understand the possible changes in the initial concept design. Thematic analysis is also used to analyze the response of participants about the concept design and to find out the possible changes in the initial concept design using MS. excel.

### **3.6 Interview Results**

Following are the themes that are developed against the questions that were asked from the participants participated in the data collection process.

## **Theme 1: Challenges of integrating in Finnish Society**

Considering the research questions of the study, respondents were asked to identify different challenges and factors that create hindrance in the process of integrating in Finnish society. Respondents responded to these queries with different responses identifying these challenges. Following subthemes are identified after detailed analysis of the interview transcripts.

### ***Subtheme 1.1: Language Barrier***

Majority of the respondents considered language barrier as an important challenge that hinders the process of integrating into Finnish Society as shown in Table 2. According to one of the respondents (ID#3) *“They have different languages, like language is the basic challenge for everyone”* whereas ID# 4 answered that *“The main challenge is your language, they don't get frank in English, and they don't adopt you in the English language”*. Language barrier is one of the major barriers of integration into Finnish society as international youth think that without language it is difficult to integrate in Finnish Society, as two other respondents (ID# 7 and ID# 10) said that: *“the biggest problem was the language, the language barrier was the biggest issue to gap the culture and get into the society”* and *“I think we have a big language barrier that it is difficult for foreigners”*.

### ***Subtheme 1.2: Shy Nature of Finnish***

The findings also identified that shy nature of local people of Finland is also a major challenge for the young people from different background living in Finland to integrate themselves into Finnish culture and society. The international respondents shared that making friends and socializing with Finnish people is difficult for them due to introvert nature of Finnish people keeping themselves distant from immigrants and other people with different culture and nationality. One of the respondents (ID# 11) said that *“...well I think that most Finnish people are quite a like a closed door so they don't get allow other people in very easily”*. Table 2 shows that 40% of respondents claimed that shy nature of Finnish people is a challenge to integrate as there is a perception about the Finnish people that they are quite shy and they don't open up for any conversation as ID#15 mentioned that *“the first challenge was for me to find friends because I've heard like Fins are quite shy”*.

*Table 2 Response of participants on challenges of integration in Finnish Society*

Participants	Challenges of integrating in Finnish Society	
	Language Barrier	Shy Nature of Finnish
	9	6

## **Theme 2: Hindrances in participating in societal activities**

Respondents were also inquired about the hindrances that they witness while participating in different societal activities in Finland. According to the findings of the study, language barrier, difference of culture and nationality, lack of information and resources and lack of personal interest are some of the important reasons that hinder the participation of young people from different backgrounds, nationalities, and cultures to participate in the societal activities happening in Finland. Following paragraphs details responses of the respondents:

### **Subtheme 2.1: Lack of Information**

60% of the respondents considered lack of information and resources are one of the major hindrances which deter the process of participating in societal activities in Finland as shown in Table 3. It is identified that limited knowledge about activities and the problem they are focusing refrain youth from the participating in the societal events. Therefore, ID# 2 shared that, *“I think it would be not knowing about the activity itself and I would say I'm not that knowledgeable about the problems. The root problems, so I may refrain from.”* The absence of information sharing about societal activities and programs alongside with top societal issues is one of the reason youth don't participate in societal activities as they don't have much answers. ID# 5 and ID# 6 mentioned that *“I think the knowledge because they don't know like there is not maybe like”* and *“I do not understand quite-well about what this society need...”*.

Moreover, the other respondents considered that lack of knowledge about the process of participating, limited resources and lack of information related to access of platforms create hindrance for participating in societal activities. In reference of that ID# 8 mentioned that *“Maybe people just not knowing what they can't do and what like they have the right to do”* whereas, the other respondent said that *“I don't know how to attend the Society activities”*. Lack of information is one of the major hindrances as many respondents mentioned this issue for not participating in societal activities. ID# 13 and ID# 14 also pointed out these hindrances respectively and mentioned that *“The lack of resources when it comes to Information source”* and *“finding the resources for that.”*

### **Subtheme2.2: Language Barrier**

According to the analysis of the transcripts, the most recurring aspect identified by the respondents regarding the hindrances in participating in societal activities is language barriers. Table 3 shows that respondents highly consider language barrier as an important challenge for integration of international youth into the Finnish culture and society. The responses of the respondents indicating language barrier as one of the important hindrances in participating in societal activities as ID# 5 mentioned that *“They might be just in Finnish language nothing just like or English but not everyone speaks just English”*. Difference of language between Finnish

and international youth is an important issue as it demotivates the international people sometimes to participate in societal activities. The respondent clearly mentioned the reason of not participating in societal activities in Finland is due to language as ID# 14 said that *“I think the language can be a big issue.”*

### **Subtheme 2.3: Lack of Interest**

Respondents think that lack of interest in the societal activities is a hindrance for increasing societal participation from the youth itself living in Finland from different nationalities and cultures. One of the respondents (ID# 12) responded that, *“I think that's the main like pre assumptions about other cultures”*. According to the results, less interest and lack of sense of responsibility among the immigrants is third major hindrance for societal participation as it is affecting the in participation of youth in societal activities as shown in table 3. ID# 13 shared that, *“People who came here and are not planning to stay they don't really feel responsible or. They don't feel. Eligible for caring what is happening in.”*. Also, ID# 15 shared that *“Some people have noticed that they're not interested in these kinds of things”*.

### **Subtheme 2.4: Difference of Culture and Nationality**

The findings shown in table 3 also identified cultural and nationality difference as a hindrance for the youth from different nations and culture to involve in societal events and activities in Finland. Only one respondent among all respondents identified this factor as a hindrance to participate in Finnish society. ID# 15 told that *“I think first of all I would say it's a culture.”* As there are different cultural and international people living in Finland, difference of culture and nationality could be the hindrance as mentioned above by the respondent.

*Table 3 Hindrances of Societal Participation for Youth*

Participants	Hindrances in participating in societal activities			
	Lack of Information	Language Barrier	Lack of Interest	Difference of Culture and Nationality
	9	7	6	2

### **Theme 3: Benefits of Societal participation**

Respondents were also inquired about the positive aspects and benefits of societal participation. The responses indicated different benefits for the people from Finnish background and from other backgrounds and nationalities residing in Finland. According to the findings, it is identified that societal participation is beneficial for societal progress,



development of a country and for increasing socializing among people from diverse backgrounds and different fields of life.

### ***Subtheme 3.1: Societal Progress and Country Development***

The respondents considered that increasing societal participation would help in improved functioning of political process, improving awareness about societal problems and improved discourse and discussions about the problems on public platforms. According to results of table 4 this would help in progressing towards better society and development of a country as one of the respondents (ID# 1) mentioned that *“Yes, definitely. I think active societal participation, as I said, is very important for functioning democracy”*. With participation in societal activities, youth can familiarize themselves with the key problems of the community and represent them in better ways as ID# 2 claimed that *“you can present the problems cause you have been through those problems, so. You will. Be able to explain better”* whereas, ID# 14 thinks that societal participation is important for the progression of society as the respondent shared that *“I believe it does greatly help the society, the ability for a society to talk about its issues and discuss these things openly is important for the progression of the society.”*

### ***Subtheme 3.2: Increased Socializing***

The findings of the study mentioned in table 4 also identified that increased socializing is also a benefit for societal participation. According to the respondents of the study, it is identified that societal participation helps in getting connections, meeting new people, getting closer to the people from diverse backgrounds, decreasing cultural differences and increasing knowledge sharing. According to one of the respondents, societal participation helps in meeting new people. The respondent ID# 4 added that, *“we can get the connections meeting people and meeting get to know them. So we come up with the ideas and. That's how we grow up and the country grows.”* According to one of the respondent societal participations also help in knowledge sharing with each other and making connection as ID# 12 mentioned that *“it would be definitely helping because we have like a lot of different cultures...so I think it would be good to have like”*. With increase in socializing through societal participation, the knowledge about people's perception could also be discovered as ID# 8 told the interviewee that *“I think yes, because it's very important to know like what the people and the citizens are thinking.”*

Table 4 Key Benefits of Societal Participation in Society

Participants	Benefits of Societal participation	
	Societal Progress and Country Development	Increased Socializing
	13`	2

#### **Theme 4: gamification elements in societal participation**

In order to address the research questions and objectives of the current research study, respondents were also inquired about gamification, its elements, and their role in supporting the societal participation and social integration. Respondents were inquired about identifying the features or elements of gamification platforms that can help in increasing the societal participation of youth of different cultures in Finland.

##### **Subtheme 4.1: Scores and Competition**

Scores and competitions are the two major components mentioned by the respondents as shown in table 5. Respondents mentioned that competitions and scoring designs may encourage young people from all cultures to participate in Finland. A feature or component of gamification systems that rewards user progress and accurate replies is score design and competition. The response of respondents supported and encouraged the use of points and competition to raise societal participation in Finnish society as ID# 4 mentioned that *“I think scores would be the best way to. Uh, bring people from different cultures because the scores shows the accomplishments that you'll get so you have there's some accomplishment by joining them.”* and ID# 13 shared that *“competitions would be the most popular,”*

##### **Subtheme 4.2: Badges**

Respondents identified that along with scores and competition, badges could also attract the youth for participation in societal activities on e-societies gamified platform as shown in table 5. A badge is a sort of feature or element in gamification platforms that symbolizes the success and achievement of a learner. To support and to promote the societal participation of youth Finnish society through gamified application, one of the respondents ID# 2, added that *“I think the badges would be more appropriate in this case”*. Badges show the sort of achievement for users as ID# 6 claimed that *“I think that. Badges. Because I think that it's really important for people to have some something material”*. However, the other respondent rated the importance of this element and linked it to their nature of self-importance as ID# 9 mentioned that *“Badges...because it's important, in Finland most people they are focused on themselves, so it's important to like let them know like what I did.”*

### **Subtheme 4.3: Challenges**

Other elements noted by the respondents' included challenges as shown in table 5. Challenges may inspire youth different cultures to participate in societal activities in Finland. Challenges are known as a feature or element of gamification systems which represent the obstacles that the game presents. The respondents endorsed the use of challenges to increase societal involvement in Finnish society as ID# 5 replied: *"Maybe there are challenges"* in response of question *"What gamified elements or features you think can increase the societal participation of youth of different cultures in Finland?"* moreover, ID# 14 also encouraged the use of this feature in increasing the societal participation as he mentioned that *"you could have some sort of going off with the challenges idea is, if you perhaps challenge people to have some sort of engagement."*

### **Subtheme 4.4: Leaderboards**

According to response of participants as shown in table 5. Leaderboards may aid youth's involvement in Finland from diverse cultural backgrounds. Leaderboards are a type of component found in gamification systems that are highly helpful in fostering user engagement. The respondents supported to use leaderboard to boost social involvement in Finnish society as ID# 6 mentioned that *"some leaderboards because people are competitive."* Whereas ID# 11 suggested that *"the leaderboard would be nice"*.

### **Subtheme 4.5: Levels**

Table 5 shows that couple of respondents think that levels may support the societal participation of youth of different cultures living in Finland. Levels are one sort of feature or element used in gamification systems to display the users' advancement. One of the respondents endorsed and advocated the use of levels to increase social engagement in Finnish society as ID# 10 mentioned that *"I think it would make more sense to have levels"*.

*Table 5 Importance of Gamification Elements in Societal Participation*

Participants	Importance of gamification elements in societal participations				
	Scores and Competition	Badges	Challenges	Leaderboards	Levels
	7	6	5	4	2

## **Theme 5: User perceptions about gamification for societal participation**

The respondents were inquired about their perceptions and factors that motivate them to integrate gamification for increasing societal participation among the youth residing in Finland

having diverse backgrounds and nationality. The findings are grouped into positive perceptions and negative perceptions about gamification.

### **Subtheme 5.1: Positive Perceptions**

According to the majority of respondents, gamification possesses a range of positive aspects that can be utilized for societal participations, shown in table 6. One of the respondents mentioned that *“it could encourage people to participate in society more”*. Gamification for societal participation is more attractive for the youth as ID# 6 mentioned that *“I see that. Yes, I think and I think that. These elements, they can be more interesting for younger people or young generations to encourage them.”* Moreover, the respondent also thinks this can help in integrating in Finnish society as ID# 4 claimed that *“I think these gamified elements can be used in societal participation if we organize different games and that games, but that games have both different cultures. Yeah, and then it would be helpful for societal participation.”* The use of e-participation platform having gamified elements will attract the youth to participate in societal issues and enjoy the participation as one respondent (ID# 9) mentioned that *“people get excited and they want to like. Show what they know or like, you know, compete just naturally”*.

### **Subtheme 5.2: Negative perceptions**

Some of the respondents do have a negative perception about usage of gamification elements for societal participation as shown in table 6. The respondents considered gamification as a source of creating competition only among youth and a source of endorsing individual social appearance rather than helping society. ID# 1 claimed that *“It really just becomes a competition between people”* whereas; ID# 2 refused to use it as it was informed that *“I would say no. then it just becomes a matter of, you know, uh, your social appearance.”* However, two respondents were not sure about the answer therefore, they think to opt out this question.

*Table 6 Perception of youth about gamified societal participation*

Participants	User perceptions about gamification for societal participation		
	Positive Perceptions	Negative perceptions	Not Sure
	9	4	2

## **Theme 6: Motivation for mentorship for societal participations**

Respondents were inquired about the mentorship for societal participations and the motivation of respondents behind starting mentorship. According to the findings respondents indicated that motivation behind mentorship includes sharing information and helping people, increasing

engagement, and solving societal problems. Following are the main themes about motivation of young people in Finland about mentorship for societal participations.

### **Subtheme 6.1: Information sharing**

Respondents considered mentorship helpful for information sharing as ID# 1 mentioned that, *“I like the sort of mentorship I have now, where my friends and family, we shared information between each other about important topics, relevant topics.”* Mentorship could help the youth in achieving their goals and make things easier with the right guidance. Based on the results of table 7, it shows that respondents think that mentorship could be effective in integration of Finnish society by knowing their history as ID# 6 mentioned that *“I would like to have like discuss in Finnish culture, Finnish history and some examples how this how this some kinds of events affected.”* However, some of the respondents were curious about the mentorship as they wanted to know what information is necessary as a mentorship for societal participation and social integration. While discussing the question of “What sort of mentorship you would like to have for societal participation and social integration both??” ID# 15 responded that *“I’ll know what kind of things and activities do they provide. Should I want like? Somebody in our school that can like, advertise, or say tell about the societal activities that are happening right now”.*

### **Subtheme 6.2: Societal Engagement**

Table 7 illustrates that majority of respondents determined that main motivation about mentorship is the increased engagement with Finnish people and Finnish culture. ID# 15 also stated that *“Like someone to tell me more about like. Finnish culture Finnish language.”* The other respondent also think mentorship of social integration could be effective for connecting the different cultures as ID# 12 considered mentorship as *“I think mentorship which just set of example and like have two different cultures to like connect.”* Moreover, the other respondents were keen to use mentorship for social integration as they think mentorship is useful for new people in Finland. ID# 9 stated in this regard that *“if there are some Mentorship for The Finnish culture and Finnish language and how to Ask for help when you don’t know what should you do like that. I think it’s important to...Very helpful for like someone new here.”*

### **Subtheme 6.3: Problem Solving**

Problem solving was also indicated in table 7 as the main motivation behind mentorship for solving the issues of society. The respondents want mentorship for societal participation for solving the problems of society. ID# 3 mentioned about mentorship that *“there are two things I’m interested about the societal participation is boarding a bill and solving the hard problem.”* Mentorship is like guiding the people to achieve something and mentorship for societal participation is for guiding the people to participate in societal activities. The respondents think

that mentorship could assist them in knowing the methods of participation as ID# 15 responded that *“Yeah I do wanna know like the pattern. How do I get in that or how can it is basically enter in that participation.”*

*Table 7 Motivation for Seeking mentorship for societal participation*

Participants	Motivation for mentorship for societal participations		
	Information sharing	Societal Engagement	Problem Solving
	6	7	6

### **Theme 7: Benefits of Mentorship for Societal Participation**

Respondents were inquired about the benefits of mentorship for societal participation. According to the findings respondents indicated that mentorship is a source of cultural integration and active participation in societal activities. Following are the main themes related to perceptions of young people in Finland about benefits of mentorship for societal participations.

#### ***Subtheme 7.1: Source of Societal participation***

Table 8 illustrates that majority of respondents also considered the benefits of mentorship as a source of participating in the societal activities for different purposes. The response of ID# 6 indicated that supporting the implementation of mentorship is to be active in societal activities as he added that *“I would like to take a member of mentorship, because I would like to be social active here.”* Respondents also think that mentorship could be effective for different sources of societal participation and could help them in understanding the societal issues and suggesting the solution for those problems. Both ID# 14 and ID# 15 mentioned that *“Issues relevant to Finnish society I, I believe that could be useful to understand”* and *“I want to suggest solution to the problems and participate in the things that are happening in the city.”*

#### ***Subtheme 7.2: Source of Cultural Integration***

The other key benefit identified by respondents about mentorship is the source of cultural integration with Finnish people and Finnish culture as indicated in table 8. ID# 4 indicated that *“So I think this mentorship will be helpful for ...in the integration of this Finnish culture”* whereas, ID# 12 stated that *“In Finland we have like a lot of. Like different cultures, so I think that's important to like unite all with them.”* However, couple of respondents don't think mentorship as benefit as ID# 1 mentioned *“I like the sort of mentorship I have now, where my friends and family, we shared information between each other about important topics.”*

*Table 8 Key benefits of using mentorship for societal participation*

Participants	Benefits of Mentorship for Societal Participation		
	Source of Societal participation	Source of Cultural Integration	Not Sure
	8	3	2

The overall results is based on three different cultural youth participants who are the major stakeholders of Finnish society in future. The results shows that shy nature of Finnish, lack of information and lack of interest of youth are the major challenges of societal participation. The majority of participants agreed that societal participation helps in social progress and development of the country. Moreover, the participants like to use a gamified platform for societal participation and they are excited to use gamification elements like badges, competition, score, and challenges. The youth also have the motivation for mentorship as they think it could help them in problem solving, social engagement and information sharing. It is also analyzed that mentorship could be a great source of supporting the societal participation and social integration for youth.

### 3.7 Concept Evaluation Results

. Following are the themes that are developed against the questions that were asked after showing the concept design.

#### **Theme: 1 Programs for Societal Participation and Social Integration**

After showing the initial concept design, the participants were asked about the programs of societal participation and social integration which they want to see on this platform. The participants shared their views in detail and shared the following programs for this online platform.

##### ***Sub Theme1.1: Programs which Engaged Users***

There were different responses of participants regarding the programs on this platform as they think that there should be programs which keep the users active and engage in societal participation. According to ID# 4, there should be group of events for the users so that user should remain engaged as he mentioned that *“if there's groups like or like acts like group events maybe”*. Another respondent also suggested to have program of physical gaming as well so that users remain engaged and ID# 1 mentioned: *“Really physical gaming thing, forming a group there.”*

### **Sub Theme: 1.2 Guidance and Teaching**

A few respondents also told that there should be programs related to guidance and teaching for the youth. One respondent suggested a program which can help the youth in learning the different cultures and integrating into society as respondent ID# 12 stated that: *"I think just like main thing is to learn about different cultures so there's some kind of way you can like learn other cultures"*, whereas ID# 14 discussed that: *"Could there be some integration into schools, perhaps? Like school program but like university."* The respondents were also interested in a program which could help the youth in some learning materials as ID# 13 and ID# 3 mentioned that *"Sort of a comprehensive guide on how to make sure that an event"* and *"I would like to also like have some fake FAQ."*

### **Sub Theme: 1.3 Sharing of Knowledge**

As there were different responses for this question, the respondents suggested a program which helps in sharing of knowledge for the youth on this platform. Some respondents also shared that there should be regular updates or news about the society as ID# 8 answered that *"I think for just like news and like updates and like things like this."* Moreover, ID# 7 asked about sharing of information and guidelines for societal participation so that youth may understand how they could do societal participation and he mentioned *"maybe some news about some events for social participation. And maybe some additional charts for people"*.

### **Sub Theme: 1.4 Sustainability**

There were some respondents who were interested in sustainability, and they suggested using a program which helps in making society sustainable. ID# 13 desired about designing a program which may guide the students about how to make their university sustainable by mentioning that *"advocating for changing like turning our campus into a more environmentally sustainable."* In regard of this, the other participant also answered in favor of sustainable programs for this platform as ID# 10 claimed that *"Different program about like sustainability."*

## **Theme: 2 Groups for this platform**

The respondents were also inquired about using groups on this platform for societal participation and social integration. The respondents have mixed opinions for adoption of groups on this platform and the following subthemes support their responses.

### **Sub Theme: 2.1 Helps in Societal Participation and Social Integration**

The respondents think that having the feature of groups on this platform is valuable as it could help the users (youth) in different ways. One of the respondents (ID# 2) think that users can make connections through groups, and he thinks *"Potential benefits we could that can also*



serve as a connection for people who are interested in a more specific area of societal participation or social, social integration.” The feature of groups on this platform may increase the societal participation and could engage the users. ID# 3 claimed that *“It might be feel more engaging. if it's a like small group. It would be more effectful at least like the others will be participate more”*. Furthermore, few respondents suggested adoption of groups will help in making the connections and create the ease of communication as ID# 15 mentioned that *“Yeah I think because the group they are gonna have like more opinion and they're gonna meet new people or like talk to new people. If you mean that kind of group”*.

### **Sub Theme: 2.2 Helps in Finding the Solution**

According to one respondent, the addition of groups on this platform could be effective for finding the solution for the problems as users could discuss the problem in the groups. The respondent (ID# 14) mentioned that *“If you want to look for discussion about that topic then you can go to that group and then and it's quite easy to find information there. I guess I think that would be helpful”*. It is also identified that groups could easily find the solution of their problem in the specific group, if the groups are based on some categories. One respondent thinks that if there are too many questions in a group then it might be a problem to find the solution as ID# 9 stated *“I think it's important because I think when the user group users become very big, yeah. And if there are too much questions then it will cause some problems and people might think it's difficult to find what I need”*

### **Sub Theme: 2.3 Groups cause Distraction and Separation**

There was one respondent who thinks that groups are not good enough for this platform as it may cause discrimination and may separate the users based on their scores and badges. That respondent (ID# 2) thinks that when there are users in a group, there is high chance of separation and inequality as the respondent answered that *“kind of us versus them, we're the better ones, we have the higher scores and there's the people with the lower scores and I don't know it could be that it. Separates people here.”* However, another respondent answered a bit similar and showed the concern that groups might cause distraction for help as people could make fake questions for the sake of scores. ID# 10 claimed that *“You might end up with like a problem that people are just kind of spamming messages in discussions and then like liking the other spam messages so that everybody gets points”*.

## **Theme: 3 Categories for Social Integration and Societal Participation**

The respondents think that there should be different categories for social integration and societal participation where users could make the societal participation in different sections or

departments and could integrate into society. Following sub themes were identified which describe the suggested categories for social integration and societal participation.

**Sub theme: 3.1 Societal and Cultural Improvement**

The respondents think that this platform could make societal and cultural improvements as they want to see some categories of societal participation and social integration which focuses on societal issues and cultural information. To have more cultural information, ID# 12 suggested that “*Defining knowledge about other cultures would be good*”. One other respondent thinks that as there is language barrier in social integration and the culture is different so there should be some categories of cultural information as ID# 8 answered “*I think like talking about language barriers, talking about. Just like in general, the culture in Finland and like introducing these kinds of things of what might be very different from what people are used to*”. The respondent (ID# 1) also suggested having the category in which society could be improved as he answered that “*In societal participation should be categorized by helping the society and the culture. You can. Uh, and life and we are living life*”.

**Sub theme: 3.2 Solving Everyday Issues**

There is also suggestion about having some program which solves the everyday issues of the society. As the platform is for the youth, the respondent suggested that there should be some information about the work environment and job searching for the youth as ID# 2 mentioned “*Like helping youth in the work environment, fighting jobs, these kinds of things, they're very important*”. The respondents were also worried about the everyday problems and their solutions as one of the respondents (ID# 6) suggested that “*Would also be helpful like some. Uh, they can be attached to your studies. They can be a category. Of everyday life*” whereas another respondent (ID# 7) mentioned “*for social participation some main problems. Current situation. And the ways, some possibility to effect on them, maybe some links on petition and some groups on discussions*.” There was another important suggestion about the categories as ID# 11 wants information about the taxes and government rules. the respondent mentioned “*might be needing for example with the taxes in Finland. They might be hard for some people or some kind of a government. Uh, forms that they need to send that kind of categories that would be*”. The respondents also suggested environmental and sustainability issues and ID# 14 answered “*I guess we could have environment or, uh? I guess general political or somehow broken down into different ways. Not political's too broad*” whereas ID# 13 suggested “*let's just stay with the environment, I think. Environment and sustainability*.”

**Sub theme: 3.3 Area or location**

For societal participation and social integration, the respondent also suggested having programs based on location and area as he thinks the users belong to different areas and location and there should be activities and programs based on specific location. ID# 4 mentioned that *“I know so areas because people live in a different area, so it would be nice if there could be area place so they could kind of meet easier.”*

#### **Sub theme: 3.4 Racism and Sexism**

Racism and Sexism is also one of the categories which was suggested by the respondent as she thinks that there should be some programs which helps users in dealing with racism and sexism. As there are different cases of racism, the respondent wants a category in which these issues are solved as ID# 10 mentioned *“a cyclic race system or like. That that kind of. Stuff should be should be one I might have. I think like. Exchange students like they will face them right and then like from the same team like sexism. That's like a very big topic.”*

#### **Theme: 4 Other benefits for this platform.**

For the concept analysis, it was aimed to know what other benefits they want from such platform and there were different responses of respondents who suggested the key benefits in form of programs and improvement of platform. To determine the suggested benefits, the following subcategories are developed.

#### **Sub Theme: 4.1 Adding More Features**

The respondents think some different features should be added on this platform to make it more effective and attractive for the youth as they suggested, Leagues competition, preset options, usage of emojis, test of information and physical badges. ID# 3 wants to use this gamification element “competition” in the form of leagues, to attract the youth for societal participation and while replying to this question, the respondent mentioned *“I would also like have some sub leagues if you will have like this kind of League Noodle on leadership board.”* Another participant (ID# 9) answered, *“preset options and you also can type it because it's just a text field.”* Which shows it could be a good addition on this platform for mentorship because when the user seeks for mentorship, the preset questions help the mentor in guiding the users. Moreover, physical badges, using emojis and class for testing information were also suggested by the respondents as key features for this platform and ID# 13 and ID# 11 mentioned *“Are their badges like only uh, in like an E form? I think people usually, uh. Appreciate the physical forms too, so maybe if it's, it's uh, you earn a badge online, but then if you can actually make it and distribute, yes, I think I think that would be very appreciated”* and *“I think some kind of class might be nice to like. Uh, for people to test their information or with others”* respectively.

### **Sub Theme: 4.2 Improving Design**

While asking about the additional features, some respondents suggested improving the design of the initial concept and making it attractive and accessible. ID# 5 showed concern and mentioned *“the design looks pretty basic I would say like line by line so it’s gonna be good if you have like a search bar”*. It shows a few respondents were not happy with the initial designing of the platform as the respondent suggested to not use the score deduction while asking for mentorship and ID# 14 stated *“the part where you have the uh, you ask for mentorship and then it minuses 5 points and gives the mentor five points, it may reduce the amount of people, not exactly sure, but may it may reduce the amount of people that. I want to ask for mentorship.”*

### **Sub Theme: 4.3 Feedback Comments**

Another respondent suggested making iteration in the comment section as it was suggested to add the feeling option for the comments to motivate the users for more comments and appreciation. Respondent ID# 4 mentioned that *“kind of like cheering comments Like, yeah, good job you made a comment. Cheering comments like yeah you know, like example like hey good job you made a comment or like.”*

## **Theme: 5 Suggestions for designing and usage of Gamification Elements on this platform**

The last question was about the improvement of concept design and gamification elements so that this platform could be used by the youth for societal participation and social integration. In response to this question 75% of the respondents think that either they have given the answer to it already in the previous question or they don’t have much idea about it whereas, the response of remaining 25% is analyzed through Following sub themes.

### **Sub theme: 5.1 Add More Feature**

The respondents suggested adding more features to this platform as ID: 10 suggested *“you could have it like you can have like 1 anonymous comment each week or something like that. Time base because I’m just curious if they like level like progression of levels is like linear.”* The respondent wants to have the feature of hiding the user ID so that user can put honest comment on serious issues. However, another person suggested the react on comments, if there is any praise or harassment, the user can react accordingly as ID#5 mentioned *“I mean, like you can give me like a heart, a heart leg emoji. he saw a very harassing harassment comment and he want to delete that. Report something, so it should be the option for him to, you know, on the right side of the comment”*.

**Sub theme: 5.2 Not satisfied with usage of gamification**

One of the respondents opposed the usage of gamification for societal participation and social integration as ID#2 thinks that usage of gamification might affect the actual cause of societal participation. The respondent opposed the usage of scoring and answered *“I'm wonder if that score actually captures the essence of what you're trying to kind of. Represent with that score. we yeah, let me the score would indicate that people are engaged with the topic, but it wouldn't tell you why people are engaged.”*

To summarize this, youth want the features which help them in societal participation such as; programs for guidance and teaching, programs for engaging the users and programs for information sharing. The result determines that groups could help the youth in societal participation, social integration and finding the solution for their problem but some participants also show their concern for adding groups on this platform. However, the participants want to see the categories of cultural and social improvement, solving everyday issues and location-based categories for the programs of this gamified platform. After evaluating the concept, the participants also suggested adding feedback comments, adding more features, add more gamification and improving of designing. These results are used to make the necessary iterations and new iterative concept design is discussed in the next chapter.

## 4. DESIGN OF GAMIFIED PLATFORM FOR SOCIETAL PARTICIPATION: STUDY 2

### 4.1 Concept Iteration

After the first round, the concept design is iterated and changed into mobile application format. The concept design is iterated on the basis of the first-round results, and it covers the key programs to support the societal participation and social integration of youth of different cultures living in Finland along with mentorship feature. Figure 10 and Figure 11 show the account registration and user login on this platform. The user needs to register themselves to use this platform, and there are different options of login on this platform as shown in the figure for example, login from Facebook, Gmail or login through phone number and social security number.

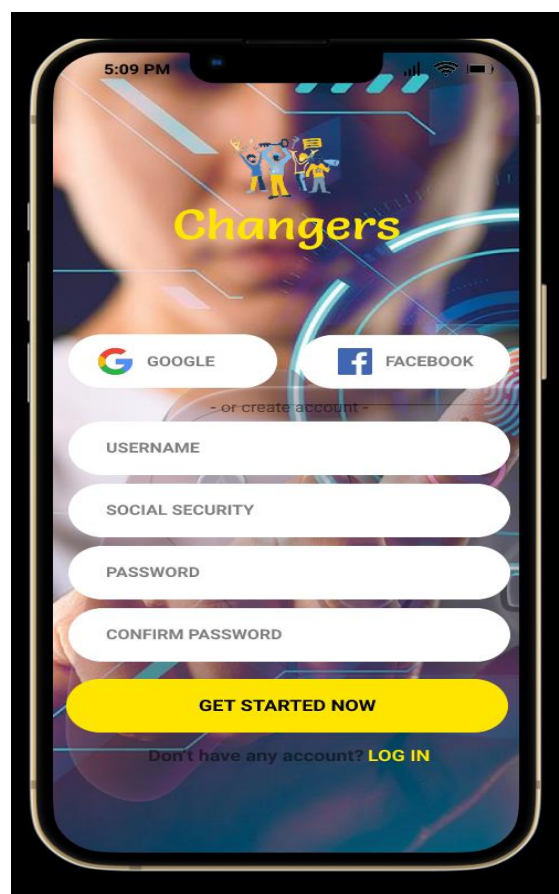


Figure 10. Account registration page of concept prototype



*Figure 11. Registered User login page of concept prototype*

Home page is the main page of any mobile application. The home page could be seen in figure 12 where in the upper section, user could find the daily news as suggested by ID# 5 that daily news should be added as the participant mentioned: “*yeah. Maybe some news like top daily news about that.*” In lower section, there are three key programs of this study i.e., digital societal participation, social integration, and mentorship. There is one menu bar and notification bell as well on both top corners of the page. The yellow bar is the search bar for news and programs for the user while the below five options are of home screen, discussion, settings, profile, and page changer.



*Figure 12. Home page of gamified platform for societal participation*

The program of gamified societal participation covers the number of programs which have societal activities as shown in figure 13. In this figure, there is a list of programs showing and the key information about these programs. Whereas right window of figure 13 shows the main features of each program including discussions, events, activities and documents. There is a list of discussion topics under category of discussion and list of events under category of events. The category of activities covers the pictures and videos of the events as memories. In last, there are some documents as well which covers the important information and could help the youth in making the societal participation.





Figure 13. List of programs of societal participation and categories of programs of societal participation

In this prototype application, when the user visits any program and check the categories, an avatar is popped-up by asking "Wants the mentorship?" Figure 14 shows a popped-up avatar which asks the users for getting the guidance through mentorship in societal participation program. The avatar is added to make the platform more attractive and gamified as results suggested the addition of more gamified features.

The user can discuss different topics of societal participation in the discussion section and could give their input through comments and earn points as well as shown in right side of figure 14. Each comment in the discussion section gives two points to the users and keeps them active on this platform.



Figure 14. Avatar asking for mentorship and discussion in welfare of society program

After the discussion, the user could also attend the events related to societal participation as all the information about the events has been shared on this platform which could be seen in left side of figure 15. When the user attends a physical event, they get 10 points as the event categories have the most points because it requires more effort and activities. There are different programs of social integration in figure 15 as suggested by participants. ID# 2 suggested that programs related to work environment *“Like helping youth in the work environment, fighting jobs, these kinds of things, they’re very important.”* whereas ID# 9 suggested to add program which could solve the language barrier *“I think like talking about language barriers, talking about. Just like in general, the culture in Finland and like introducing*

these kinds of things of what might be very different from what people are used to.” The programs have the same categories of discussions, events, activities, and documents.



Figure 15. Events of Welfare of Society Program and list of programs of social integration

Other than these two programs, mentorship is also a key program of this platform as users can seek guidance for societal participation and social integration. The mentorship program has mentors of two different categories i.e., societal participation and social integration as shown in figure 16. Figure 16 also shows the list of mentors for societal participation and the list is based on top scorers. It can be seen at right side of figure 16 that all the mentors are qualified enough as they have achieved significant score to be in that list and some basic profile description is also shown.



Figure 16. Mentorship program on concept prototype and list of mentors of societal participation

Mentor's profile is shared in figure 17 where user can see the score, badge, channel of communication and ask for mentorship option. The user could also check the profile details of the mentors and their background as well. The ask for mentorship option for users is effective as users can seek guidance from the mentors on societal participation. User will get the five points on ask for mentorship and this scoring is to motivate the user to seek help for every issue. However, in the initial concept, there was deduction in points of user while asking for help from mentors, but the participants suggested that deducting points of user could demotivate them as ID# 2 mentioned "yes. *I think the part of deduction of score. From the element we can demotivate the person.*" Hence, the iterated design don't have any point deduction for the users. Figure 17 also covers the list of mentors of social integration just like figure 16 where mentors guide the users for societal participation.

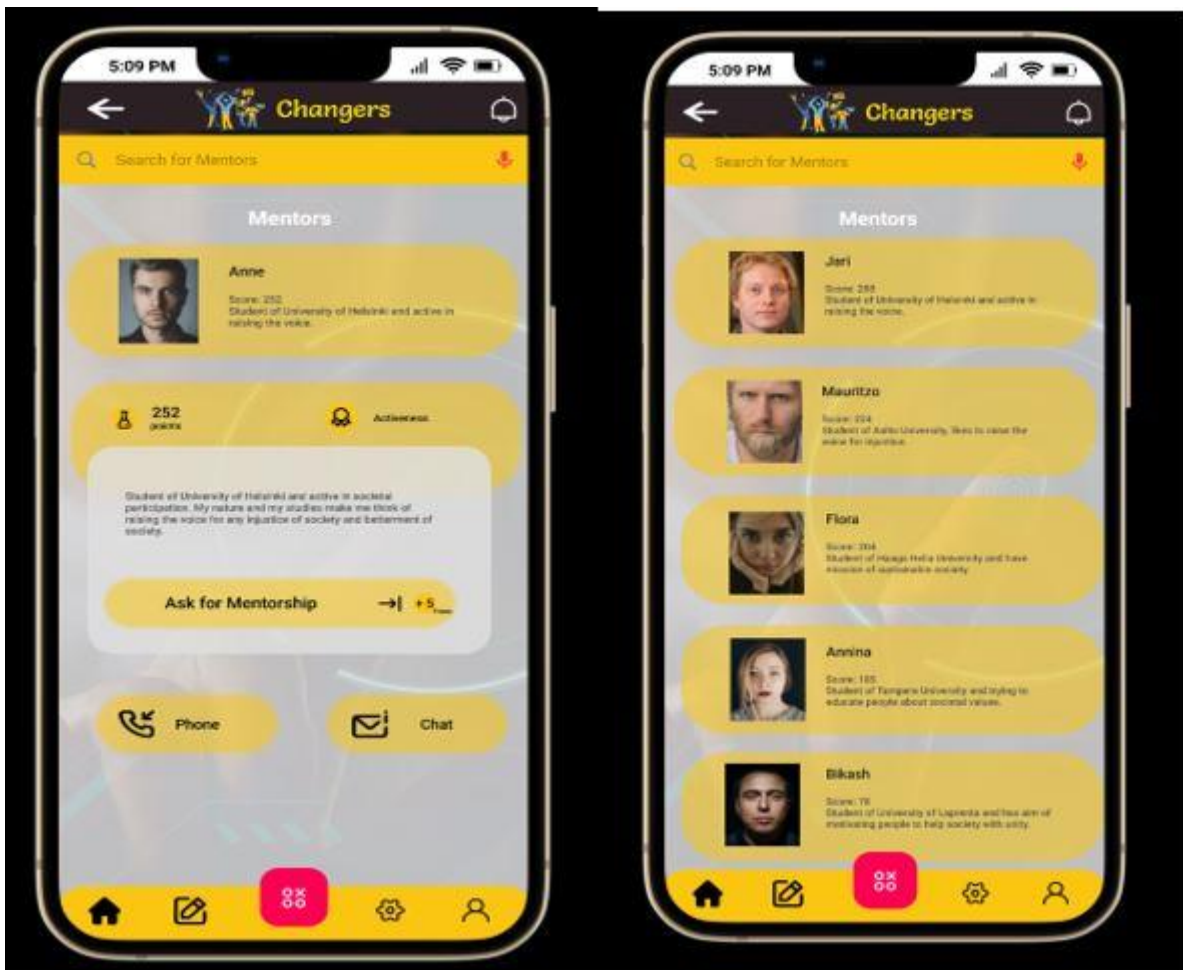
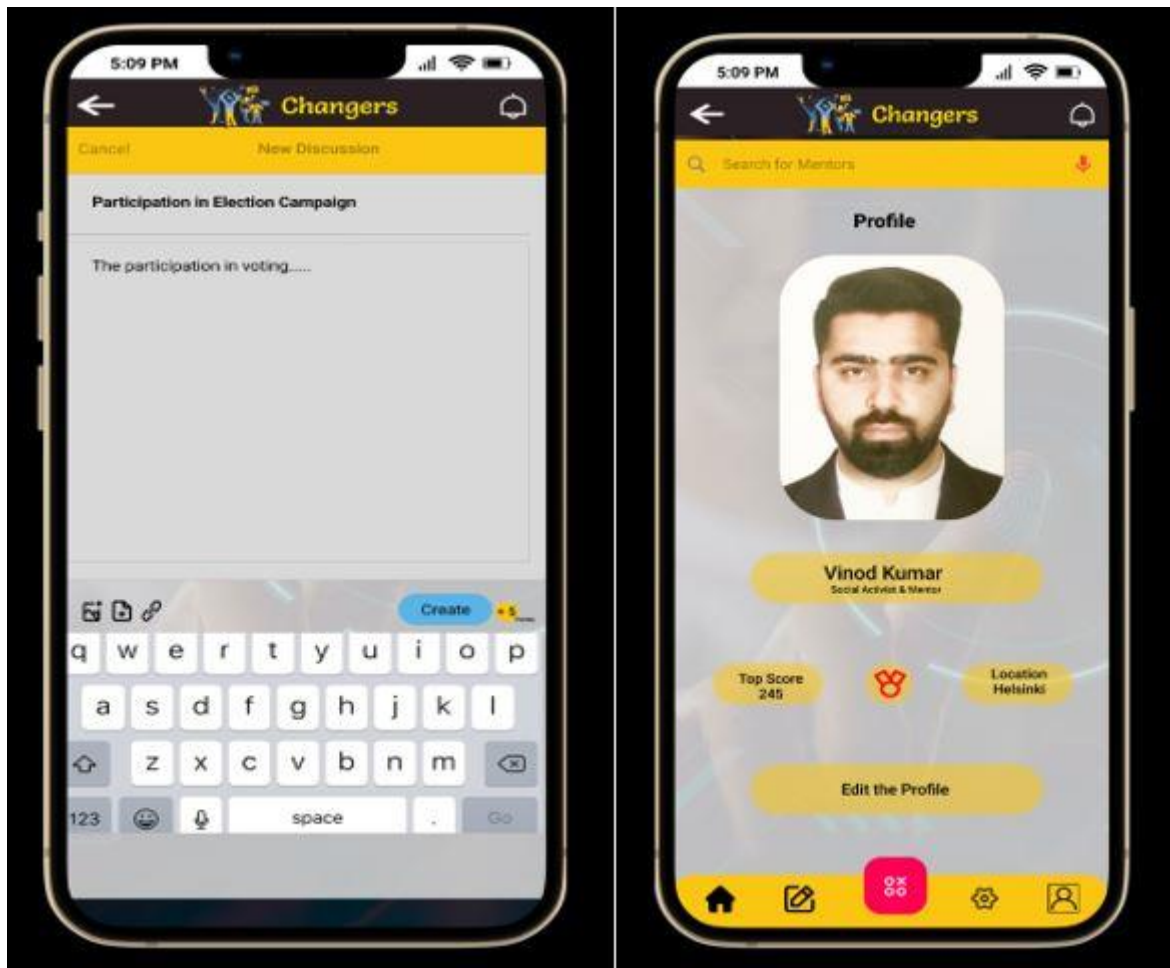


Figure 17. Profile of mentor of societal participation and list of mentors of social integration

Discussion is also one of the important features of this platform and it is linked to both the programs. The user can discuss all the issues and ideas of societal participation and social integration and could also participate in other discussions. Figure 18 shows the discussion page where user can start the discussion by mentioning the subject and description in the respective areas. Five points are allocated for starting a discussion and these points motivate the youth to start the discussion and play the role of iceberg. After all these features, the user can review their profile as well which is shown in right side of figure 18. In the profile page, the scoring and badges of the user can be seen. It also shows the location of the user and profile image as well, but it depends on the user that whether they want to show their profile and location or not. The user could also edit their profile.



*Figure 18. Discussion feature on concept prototype and User profile of concept prototype*

After all, there is a setting page as well on this platform where user can manage the language, account, notifications, challenges, privacy settings, leaderboards and exit option. As seen in left side of figure 19, the user can seek help and support from the developers as well if any issue persists. Moreover, as visualized in figure 19, the user can manage the option of challenges as there are three options of challenges i.e., daily, weekly and monthly. When the user selects the daily challenges option, every activity shown on this platform will be on a daily basis and if the user selects the weekly challenges, all activities will be on weekly basis.



*Figure 19. Setting window of concept prototype and challenges option in setting window.*

Leaderboard is one of the gamified elements which is widely focused on this platform and all the points on different activities will help the user in reaching the leaderboards. There are three different categories on leaderboards i.e., silver, gold and platinum as shown in left side of figure 20. The user will move from one category to another by achieving significant points and by passing the levels. In last, the right side of figure 20 shows the pink button which is page switching option and user can switch the pages by using this option.



Figure 20 Leaderboard of Silver category and page switching option in concept prototype

## 4.2 Analysis

This second round provides the analysis of the results of iterated design obtained via the interview method. In the second round, five participants were interviewed and four of them already participated in the first round as well. A new participant was also interviewed, and a distinct pseudonym was given like before to protect anonymity as shown in Table 2. This new participant lies in the age range and belongs to Asian culture. The section used the same technique of recording and transcribing like first interview round as all the interviews and each transcript was analyzed for identifying different themes and sub-themes.

Table 9 Participation information for testing of Iterated Concept

ID	Gender	Country	Interview Method
5	Female	Finland	Online
10	Male	Finland	Online



13	Female	Poland	Online
15	Female	Pakistan	Online
16	Male	Pakistan	Online

### 4.3 Results

The section covers the following themes and sub-themes which are developed against the new questions of iterated design section.

#### **Theme: 1 Mobile Application design supports the societal participation**

After showing the iterated design, the participants were asked that the designed mobile app could support the societal participation of youth of different cultures in Finland. All the participants agreed that the design will definitely support societal participation and the following sub-themes are identified showing the reasons for their agreement.

##### ***Sub-Theme: 1.1 Mentorship encourages youth for societal participation***

All the five participants agreed that this mobile application design could support the youth in societal participation. The participant thinks that mentorship is an important feature of this platform as users can communicate about their problems. In response to the question, one participant answered that mentorship helps users for their queries as ID# 5 mentioned that *“I think mentorship is really powerful thing because. Because it's really helpful to have someone to ask a question to. If you have a mentor, it's easier to communicate with other people.”*

##### ***Sub-Theme: 1.2 Ease of using and availability of all functionalities supports societal participation***

There were different reasons mentioned by the participants in agreement of this mobile app for societal participation and 3 out of 5 participants agreed on this theme. The participants think that when all the features and people are on one platform, it becomes easy to adopt that platform. ID# 15 mentioned that: *“give me opportunities to find some social things happening outside and this app tell about the jobs and the events that are going to happen”*. Ease of using the platform is also the reason due to which the participants think the mobile app could support the societal participation as ID#16 mentioned: *“It's clearly defined easy to use, so I'm sure that it will help you with that”*

##### ***Sub-Theme: 1.3 Gamification helps in societal participation***

As the application has gamification elements as well and participants think that this is the factor due to which youth would be motivated for societal participation. 3 out of 5 participants

also agreed that gamification could help in supporting societal participation as they described that youth like gamified elements, and it attracts them to use this designed mobile application. ID# 13 mentioned *“it's like challenge based and there's definitely going to be people who are into you can connect with your friends and like you know, make little competition between each other”* whereas, another participant mentioned that *“there's competitions, it can help, it is going to help a lot”*.

### **Theme: 2 Mobile Application design supports in solving social integration challenge**

The participants also expressed their agreement that the designed mobile application could support the youth in solving the challenges of social integration. The following sub-themes were developed in response to this question.

#### ***Sub-Theme: 2.1 Mentorship helps in social integration***

Although all the participants concurred about the design of this mobile application, but one participant agreed that mentorship could really help in social integration and suggested that mobile application could support the challenges of social integration as ID# 5 answered to respond the question that *“Yeah, of course, of course it can help. But I think that they will work better if you have a mentor.”*

#### ***Sub-Theme: 2.2 Discussions help youth in social integration***

According to the response of participants, the discussion feature of this mobile application is also an important factor for social integration of international youth. One participant completely acknowledged that discussion of ideas and questions of your mind could help the youth in integrating socially as ID# 10 stated *“If you. Have something else in your mind and you can. Start your own topic, then I think this would help people.”*

#### ***Sub-Theme: 2.3 New and accessible mobile application***

The easy accessibility and new idea of this mobile application for social integration could solve the challenges of social integration for the youth. 3 out of 5 participants agreed that this new idea of mobile application for social integration could be effective. One participant thinks that the lack of availability of such platforms for social integration could be the reason of challenges of social integration while another participant discussed that when the participants are interested in social integration, they could easily use this mobile application. Further, one participant also determined that this will save time of youth as ID# 15 stated: *“If people are really interested like personally I would search for it and there is an app that directly tells what is happening then it will help, so then the users do not have to waste their time searching for*

*it in the Google separately, the app is going to tell what is happening and then they are going to find it.”*

### **Theme: 3 Mentorship Feature motivates youth for societal participation**

In response to the question about mentorship feature, the participants think that this will surely motivate the youth and could help them and support them in societal participation. The following sub-themes were developed to justify the response of participants regarding the mentorship feature of this mobile application design.

#### ***Sub-Theme: 3.1 Mentorship helps in societal participation***

The correspondence on mentorship feature of this mobile application is widely present in these results as 3 out of 5 participants really think mentors could play the vital role in societal participation of youth. ID# 5 praised this feature and stated *“for me it would work because. If you have like some person that you really admire”*. Another participant ID# 13 considers mentorship as nice option as it could encourage the youth, the participant mentioned *“Nice option to have there, whether it's successful or not, kind of depends on the people who end up being meant. I think it's good to have this person that's encouraging you also.”*

#### ***Sub-Theme: 3.2 Mentors could prove themselves with scoring***

One of the participants agreed that mentorship is effective for societal participation, but the participant also raised an important element that scoring for mentors is also important as user's belief come with their scoring. The participant think that it also depends on the mentors that how effectively they help the youth with their issues as ID# 10 mentioned *“I really like the idea that they the mentors, have they kind of have to earn their like reputation.”*

#### ***Sub-Theme: 3.3 Mentors save youth's time***

Using this feature could also save the time of the youth and one participant thinks that with this feature, the youth will be motivated if they could easily ask for help or could discuss their problems with the mentors. The participant ID# 15 stated, *“I think it is going to help because then like basically, then people don't have to you know, waste their time searching for getting help, and they're just goanna contact the people and get the help that they really need.”*

### **Theme: 4 Gamification elements attracts youth for societal participation and social integration**

Gamification is also one of the important elements of this mobile application as the participants believe that youth are interested in games and gamified elements. The following sub-themes

were developed based on the analysis of importance of gamification for youth in societal participation and social integration.

**Sub-Theme: 4.1 Youth like competitions**

All the participants supported the usage of gamification as they think gamified elements bring interest to youth but one participant determine the importance of competition for youth regarding social integration and societal participation as ID# 5 mentioned *“you know young people. They really like to how to say to be in some competitions and they can be I? I can't really imagine the situation that I have group of my friends from different countries and like ah, I got. I got 10 points yesterday.”* The respondent thinks that when there is competition, the youth will be more into societal participation and social integration.

**Sub-Theme: 4.2 Leaderboards and Points attracts youth**

Other than competition, 4 out of 5 participants think that youth get attracted with gamification features of leaderboards and points. To support this, ID#10 responded that *“I personally am that kind of person, that if there's some kind of leaderboard I want to spend, like as much time in the app as possible to get as high scoring as possible”*. ID# 15 believes that the points feature used on this mobile application is good enough as the participant mentioned: *“I think yeah, the points. Especially can help because they're kind of like games that you get more points and then you get something, so I think this points one was really good.”*

**Sub-Theme: 4.3 Youth like gamification elements**

The usage of gamification elements on this mobile application is widely supported by all the respondents as it attracts youth. 2 participants consider usage of gamification is a way of attracting youth for societal participation and social integration as ID# 15 mentioned: *“it gamification can like really attract the youth because youth nowadays are using like are playing games. if I get the points then I'm like more interested in doing that thing so.”* Further, another participant thinks that Finnish youth like badges as ID# 13 mentioned *“Yeah, I also saw the badges. Which, like Finnish people in particular, are very big on badges. They love badges, little physical ones, more that you can actually sell into your overalls, but I think still the idea is there so they would appreciate.”*

**Sub-Theme: 4.4 Gamification is not necessary for social integration**

Although usage of gamified elements is important on this platform but one respondent thinks that it is not necessary for all the youth. The responded raised a point that gamification surely attracts the youth, but it is not necessary for the youth as some youth would use this for supporting the social integration and societal participation. ID# 10 mentioned *“like not every*

*everybody is into like game gamification element but like you can totally benefit from this app without even like. Without focusing on the like gamified element.”*

To summarize this, the iterated concept covers all the features and programs suggested by the respondents in the first phase of interviews during this study. The iterated concept is designed as a mobile application platform with attractive gamified elements and mentorship features. The evaluation of iterated concept shows that it could support the youth for social integration and societal participation. The analysis determines that usage of gamification elements on such platform could be useful as youth likes gamification elements.

## 5. DISCUSSION

In this section, a brief recap of the results, their interpretation, and implications are discussed catering to the research questions of this study. The section will also cover the limitations faced during this research study along with recommendations for future studies.

### **RQ: 1 What are the challenges of integrating into Finnish society for youth of different cultures in Finland?**

It is identified from this research that social integration into Finnish society is a big challenge for the international youth and it could affect their societal participation as well. This research shows that international youth face the challenges of integration and major challenges for them are the language barrier, the shy nature of Finnish youth, and lack of interest. It is evaluated that when youth of different cultures come to Finland, they face difficulties in integration due to differences in language. The other major challenge identified during this research is the shy nature of the Finnish which demotivates the youth of other cultures to integrate into Finnish society. The difference in culture and shyness of Finnish makes it difficult for international youth and Finnish youth to connect. The interview analysis also shows that the lack of interest of Asian and European youth is another reason as they come to Finland either for their studies or work and they are not much interested in societal activities. It is identified that these challenges could have a major impact on the future of societal participation. To solve these challenges, a mobile gamified application for societal participation and social integration is proposed through this research which could help the youth in integrating into society and finding all the required information along with the option of seeking guidance and help from mentors.

### **RQ: 2 How can Gamified Application increase the societal participation of youth of different cultures within Finnish culture?**

The study results suggest that the usage of the gamified application for societal participation and social integration is an interesting and attractive idea for youth. It is evaluated that when there is competition and challenges, the youth will be attracted to societal participation. The usage of badges is also identified as an effective feature for gamified application as youth is interested when there is some recognition for their efforts. The research shows that the majority of participants agreed that youth like the gamification elements and it could attract the youth for social integration and societal participation in Finland. Leaderboards and points features are also recognized as important gamified elements by the participants as the

participants claimed that when the youth see themselves on the leaderboards, it will motivate them for societal participation. However, few participants have shown their concern about using the gamified application for societal participation because they are afraid that when there is competition and challenges, the actual cause of societal participation could be affected as the youth might participate only for gamification. The overall results show that the usage of the gamified application for societal participation is an effective idea, and it could attract more youth for societal participation which could help in developing a better society.

### **RQ: 3 From youth perception, will mentorship be beneficial for societal participation?**

The result of this study shows that mentorship could play a key role in supporting the societal participation of youth. The feature of mentorship for supporting societal participation and social integration is largely appreciated by the participants as they think when the youth have the option of asking the mentors, they would be more interested in societal participation. The availability of mentors to guide the youth in societal participation will attract the youth to take interest in societal participation. The research also identified that the point system used to rank the mentors is also effective as it will help the youth to seek guidance from experienced mentors. The research identifies that when there is some guidance available, the youth's interest in societal participation increases.

#### **RQ 3.1 What can be the motivation to provide mentorship?**

There are various reasons why youth are attracted to the mentorship feature as it could help them in societal participation. The feature of mentorship will play a major role for youth to participate and integrate into society as the lack of information and the shy nature of Finnish are one of the hindrances to societal participation which could be covered through this. Furthermore, the motivation for youth to get mentorship includes guidance to solve problems, societal engagement, finding relevant information, and making connections. The results suggest that mentorship could play a significant role in cultural integration and societal participation for youth because youth living in Finland gets comfortable when there is someone to guide them. It is identified that mentorship could save the time of youth, motivate them to be active, and could bring their interest in societal participation and social integration. This shows that mentorship could be effective for the youth for societal participation and social integration as the youth's interest increases with the availability of guidance.

**Limitations of study.** Although the goals of the research were achieved smoothly but there are some challenges or limitations, which need to be discussed for further work. Due to the limitation of time and commitments of participants, only five participants were invited for analysis of iterated concept design from which four participants were also available in the first concept analysis, and one new participant was invited. It is required to have all 15 participants

for the testing of the iterated design so that the reliability of outcomes can be assured. Furthermore, finding the participant is also one of the limitations as the research is based on the youth of different cultures living in Finland, and participants from Finland, Asia, and other European countries were targeted. Due to the unavailability of participants, some participants were taken from other parts of the world opting out of the European region.

Based on the current results of the iterated prototype, there are still some improvements that should be made including the addition of FAQs, a guide to use the service, more feedback for the users, and the designing of leagues. The addition of FAQs will help the user to use the service whereas a complete guide to use the service and how to use gamified elements will motivate the user to be active on this platform. The designing of leagues will make it clear to the users how they have to participate and what are the criteria for competing in the leagues. As the focus of the research was to analyze how mentorship features could help the youth and what is their motivation for mentorship, the participation of mentors on this platform could be a possible challenge as well.

The research is largely focused on supporting the societal participation of youth in Finnish society and the possible challenges for them in social integration. The youth of different cultures was inquired about the research but inputs of other stakeholders including government officials, social workers, and the common public of society should also be considered, to analyze the depth of this issue in society and to propose an effective solution to this issue. Lastly, further research is required to analyze this issue from all angles and to develop more insights into the proposed solution.

**Future work.** The research has achieved its goals by analyzing the challenges of social integration for the youth of different cultures in Finland and by proposing a gamified mobile application with a mentorship feature for supporting societal participation. There are still long gaps available that are required to be met, to play a more significant part in solving this issue. The mentor's motivation to use this platform is still a challenge that needs to be studied further. It is recommended that different stakeholders should also be inquired about this topic and should be invited to test the suggested prototype. Also, the prototype design of gamified mobile application could be improved after its testing and inquiring into the issue. To support the societal participation of youth of different cultures in society, the youth should also be educated about the importance of societal participation and its possible impact on improving society.



## 6. CONCLUSION

Societal participation and social integration are two important things, and they have a large impact on society as studied in this research study. The study has produced some valuable information about the challenges of societal participation and social integration for the youth of different cultures of Finland along with the positive impact of mentorship to support the youth in integration and participation. In specific, the findings point out that the language barrier, the shy nature of Finnish people, and the lack of information are the major challenges for youth in societal participation and social integration. The research suggests that mentorship could be an effective strategy for increasing the societal participation and social integration of youth as mentors could guide people and motivate them. The findings shed light on the value of using gamification elements in supporting societal participation and social integration. The result suggests that youth like gamified elements; challenges, leaderboards, scoring, and badges as it motivates them for societal participation and social integration, but the usage of gamification elements needs to be prominent as it can also affect the motive of societal participation and social integration. The suggested prototype design is a gamified platform that motivates users to societal participation and social integration, and to avail the mentorship to solve the issues of societal participation and social integration. Hence, the research concludes that the usage of gamification elements in designing a digital platform for societal participation and social integration is an effective way of motivating the youth to be more active in societal participation and integration into society along with seeking guidance where necessary.

## REFERENCES

- Antin, J., & Churchill, E. F. (2011). Badges in social media: A social psychological perspective. In *CHI 2011 gamification workshop proceedings* (Vol. 7, No. 2).
- Bedwell, W. L., Pavlas, D., Heyne, K., Lazzara, E. H., & Salas, E. (2012). Toward a taxonomy linking game attributes to learning: An empirical study. *Simulation & Gaming, 43*(6), 729-760.
- Bitrián, P., Buil, I., & Catalán, S. (2021). Enhancing user engagement: The role of gamification in mobile apps. *Journal of Business Research, 132*, 170-185.
- Burguillo, J. C. (2010). Using game theory and competition-based learning to stimulate student motivation and performance. *Computers & education, 55*(2), 566-575.
- Cheong, C., Filippou, J., & Cheong, F. (2014). Towards the gamification of learning: Investigating student perceptions of game elements. *Journal of Information Systems Education, 25*(3), 233.
- Chorney, A. I. (2012). Taking the game out of gamification. *Dalhousie Journal of Interdisciplinary Management, 8*(1).
- Coronado Escobar, J. E., & Vasquez Urriago, A. R. (2014, October). Gamification: an effective mechanism to promote civic engagement and generate trust?. In *Proceedings of the 8th International Conference on Theory and Practice of Electronic Governance* (pp. 514-515).
- Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: an overview of self-determination theory.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011, September). From game design elements to gamefulness: defining "gamification". In *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments* (pp. 9-15).
- Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (2015). Gamification in education: A systematic mapping study. *Journal of educational technology & society, 18*(3), 75-88.
- DuBois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine, J. C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest, 12*(2), 57-91.

- Duke, R. D. (1995). Gaming: An emergent discipline. *Simulation & gaming*, 26(4), 426-439.
- Duke, R. D. (2000). A personal perspective on the evolution of gaming. *Simulation & Gaming*, 31(1), 79-85.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, 41(10), 1040.
- Hamari, J., & Koivisto, J. (2015). "Working out for likes": An empirical study on social influence in exercise gamification. *Computers in human behavior*, 50, 333-347.
- Hassan, L., & Thibault, M. (2020). Critical playable cities. *Making Smart Cities More Playable: Exploring Playable Cities*, 71-85.
- Huotari, K., & Hamari, J. (2017). A definition for gamification: anchoring gamification in the service marketing literature. *Electronic Markets*, 27(1), 21-31.
- Hästbacka, E., Nygård, M., & Nyqvist, F. (2016). Barriers and facilitators to societal participation of people with disabilities: A scoping review of studies concerning European countries. *Alter*, 10(3), 201-220.
- Ianniello, M., Iacuzzi, S., Fedele, P., & Brusati, L. (2019). Obstacles and solutions on the ladder of citizen participation: a systematic review. *Public management review*, 21(1), 21-46.
- Jekielek, S. M., Moore, K. A., Hair, E. C., & Scarupa, H. J. (2002). Mentoring: A promising strategy for youth development. *Child Trends Research Brief*, 2, 1-8.
- Kahle-Piasecki, L., & Doles, S. (2015). A comparison of mentoring in higher education and Fortune 1000 companies: Practices to apply in a global context. *Journal of Higher Education Theory and Practice*, 15(5), 74.
- Kapp, K. M. (2012). *The gamification of learning and instruction: game-based methods and strategies for training and education*. John Wiley & Sons.
- Khaitova, N. F. (2021). History of gamification and its role in the educational process. *International Journal of Multicultural and Multireligious Understanding*, 8(5), 212-216.
- Klamert, K., & Münster, S. (2017). Child's play-A literature-based survey on gamified tools and methods for fostering public participation in urban planning. In *Electronic Participation: 9th IFIP WG 8.5 International Conference, ePart 2017, St. Petersburg, Russia, September 4-7, 2017, Proceedings 9* (pp. 24-33). Springer International Publishing.

- Kohn, A. (1999). Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes. Houghton Mifflin Harcourt
- Koivisto, J., & Hamari, J. (2019). The rise of motivational information systems: A review of gamification research. *International Journal of Information Management*, 45, 191-210.
- Koster, M., Minnaert, A. E., Nakken, H., Jan Pijl, S., & van Houten, E. J. (2011). Assessing social participation of students with special needs in inclusive education: Validation of the Social Participation Questionnaire. *Journal of Psychoeducational Assessment*, 29(3), 199-213.
- Landers, R. N., Auer, E. M., Helms, A., Marin, S., & Armstrong, M. B. (2019). Gamification of adult learning: Gamifying employee training and development. *The Cambridge handbook of technology and employee behavior*, 271-295.
- Le Blanc, D. (2020). E-participation: a quick overview of recent qualitative trends.
- Macintosh, A. (2004). Characterizing e-participation in policy-making. In *37th Annual Hawaii International Conference on System Sciences, 2004. Proceedings of the* (pp. 10-pp). IEEE.
- Majuri, J., Koivisto, J., & Hamari, J. (2018). Gamification of education and learning: A review of empirical literature. In *Proceedings of the 2nd international GamiFIN conference, GamiFIN 2018*. CEUR-WS.
- McGonigal, J., 2011. *Reality is broken: Why games make us better and how they can change the world*. Penguin.
- Mendez, A. (2020). Mentoring as a Holistic Approach to Social and Academic Integration.
- Meriläinen, N., Pietilä, I., & Varsaluoma, J. (2018, August). Digital services and youth participation in processes of social change: World Café workshops in Finland. In *ECPR General Conference Universität Hamburg*.
- Nicholson, S. (2013). Two paths to motivation through game design elements: Reward-based gamification and meaningful gamification.
- Official Statistics of Finland (OSF): Population structure [e-publication]. ISSN=1797-5395. Helsinki: Statistics Finland [referred: 26.9.2022]. Access method: [http://www.stat.fi/til/vaerak/index\\_en.html](http://www.stat.fi/til/vaerak/index_en.html)
- Peixoto, T., & Fox, J. (2016). When does ICT-enabled citizen voice lead to government responsiveness?.

- Pietilä, I., Meriläinen, N., Varsaluoma, J., & Väänänen, K. (2021). Understanding youths' needs for digital societal participation: towards an inclusive Virtual Council. *Behaviour & Information Technology*, 40(5), 483-496.
- Pietilä, I., Varsaluoma, J., & Väänänen, K. (2019). Understanding the digital and non-digital participation by the gaming youth. In *Human-Computer Interaction–INTERACT 2019: 17th IFIP TC 13 International Conference, Paphos, Cyprus, September 2–6, 2019, Proceedings, Part II 17* (pp. 453-471). Springer International Publishing.
- Rapp, A., Hopfgartner, F., Hamari, J., Linehan, C., & Cena, F. (2019). Strengthening gamification studies: Current trends and future opportunities of gamification research. *International Journal of Human-Computer Studies*, 127, 1-6.
- Sæbø, Ø., Rose, J., & Flak, L. S. (2008). The shape of eParticipation: Characterizing an emerging research area. *Government information quarterly*, 25(3), 400-428.
- Sailer, M., Hense, J., Mandl, H., & Klevers, M. (2013). Psychological perspectives on motivation through gamification. *Ixd&a*, 19(1), 28-37.
- Sgueo, G. (2017). Gamification, participatory democracy and engaged public (S). *University of Vienna" Activation–Self-Management–Overload Political Participation beyond the Post-democratic Turn*.
- Ten Brummelaar, M. D., Harder, A. T., Kalverboer, M. E., Post, W. J., & Knorth, E. J. (2018). Participation of youth in decision-making procedures during residential care: A narrative review. *Child & Family Social Work*, 23(1), 33-44.
- Thiel, S. K. (2016). A review of introducing game elements to e-participation. In *2016 conference for E-democracy and open government (CeDEM)* (pp. 3-9). IEEE.
- Törnbom, K., Törnbom, M., & Sunnerhagen, K. S. (2013). Experiences of participation in a Swedish society among adults with cerebral palsy or spina bifida: involvement and challenges. *Journal of social work in disability & rehabilitation*, 12(4), 256-271.
- United Nations, 2006. The Convention on the rights of persons with disabilities and optional protocol United Nations, New York (2006). Available on line: <http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>
- Wang, H., & Sun, C. T. (2011, September). Game reward systems: Gaming experiences and social meanings. In *DiGRA conference* (Vol. 114).

Welch, E. W. (2012). The rise of participative technologies in government. *Transformational government through eGov practice: Socioeconomic, cultural, and technological issues*, 347-367

Werbach, K., Hunter, D., & Dixon, W. (2012). *For the win: How game thinking can revolutionize your business* (Vol. 1). Philadelphia: Wharton digital press.

Werbach, K., & Hunter, D. (2015). *The gamification toolkit: dynamics, mechanics, and components for the win*. University of Pennsylvania Press.

WHO. (2011). World report on disability. Geneva: World Health Organization. Available online: <http://www.who.int/disabilities/worldreport/2011/report.pdf>

## Appendix 1 Interview Questions

### Digital Participation for Youth of different Cultures in Finland

To increase the societal participation, it is important to reduce the cultural differences and motivate the youth of different cultures to integrate into the society. Looking at this, we are digging to find a solution for increasing the societal participation for youth of different cultures through gamified application. To identify the reasons and to find the right solution for this, we will ask some questions in this interview.

#### Background Questions:

- Age
  - Country
  - Culture
1. how many years have you been living in Finland?
  2. Are you planning to stay in Finland in future?
  3. What are the challenges for integration in Finnish culture or society?
  4. Are you active in any kind of societal participation before?
  5. Have you ever taken any mentorship for any activity or program?
  6. Would you like to take mentorship for integration in Finnish culture or society?
    - If yes, please mention some reason.
  7. What sort of mentorship you would like to have for societal participation?

#### Societal Participation

Societal participation can be of all means like it can be for voting of any bill, discussing any dangerous issue, suggesting solutions to any problem, or helping individual/government/organizations in making the right decision for society. Increase in societal participation of youth will help the society in making equitable, fair, and sustainable outcomes. Now, I would like to ask you that:

- Which type of societal participation are you interested in?

#### Main Questions:

8. Do you think active societal participation can help the country and society? If yes, why? In what ways? Or if no, why not?
9. Do you think, comparing to Finnish people, if there is any difference in amount of societal participation by youth of different cultures?
  - If yes, what can be the reasons for it?

10. Do you think societal participation in Finland can be affected due to difference of cultures? If yes, why? If no, why not?
11. What are the basic elements which cause hindrances in participating the societal activities?
12. Do you think societal participation of youth of different cultures can have a positive impact on society? If yes, what sort of impact can they have? If no, why?

## **E-Participation**

e-participation platforms are those platforms which are used to engage people in public service delivery and decision-making by using information and communication technologies (Macintosh, 2004). It can also be referred to as a way of creating interaction among people and public administration as social activity with the help of ICT (Sæbø, Rose & Skiftenes Flak, 2008).

1. Have you ever used any e-participation platform or are you familiar with them?
  - Why and which one?
2. Do you think that an e-participation platform can help in increasing societal participation of youth of different cultures? Why/How?

## **Gamified Elements**

There are different gamified elements which are now being used for learning. It motivates people to learn different topics and keeps them engaged with that. There are some top gamified elements which are used for learning such as: badges, competitions, scores, leaderboards, levels and challenges.

- Badges: it provides recognition for the achievement.
  - Competitions: this keeps users competitive with others.
  - Scores: this shows accomplishments to the users.
  - Leaderboards: this provides analytics about the competition
  - Levels: this shows the path of learning with proficiency gain.
  - Challenges: the path of learning goals.
3. Do you know the above-mentioned gamification elements, or have you used these elements before? Where? Can you give examples?
  4. Would you like to use gamified elements in societal participation? if yes, why? If no, why



not?

### **Gamification Applications**

Gamified applications are used to enhance services, systems, activities, or engagements using gamified elements to motivate and engage the users.

5. How willing would you be to use gamified applications for societal participation?
6. Would gamified application motivate you to take interest in societal activities? Why yes/no?
7. What gamified elements or features you think can increase the societal participation of youth of different cultures in Finland?
  - Badges, leaderboard, competitions, scores, levels, or challenges? Please give some examples for selected elements.
8. What would you suggest to increase the societal participation of youth from different cultures?
9. Would you like to suggest any gamifying elements or approach to increase the societal participation of youth of different cultures in Finland?

Idea or concept at the ending of interview

### **Concept Questions**

1. What type of problems you want to see for societal participation and social integration in this platform?
2. Do you think there should be groups for discussions about societal participation?
3. What types of categories you want for societal participation and social integration?
4. What suggestions you want to give for improvement of design and gamification elements?
5. What other benefits you want from such platform?
6. How to improve the suggested design or about possible gamification elements?

## Appendix 2 Concept Evaluation Questions

1. What is the first impression coming in your mind after seeing this design?
2. Do you think this mob app could support the societal participation of youth of different cultures living in Finland? If yes why, if no, why not?
3. Do you think this mob app could support in solving the challenges of social integration for international youth? If yes, why, and how? If not, why not?
4. Do you think this mentorship feature motivates the youth for societal participation? If yes, why, if no, why not?
5. Do you think, the gamification elements used on this app could attract the youth for societal participation?
6. Do you think, the gamification elements used on this app could attract the youth for social integration?
7. Do you want to add any more features or gamification element on this web app? If yes, What kind of elements?
8. Do you want to suggest any further improvements for this web app?

## Appendix: 3 Consent Form I

# Research Study: Societal Participation of Youth of Different Cultures in Finland

You are requested to participate in a masters thesis research study at Tampere University which analyses the challenges and impact of societal participation of youth of different cultures residing in Finland. Through your participation, you will help us in explore the different aspects of societal participation including challenges and motivation of e-participation.

All the data will be saved securely and will be protected with password. All the recorded videos and consent form will be destroyed once the research study will be completed.

The results of the study will be reported anonymously and no one's privacy will be affected. Some of the interviews and results can be used for the final presentation of the study. Personal data of any participant will not be revealed. However, you can stop participating in the study at any point without mentioning the reason.

**Interviewee:** Vinod Kumar ([vinod.kumar@tuni.fi](mailto:vinod.kumar@tuni.fi))

### 1. Data Protection and Confidentiality \*

- I agree to participate in this interview and I lies in the age range of 16-25. I am aware that I can withdraw this consent completely or in part at any time before the submission of this thesis.
- I allow the interviewee to make recordings and transcriptions of this interview. The recordings and transcripts will only be available for the researchers, supervisors and examiners of this thesis.
- I agree to the publications of the quotes of this interview, I am aware that my identity could be revealed indirectly through the quotes and context of this interview.

### 2. To consent for the above terms, please enter your name (first name, last name) \*

Enter your answer

## Appendix: 4 Consent Form II

# Research Study: Societal Participation of Youth of Different Cultures in Finland

You are requested to analyze the iterated concept design of a masters thesis research study at Tampere University which covers the different features and programs of societal participation and social integration of youth of different cultures residing in Finland. Through your participation, you will help us in finding the different aspects of concept design for societal participation and social integration including mentorship and gamification feature of e-participation.

All the data will be saved securely and will be protected with password. All the recorded videos and consent form will be destroyed once the research study will be completed.

The results of the study will be reported anonymously and no one's privacy will be affected. Some of the interviews and results can be used for the final presentation of the study. Personal data of any participant will not be revealed. However, you can stop participating in the study at any point without mentioning the reason.

**Interviewee:** Vinod Kumar ([vinod.kumar@tuni.fi](mailto:vinod.kumar@tuni.fi))

### 1. Data Protection and Confidentiality \*

- I agree to participate in this interview and I lies in the age range of 16-25. I am aware that I can withdraw this consent completely or in part at any time before the submission of this thesis.
- I allow the interviewee to make recordings and transcriptions of this interview. The recordings and transcripts will only be available for the researchers, supervisors and examiners of this thesis.
- I agree to the publications of the quotes of this interview, I am aware that my identity could be revealed indirectly through the quotes and context of this interview.

### 2. To consent for the above terms, please enter your name (first name, last name) \*

Enter your answer