

Examination of Expert Views on Gamification Application Design Process: A Case of Providing Face-to-Face Relationship Motivation

Oyunlaştırılmış Uygulama Tasarım Sürecine İlişkin Uzman Görüşlerinin İncelenmesi: Yüz Yüze İlişki Motivasyonunun Sağlanması Örneği

Ezgi İLHAN 

Araştırma Makalesi Research Article

Başvuru Received: 07.01.2025 ■ Kabul Accepted: 25.04.2025

ABSTRACT

The concept of gamification is the adaptation of game elements to non-game environments for individual and social well-being. In recent years, gamified tools have been frequently preferred to improve behaviours. Within the scope of the study, the excessive use of smartphones, digitalization, and the increase in virtual networks, replacing physical and face-to-face social relationships, have been presented as examples of problem cases. The study emphasized the increase in the frequency of use of smartphones in daily life as a behaviour that needs to be regulated in terms of disrupting both the quality of life of individuals in terms of health, academic and professional success and their social relationships with others. The study examines the development processes of a mobile gamification application called PhoneFree, which was designed to shape smartphone usage behaviour and provide motivation for face-to-face relationships. The research includes three steps: obtaining views and suggestions from experts before preparing design prototypes, designing prototypes, and evaluating the proposed design by the same experts. The evaluations of six experts were collected through interviews and scales. The perspectives of these experts, especially on the application's purpose, belief in its usefulness, criteria for creating engagement, strengths and weaknesses and design elements, were summarized with their feelings and thoughts. Supporting the decisions made in the design development process with expert opinions revealed what the focus topics could be before a final product was obtained and tests were conducted with the end user. The research provides information on the theoretical and practical areas for improving future gamified application designs based on its emphasis

Keywords: Gamification, Mobile Application Design, Design Process, Social Wellness, Expert Evaluations.

Öz

Oyunlaştırma kavramı bireysel ve sosyal iyi oluş için oyun elemanlarının oyun dışı ortamlara adapte edilmesidir. Son yıllarda oyunlaştırılmış araçlar davranışları iyiye götürmek için sıkça tercih edilmektedir. Çalışma kapsamında akıllı telefonların aşırı kullanımı, dijitalleşme ve sanal ağların sayısındaki artışın, fiziksel ve yüz yüze sosyal ilişkilerin yerini alması bir problem tespiti örneği olarak ortaya koyulmuştur. Çalışma, akıllı telefonların günlük yaşamda kullanım sıklığının artışı hem bireylerin sağlık, akademik ve mesleki başarı bağlamında yaşam kalitesini hem de başkalarıyla sosyal ilişkilerini bozması açısından regüle edilmesi gereken bir davranış olarak vurgulanmıştır. Çalışma, akıllı telefon kullanım davranışını şekillendirmek ve yüz yüze ilişkiler için motivasyon sağlamak amacıyla tasarlanan PhoneFree adlı mobil oyunlaştırma uygulamasının gelişim süreçlerini ele almaktadır. Araştırma, tasarım prototiplerinin hazırlanmadan önce uzmanlardan görüş ve öneri alınması, prototiplerin tasarlanması ve önerilen tasarımın aynı uzmanlar tarafından değerlendirilmesinden oluşan üç basamak içermektedir. Altı uzmanın değerlendirmeleri görüşmeler ve ölçekler yoluyla toplanmıştır. Bu uzmanların özellikle uygulamanın hedefi, kullanışlılığına olan inanç, bağlılık yaratma kriterleri, güçlü ve zayıf yönleri ve tasarım elemanları başlıklarına ilişkin bakış açıları, his ve düşünceleriyle beraber özetlenmiştir. Tasarım geliştirme sürecinde verilen kararların uzman görüşleriyle desteklenmesi, henüz bitmiş bir ürün elde edilmeden ve son kullanıcıyla testler yapılmadan önce odak konuların neler olabileceğini ortaya koymuştur. Buradaki vurgular üzerinden araştırmanın gelecekteki oyunlaştırılmış uygulama tasarımlarının iyileştirilmesi için teorik olarak ve uygulama alanlarına bilgi sağladığı düşünülmektedir.

Anahtar Kelimeler: Oyunlaştırma, Mobil Uygulama Tasarımı, Tasarım Süreci, Sosyal İyilik, Uzman Değerlendirmeleri.



Introduction

Satisfaction with everyday activities affects wellness. Literature reviews and real-life observations indicate that day-to-day well-being is determined by social relationships to a significant extent (Dey et al., 2019; Stanković et al., 2021; Dwyer et al., 2018; Lachmann et al., 2018). Gamification emerges as an effective strategy to influence individuals about the tasks they tend to avoid positively and perceive as dull, exhausting, or difficult to complete. Deterding et al. (2011a) describe gamification as using game design elements in non-game contexts. This approach can boost motivation and encourage participation in otherwise unappealing activities.

This study presents information regarding gamification and gamified tools. It demonstrates the relationship between gamification and social well-being through examples of specific applications. It also provides insight into the importance of enhancing individual life quality to improve social welfare by identifying problems in the modern world. Based on a problem definition of an increase in virtual relationships and smartphone use, the study proposes a new gamification application design to address this problem. The designed application proposes to change human behaviour by providing motivation for face-to-face engagement and shortening the time spent using a smartphone. The steps and ideas for a new gamified mobile application are presented throughout the design process. The application called PhoneFree can be a potential

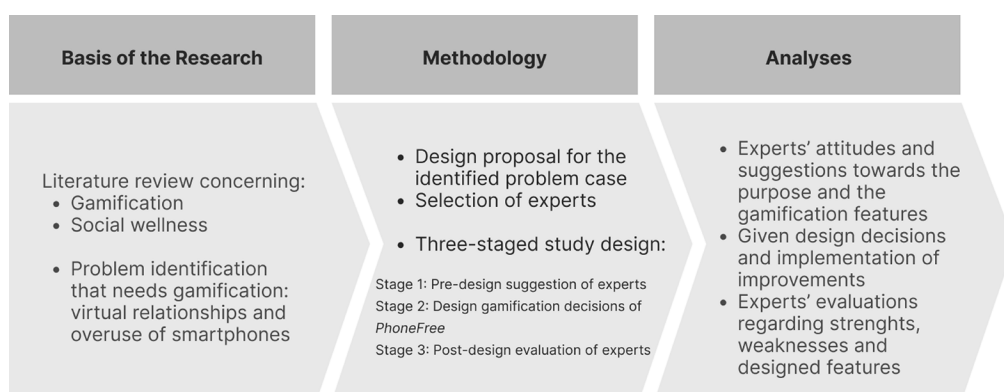
gamification mobile app candidate, intended both for health and behaviour change. It is intended as a helpful app to motivate and persuade its users to use their phones less.

In this study, the app's design proposal is shared with experts, and their perspectives are used to improve its features. This study aims to investigate the design process of a gamification application and its potential effects when it is finally presented to its end-users. The scope of the study focuses this purpose from the aspects of individual and social wellness and in terms of face-to-face sociality obtained by the experts' views. The structure of the study is presented in Figure 1.

This research includes a three-stage study related to the design process of the PhoneFree app and evaluations by experts. Initially, the app's purpose was explained to the experts before they saw its design in Stage 1. According to the suggestions and attitudes of the experts, usage scenarios, game designs, game elements and the progression path of the design were defined. Mock-ups were demonstrated. After the app design, prototypes with various functions, fun elements, and reward systems were presented and explained to the experts in detail, and their opinions and evaluations related to the application were collected in Stage 3. Experts' evaluations and criticism were used as valuable sources in eliminating negative aspects or adding necessary elements to future iterations of the application to publish the app as a product for its users.

Figure 1

The structure of the study



Accordingly, the research questions of the study are given below.

1. In what ways can expert opinions affect a gamification design process?
2. Can the suggested gamified app be promising to support its users in quitting a habit they spend most of their time on and are deeply attached to?

The two questions will be answered throughout the study. Especially for the study that aims to provide social wellness with a gamification design through a problem case, it is important to try to answer the second question through the intentions and approaches of the experts. In this study, it is planned to compare the mobile application, which contacts the experts before and after the development of design suggestions, with its users as the final product of the mobile application in the next step. Therefore, this research is evaluated as a prediction of the success of a potential product design from the expert's perspective before it is presented to the users.

Literature Review

This study focuses on the existing research on the importance of gaming for gamification studies, the use of gamification for wellness, and a daily problem case identification that needs a behavioural change in users.

From Gaming to Gamification

McGonigal (2011) believes that games are important elements for social good. Political, economic, social, and health-related problems can be solved using game elements by designing a simple game and enjoying gamification (Dolan, 2011). According to Garris et al. (2002), gamification leverages the motivational aspects of games to promote desired behaviours. The growth of gamification strategies stems from the widespread appeal of gaming itself. Deterding et al. (2011a) explain gamification as integrating game mechanics into non-game systems to enhance user involvement and improve the overall experience. To understand gamification better, one should examine the games first. Today, countless individuals dedicate several hours to

playing games on computers and various digital platforms. Newzoo's 2024 Global Games Market Report states that by 2026, the game market will have grown by 2.6% to reach a market size of \$187.7 billion (Wijman, 2021; Newzoo International, 2024). Parallel to games, Cloke (2023) highlights the growing interest in gamified systems, noting that the global gamification industry is projected to expand from \$9.1 billion in 2020 to \$30.7 billion by 2025, with a compound annual growth rate (CAGR) of 27.4%. A report from Gartner reveals that over 70% of Global 2000 companies have already incorporated gamification into their operations, and 87% of companies are expected to adopt gamified approaches within the next five years (Cloke, 2023). Additionally, Mordor Intelligence reports that the current value of the gamification market stands at \$15.43 billion and is forecasted to grow to \$48.72 billion by 2029 (Cowlshaw, 2025).

According to Marczewski (2013), the term "gamification" was initially introduced by Nick Pelling in 2002 to increase engagement. Users are more likely to achieve related goals more efficiently when they are fully engaged in an activity. Werbach (2012) highlights gamification as a valuable means to foster engagement in everyday tasks. Gartner (2011) supports this by emphasizing that gamification processes enhance user participation. In real-life situations, tasks and goals are often complex and time-consuming. However, gamification simplifies this by breaking goals into manageable, short-term objectives, which are easier to understand, practice, and repeat. Through instant feedback and small accomplishments, users can experience success more quickly, helping them remain engaged over extended periods.

Beyond basic definitions, gamification contributes meaningfully to individuals' psychological well-being. Baranowski et al. (2008) claim that gamification can persuade individuals to engage in necessary but generally unwelcome actions. Zichermann (2011) states that gamification stimulates both extrinsic and intrinsic motivation to attract users. Gamified tools commonly

encourage behaviour change or enhance motivation, ultimately supporting psychological, cognitive, and physical health. For this reason, the study explores gamification from a psychological perspective.

Gamification for Personal and Social Needs

Since gamification uses game features to engage and motivate people with the fun factor, it can potentially affect social subjects (Deterding et al., 2011b). It can be applied purposefully to different disciplines to structure human behaviour. According to McGonigal (2011), gamification creates meaningful and achievable goals that provide the feeling of success, ultimately changing human behaviour. It creates positive emotions regarding purposeful actions. It creates awareness regarding particular areas which need individual and social attention. It can lead to important changes in society. Braunstein (2013) states that gamification is effectively used for business, sustainability, education, and government issues. One of the important features of gamification is that it focuses on the real world's problems, real activities and real people. According to İlhan et al. (2022), gamification helps motivate people to achieve complex daily tasks. The study demonstrated positive changes related to the sleep-wake habits of users, including wake-up time, length of sleep, bedtime and the number of snoozes as a result of using a gamified mobile application. The application's features change tedious tasks into social fun.

Udara and De Alwis (2019) state that gamified tools work with software applications or hardware products to motivate people to track their daily activities, control their lifestyle, compare themselves with others on a social platform and get rewards for their success. Personal wellness applications constitute a large proportion of gamification applications (shortly, "apps" of handheld devices). Chou's (2025) research presents examples of gamification that turn life into a game regarding productivity, society, education, health, and financial habits. Since gamified apps record, follow and shape the daily activities of individuals

efficiently, it is possible to influence several habits with gamification.

Gamification tools are important in shaping a society since they are intensely related to social wellness. They can change human behaviour to achieve personal and social good. According to Xi and Hamari (2019), gamification can satisfy people's intrinsic motivations, such as psychological and emotional motivation. Social gamification features are positively relevant to autonomy and competence and are highly associated with fulfilling the need to belong. Thus, gamification can be used to motivate people in social-related activities. It can aid social well-being and positive psychology, developing new interpersonal connections. Gamification studies can benefit individuals, societies and even the world. In order to increase social well-being, individuals should be motivated by intrinsic and extrinsic rewards. Ryan and Deci (2000) believe that when a person acts with intrinsic motivations (out of desire and love, hence related to self-control) rather than extrinsic motivations (external control through rewards and other tangible forms of return), they will possibly realize their goal more easily.

Hamari et al. (2014) believe that people are influenced by their society, desire to be recognized and shape their behaviours according to other people. There are different examples of gamification which serve as social projects. With its point and reward system, gamification can be utilized for social responsibility purposes. I-kifu is an example which encourages people to help charities. People, non-profit organizations and businesses try to promote practical applications in health, environment, animal care and social wellness. These applications either utilize social media to create consciousness or economically support particular issues. The FavorTree app is an example of motivating people to social help. Gamification features such as sharing, connecting with other people and seeing one's development also increase the number of social aids, such as donations (i.e. Zynga's charity activities in Haiti).

Feng et al. (2021) report that self-tracking is important for health and well-being. Although the study indicates psychosocial consequences as a negative output of self-tracking, it suggests self-tracking as a means to find out users' cognitions and emotions to control societal aspects systematically. Nissan Leaf is an example of gamification, which aims to control social mechanisms. Tracking how a car is used, the application promotes energy consumption measures while driving by using points, leaderboards and rewards as leverage. Nike Rallies Running Community is another example of gamification, which donates money to challenged athletes as a reward for tracking the running distance covered by its users. Defining and explaining the objectives of the gamified app, reaching volunteer participants, properly tracking activities, prompting feedback, and motivating through rewards are key elements of social applications. These gamified applications can help people reach their goals and encourage them to be more helpful to each other. Thus, gamification can be a win-win solution for people and a related social goal.

Identified Problem Case for Social Wellness; Virtual Relations and Overuse of Smartphones

Gamification can contribute to relationship management and strengthen social relationships by helping people engage in meeting activities. A society's welfare depends on the social wellness of its individuals. A member's psychological well-being in a society affects other people, i.e. family and friends. Therefore, increasing the social wellness of individuals contributes to a society's general mental health. Encouraging people to socialize in face-to-face relationships rather than in a virtual world, especially in the case of overusing smartphones, can be achieved using gamification.

Social wellness is defined as leading positive relationships with other people and being a participating member of society. People spend most of their time with other people. Accordingly, social interactions affect psychology, health, and task completion. Vassileva (2012) states that technology and mobile applications connect

people in the virtual world so they can spend time, play or work together in that world. Online platforms can modify a person's habits. Bahr et al. (2009) state that social networks significantly affect people's behaviours. Affirmative habits can be improved when they are shared among family and friends. This effect will increase when face-to-face and real relations are encouraged rather than virtual platform engagement. Communication in the form of listening and talking to other people without interruptions increases meaningful connections among people, which can bring social well-being in the long term. Hence, the positive results of gamification can reflect on the real world in that it has the power to change real-world behaviour. According to Caballini et al. (2021), over the past two decades, the use of digital multimedia technologies considerably shifted forms of meetings and communication into virtual gatherings. Notably, during the COVID-19 pandemic, virtual communications played a crucial role instead of physical existence in social life as a safe, sustainable, and effective means of connection. Lee et al. (2020) also state people's habits shifted to virtual means of communication in place of physical transportation, work, and education, particularly during the COVID lockdown. However, communication and physical engagement are the key elements of permanent social connections, good psychology and a healthy life. Decreasing virtual engagement can be a starting point for physical communication and socialization. Reducing phone, computer or TV use can result in being more present in the real world rather than being lost in the virtual world.

The use of smartphones, smart devices and the internet has critically increased in modern society. Various studies suggest that smartphone use has become an important part of daily life. It is reported that the number of mobile phones was 8.31 billion worldwide (including 4.88 smartphone users, meaning 60.42% of the world's population) in 2024 (Turner, 2025). GSMA Intelligence reports that there are 5.78 billion unique smartphone users in 2025. Furthermore, 5.56 billion individuals, equivalent to 67.9% of the global population, use

the internet at the beginning of 2025 (Datareportal, 2025). The increase in smartphone usage, also increased the number of people who use their devices in every aspect of their lives. Smartphone functions in business, news, social media, games, etc., make it harder for users to drop their phones from their hands. Moreover, internet access provided by smartphones, regardless of location, increased the appeal factor of the product (Chiu et al., 2013).

Panova and Carbonell (2018) assert that smartphone use can be labelled as maladaptive behaviour. Many users live so attached to their phones most of the time, which causes anxiety when they are apart from these devices (Cheever et al., 2014; King et al., 2013). Smartphone overuse deteriorates users' physical, cognitive and economic well-being (Samaha and Hawi, 2016). This situation also brings some serious problems to users in three aspects, listed below.

1. Health Aspect: There are several studies which focus on the adverse effects of smartphone overuse on human health, including both physical and psychological effects (Fu et al., 2021; Mahapatra, 2019; Berolet al., 2011). Moreover, due to prolonged exposure to digital screens, smartphone overuse or addiction may result in physical and mental problems in the forms of eye strain, insomnia, sleep disorders, depression, anxiety and stress (Elhai et al., 2016; Panova and Lleras, 2016; Geng et al., 2021).

2. Social Aspect: People dedicate many hours of their social lives to their phones or smart devices. According to Junco and Cotten (2012), college students spend 100 minutes a day on average browsing social media and approximately an hour for e-mail conversations, and 97% of students use smartphones for social networking. Chóliz (2012) indicates that smartphone overuse causes relationship problems between parents and children. Dey et al. (2019) and Stanković et al. (2021) focus on the relationship between smartphone addiction, social anxiety and depression. Smartphone use may decrease the satisfaction

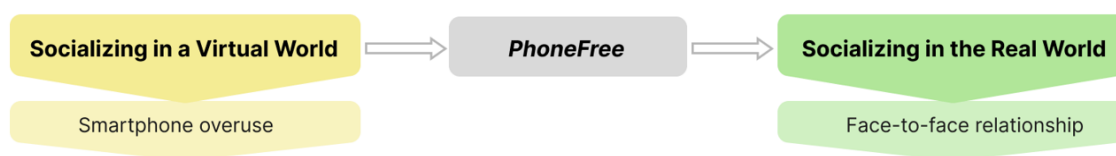
of daily face-to-face interactions, as well as impair the ability of empathy (Dwyer et al., 2018; Lachmann et al., 2018).

3. Academic or Professional Aspects: Aljomaa et al. (2016) reported that 48% of undergraduate university students are addicted to smartphones. Junco and Cotten (2012) state that if college students use social media or text while studying, they are more likely to get lower overall college grade points. Grant et al. (2019) asserted that intense smartphone use has an impact on emotional disorders and academic performance. Abbasi et al. (2021) state that young people tend to overuse smartphones, leading to poor academic performance, which may impact the user's well-being and, in turn, social welfare.

Vincente-Benito and Ramírez-Durán (2023) suggest that social wellness includes personal well-being besides welfare at neighbourhood and social levels. Dedicating time to friends and family and spending this time in an enjoyable and fulfilling way is necessary to improve social well-being. On the contrary, a lack of social well-being may result in social isolation. Bateman (2011) believes that the impact of social alienation on a person is as much as that of smoking, emphasizing that its impact on the immune system may lead to serious physical, biological, emotional and mental problems at the pathological level. Technological interruptions in life through phones or digital tools can also contribute to loneliness. These devices attract people to a virtual and more individual world, preventing individuals from creating close relationships in real life.

The literature review shows that gamification is utilized in various fields for social wellness. The importance of face-to-face human interactions instead of virtual networks and adequate usage of smartphones are emphasized as the determining factors of social relations. A gamification application that steers users away from virtual relationships and encourages them to establish genuine face-to-face relationships would support individual and social health, sociability, and

Figure 2
The purpose of a gamified app "PhoneFree"



academic or professional performance. The Break Free, Space, Screen Time applications listed at Google PlayStore and AppStore aim to allow users to regulate their time better on their smartphones. Focus or Zen Mode are features of operating systems aimed at preventing distractions caused by a smartphone for a certain amount of time. These apps and features are needed and used by millions of people out of concern for overusing smartphones. Although there are examples present, these examples are incomplete in terms of gamification content and fun factor, and therefore, a new mobile application design proposal of PhoneFree is introduced.

Methodology

This section presents the design proposal of the gamified application developed for the study to help solve the identified problem case according to the literature. It elaborates on the approach to improve the design decisions with the help of expert opinions while describing the selection process of game experts, the design procedure, and the data collection tools.

Design Proposal

Literature research indicates a critical increase in virtual relations and the prominent overuse of smartphones in society. The time people spend on their phones should be minimized for healthy personal growth and, in turn, a healthy society. A process was designed, building on this problem case, as part of the study to use a mobile application to instil awareness in smartphone users to regulate their smartphone use better. It is believed that it could contribute to a more conscious usage of smartphones. Therefore, gamification would be helpful for the individual's health and social benefits if it takes attraction to the problem of overusing smartphones, which engages people

in a virtual world. This study presents a newly designed mobile application titled PhoneFree, which intends to improve smartphone usage behaviour through gamification. The purpose of the application is demonstrated in Figure 2.

The purpose of the application is to encourage people to engage in face-to-face engagement rather than socializing in a virtual world. The application aims to persuade smartphone users to shorten the time they spend on their phones. PhoneFree is a role-based application that aims to connect people socially or help them attain better concentration in their work, thus improving their quality of life. It aims to help smartphone users prioritize natural, real-life experiences such as social participation, entertainment, studying, working, sleeping, etc., instead of overspending time on their phones.

Choice of Expert Consultation Approach

Several existing studies demonstrate the vital role of focus groups and expert consultation, as well as using the existing literature findings as a source for academic research. According to (Gallarza et al., 2017), expert opinions and judgments are vital to support evidence-based decision-making, foster innovation, and ensure research relevance and rigour across a wide range of academic and professional domains. Expert judgment serves as a foundational component in enhancing the accuracy, relevance, and applicability of research outcomes across various fields. Experts support the validation of the research or the effectiveness of models presented in the related study (Secchettin et al., 2025). Similarly, the formulation of standardized reporting protocols can be grounded by expert groups due to their opinions and consensus, underscoring the value of informed professional input (Bartlett et al., 2025).

Table 1

Detailed information of the experts

Expert	Age	Gender	Proficiency	Years of experience
1	37	Female	Game analyst and gamification expert (Master's Degree, Computer Animations and Game Technologies Program)	11
2	39	Female	Game designer	12
3	41	Male	Software engineer and game developer	13
4	43	Male	Computer engineer and game developer	19
5	44	Male	Gamification expert and game designer	18
6	49	Male	Game designer and lecturer (Master's Degree, Computer Animations and Game Technologies Program)	21

In the study of Kim et al. (2025), integrating expert insights with academic and practitioner literature has facilitated the identification of critical trends and research directions. Two international expert panels comprising academics and industry practitioners were consulted to explore the research themes further.

Expertise has also proven essential in guiding technical innovations. To illustrate, expert knowledge informed material selection, while simulation techniques facilitated structural optimization, which validated the feasibility of a simulation-first design strategy for intelligent systems (Cao et al., 2024). Likewise, in educational research, a two-phase evaluation of a newly designed process benefited from expert feedback. Initial focus groups informed key improvements, which were later validated by a second group of experts who reported increased usability and expressed interest in the embedded gamification elements (Bernardo et al., 2025).

An expert consultation approach is applied to this study to improve the gamified app before it is

presented to the end users. In this way, the design proposal against the identified problem case, the lack of gamification elements, and the app features can be revealed and analyzed based on experts' views.

Selection of Experts

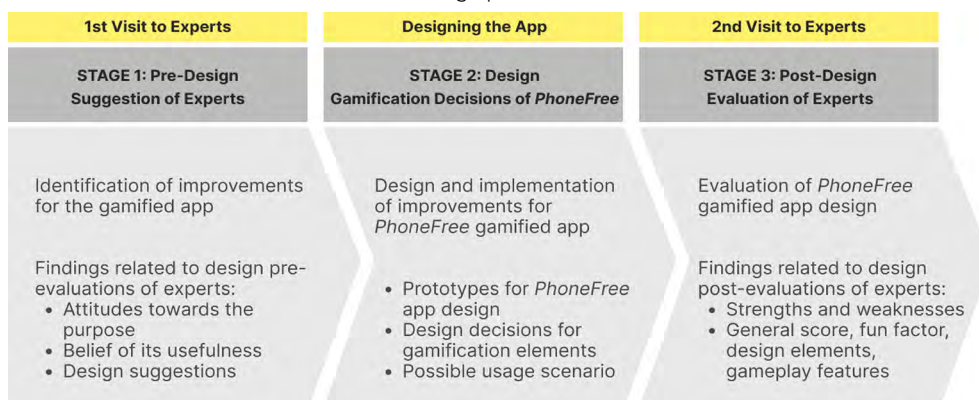
To ensure the application's success, it was initially and finally presented to game experts to collect their suggestions and evaluations. The first designs of PhoneFree, as paper prototypes, were presented to six professionals in the videogame industry. These experts have worked as video game designers, game developers or gamification researchers for at least 10 years. Detailed information of the experts is given in Table 1.

Design Procedure and Data Collection Tools

The study's design procedure included three stages. The experts were visited twice just before the app was designed to understand the insights related to the subject and the need for that kind of app. The first visit to the focus group of experts was executed in the pre-design stage of the gamified

Figure 3

Design procedure



app. Then, the app was designed according to the experts' first evaluations. The second visit to experts was carried out after the app was designed to collect post-evaluations regarding the app's features. The study design is given in Figure 3.

As shown in the figure, In Stage 1, the experts were interviewed face-to-face to reveal their views, focusing on the app's purpose, general attitude and evaluation before the app was designed. Three questions were asked of the experts in the pre-design suggestion stage, as given below.

- ▶ Q1. What do you think about the purpose of the designed application?
- ▶ Q2. Do you believe that this app would be useful? If there is such an existing app, would you want to use it?
- ▶ Q3. What do you suggest making this app more engaging?

In Stage 2, the PhoneFree gamification design was implemented with paper mock-ups by a team of two members. One worked on the design part, whereas the other focused on the app's technical developments. The game designer graduated from the industrial design department and proposed design decisions, outlines and visuals. The game developer graduated from the computer engineering department and coded the system to show the prototype of different pages with quantitative effects of actions and functions of menu items.

In Stage 3, after the design was prototyped, the design proposal was shown to the experts again to reveal the strengths and weaknesses of design elements and their future suggestions. The questions listed below were asked to the experts regarding design elements, decisions and future suggestions.

- ▶ Q4. What can be the possible strengths or weaknesses of that kind of gamified app for you?
- ▶ Q5. What would you recommend improving the design of the application?

The experts were finally asked to evaluate the application and its design elements using a 5-point scale. This scale aims to understand the level of satisfaction with a feature. The questions asked to the experts are related to their general score for this app and evaluation score regarding fun, overall design and gameplay elements.

Results

The study's findings including the pre-design suggestions of experts, gamification design decisions of the PhoneFree app and post-design evaluation of experts (see Figure 3), are explained in this section.

STAGE 1: Pre-Design Suggestion

This section gives the findings related to pre-design attitudes and the experts' suggestions. Evaluations of six experts related to the early design decisions of PhoneFree were analysed qualitatively. Before questions, the experts' initial assessments were interpreted. The general attitude of the experts was positive towards the purpose of the application. They showed excitement for the app since they believe there is a serious problem in social relationships due to the overuse of phones. One of the experts highlighted that a high percentage of divorces were caused by smartphone usage. He also added that the researchers at his university were researching accidents due to phone usage. Two experts were puzzled and hostile to hear that the application tries to decrease phone usage by using a mobile application. They did not believe in the need for people to reduce their phone usage.

Related to the app's purpose (Q1), the four experts explained that the overuse of phones is a modern-day problem. They criticized the world for having a severe problem today, which can be described as a lack of communication. Therefore, they believed that the study touched upon a crucial issue. Especially for the period after the pandemic, the emphasis on social interactions and face-to-face engagement became more vital. Accurate and concrete relationships rather than artificial environments are critical for societies. However,

people are uninterested in others and seem indifferent to their environment. Thus, overuse of phones causes serious health and social problems.

On the other hand, two experts remarked that it is inappropriate to limit phone use. It would be absurd in the modern world. Decreasing smartphone usage using a gamified mobile application can be difficult because there is irony in using a mobile application for this purpose. If it works, it would be a successful method for smartphone addicts. Moreover, one game developer specified that he wants more people to be addicted to phones because he is developing games for mobile. Some interesting answers of the experts to Q1 are given below.

E3: "The world has a severe problem today, which can be described as a lack of communication. Therefore, the study touched upon a crucial issue."

E1: "This situation is a modern-day problem. Social interactions and face-to-face engagement are important. However, people are not interested in other people and seem indifferent to their environment. Thus, overuse of phones causes serious problems in terms of health and social aspects."

E2: "It is inappropriate to limit phone use. It would be absurd in the modern world."

Five experts responded positively to the intention to use this app (Q2). They indicated that they would want and love to use it if such an app existed. They believed that it would be advantageous to improve real-life relationships. They would like to use an application that limits mobile usage to reduce unnecessary use. One expert emphasized the regret of being unable to spend time with other responsibilities and family because of the time spent on the phone. Another expert claimed that he generally uses his phone sparingly. If he did, he would want to get help from this application. One of the experts focused on the context, which is critical for the usage decision. For example, while travelling by bus, he wants to read the news from X (Twitter). However, he can use the application in social meetings to avoid prioritizing his phone over real-life engagement. On the contrary, one expert indicated that he would not want to use this application.

All experts responded in Q3, suggesting designing an engaging app for the people. This engagement should make use of game dynamics, mechanics and components. They all focused on efficiently using points, badges and leaderboards (PBL) system. They should provide information about players' progress and achievements in the system; in other words, they should emphasize the participants' improvements in face-to-face relationships. Two experts suggested designing game components such as quests, gifts, social graphs, levels, and rules. Three of them also gave importance to giving instant feedback to the users to inform them of the process. As game mechanics, they suggested having challenges, cooperation and competitions, and winning and losing conditions in the app. As for game dynamics, they recommended adding emotional factors for the users that ease the way to create a meaningful relationship with the app. It should also include narration and show progression.

Three experts are vitally focused on the Self Determination Theory (SDT) of Deci and Ryan (2000), which states that the gamified elements should satisfy the users' autonomy, competence, and relatedness needs. Thus, this app must use these features to effectively reach its purposes. One expert indicated that this app should trigger intrinsic motivations to regulate people's behaviours. However, it may create extrinsic motivation to stay at the external, introjected or identified regulation levels.

STAGE 2: Design Decisions of PhoneFree App

According to the first evaluations and pre-design suggestions of the experts that were given in Stage 1, the design decisions of the PhoneFree app were taken. The app is designed with different pages that serve differentiated functions. There are five buttons on the main screen: My Progress, Leaderboard, Quests, Achievements and Home. However, in the first encounter with the app, the Leaderboard and Achievements sections are locked, and the user unlocks them when they collect points.

The user is allowed to use their phone in some instances, as defined by a rule set in the app. The app must identify specific cases when phone usage might be necessary without disrupting the goal. These cases are identified below.

- ▶ Answering an incoming call or making a call
- ▶ Unlocking the phone without taking an additional action (can be just for checking time)
- ▶ Reading pop-up messages without taking additional action

Other actions on the phone will be classified as phone usage by the app. The usage scenario will include the following steps once a user downloads the app from an app store to their smartphone.

Onboarding, Scaffolding and Mastery:

- ▶ Initially, the user is prompted to choose a character as their avatar according to how they intend to use the application. The character can be female or male, blonde or brunette, with glasses or moustache. Choosing a character to symbolize self creates a more entertaining application experience.
- ▶ The app then starts measuring how many hours the users stay away from their phone, and it uses this information to construct a profile for the related user.
- ▶ The app prompts its users with basic quests to leave their phones for relatively short durations (i.e. 10 minutes). Figure 4 demonstrates the “Quests” page, which features some challenges

for users through to-do tasks. Users who achieve these quests get experience points to level up and unlock new quests.

- ▶ The app tracks phone usage to form schedules for the user. After a while, it creates specialized and personalized quests. The app also notes the hours users frequently check and use their phones. It grants higher points to users when they stop using their phones during these busy hours. Moreover, the app defines and adjusts points personally by tracking user actions.
- ▶ After gaining some experience points in the app, the users receive more challenging quests (leaving the phone for 2-3 hours in the personal highest usage times). The app also provides an option to create objectives regarding the hours of phone usage in the form of a to-do list. By determining special hours for leaving their phone, users can more easily change their habits related to smartphone usage.

Progress Tracking and Sociality:

- ▶ The users can easily follow the durations of their phone usage using the app. The “My Progress” button brings the user to the page, including a table demonstrating their daily, weekly and monthly data with visual elements, as shown in Figure 4. It keeps and shows statistical data for durations of personal phone usage.
- ▶ As shown in Figure 4, the user will have some notable titles, such as “Master Socializer” or “Phone Addict”, on the application’s Home

Figure 4

Different pages (Quests, My Progress, Home, respectively) of PhoneFree



Figure 5

Achievements page of PhoneFree in times of success and failure



page, depending on their phone usage habits. The user can share their in-game status through social media connections.

- After a user finishes a quest, the app asks, “Where did you spend your time instead of using your phone?” Five options exist: Family, Friends, Spouse, Work or Hobby. The user selects the most approximate option. Each item has a corresponding bar that indicates how much users have ignored their social life or entertainment and what parts of their lives they are trading in exchange for using a smartphone. Each item has its points, levels, mastery and achievement titles. For example, if users leave their phones and spend time with their families, then they would have the chance to receive and increase family points. They would level up and be rewarded with a “Family Master” title based on their collected points. These titles and levels will be indicators for users to self-evaluate their success in the long run. All these titles would provide intrinsic motivation for players while demonstrating statistical data. For instance, if a user intends to uphold positive relations with their family, they would be encouraged to spend time with them instead of on their phone.
- Gaining enough points unlocks the Leaderboard, which is used to check personal

rankings among friends. Like in the My Progress list, the user can see and compare their ranking among friends on a list under Leaderboard. Since the app keeps user information based on a reading of the users' contact lists, the users can automatically see the rankings of their friends who also use the application and challenge them.

- Social competition scores reset monthly, but the achievements are kept in a permanent list under Achievements. Figure 5 shows the Achievements screen. The success achieved by leaving one's phone is demonstrated in entertaining visuals. Users can share their improved avatars with their friends. For example, users can create a family portrait or a hobby-based portrait through their avatar, using visual elements of the app. If users overuse their phones, their avatars will be downgraded, as shown in Figure 5.
- The app can also detect the location of its user. If the friends in the app are in the same vicinity, the app kicks off challenges such as “while with your friends, do not use your phone for 2 hours”, which earns users multiplied points. To encourage PhoneFree as a social app, cafes and restaurants might offer tangible rewards, such as complimentary beverages, for successful application users.

Figure 6

Evaluations of the experts focusing on the strengths and weaknesses of the app

Strengths	Weaknesses
<ul style="list-style-type: none"> • The purpose and idea of the application are interesting. • The application's success would create a dedicated social network. • There is a serious need for genuine relationships. When families or friends meet, they pass the time on their phones without fundamental interactions such as face-to-face engagement and dialogue. • This network would include young users who would be encouraged to engage in face-to-face relationships. • The application is enjoyable. It can motivate people with enjoyable visuals. • Management of activities and their positive or negative reflection on those hours on the avatar is fun. • It is good to see how much time is spent on different aspects, activities, and with people in daily life. • Statistical timekeeping over how long participants spend with their families, friends, or work can be helpful. • Task management can help organize one's life. It is nice to plan the day and be reminded. • Creating a profile with an enjoyable avatar and checking the progress of time spent on special activities (family, friends, or hobbies) are interesting game mechanics to endorse self-regulation. • The application has the power to create an alternative network. Although using social media is popular nowadays, it will lose its attraction in the future, similar to watching TV or eating fast food. Thus, using phones will no longer be a "cool" habit. 	<ul style="list-style-type: none"> • There is a paradox and challenge in using a mobile application to avoid overusing one's smartphone. • The gamification elements have no equivalent in the real world. For instance, when somebody shares a PhoneFree achievement on X (old Twitter), it can be interpreted as "using a smartphone to share achievement", which is a negative view of the application. • A challenging aspect of the application is that since it addresses real addictions, it can take much work to persuade prospective users to adopt the application deliberately. It might be required to design the application in a way that will create intrinsic motivation in its users with entertaining elements and tangible rewards. • Smartphone addicts would hardly install this application on their phones because they have no complaints about their situations. Adversely, people using their phones less often would not need this application. • If it has too much of a reminder role, it can also take up one's time. • Smartphone addicts do not use the app to earn xp or to share via social media. The app must block the phone and be unblocked when someone achieves something functional.

STAGE 3: Post-Design Evaluation

The prototype of the app, exemplified in Stage 2, is presented to the experts in Stage 3. In this section, the satisfaction level of the gamification elements is analysed along with the strengths and weaknesses of the gamified application. The experts' comments regarding the strong and weak features of the app design (Q4) are shown in Figure 6.

The experts mainly focus on the importance of that kind of app design, emphasizing its purpose and future potential to affect its users' behaviours positively. On the other hand, they focus on the risks of the app design in being useful and helpful for people with an addiction. The weaknesses of the app mentioned by the experts can also be improved by their suggestions (Q5).

E1: *"The designers should add tangible rewards such as awarding vacations to successful participants. Some rewards may motivate people to socialize in real life. However, this application aimed to create intrinsic motivations rather than provide extrinsic rewards. Thus, giving additional rewards may contradict the purpose of the application, which inherently requires a high level*

of voluntariness towards personal changes."

E6: *"The app needs to make deals with cafes, cinemas, etc., as an effective means to reach the goals the application sets. Cafes or restaurants may support this application's use due to its future potential."*

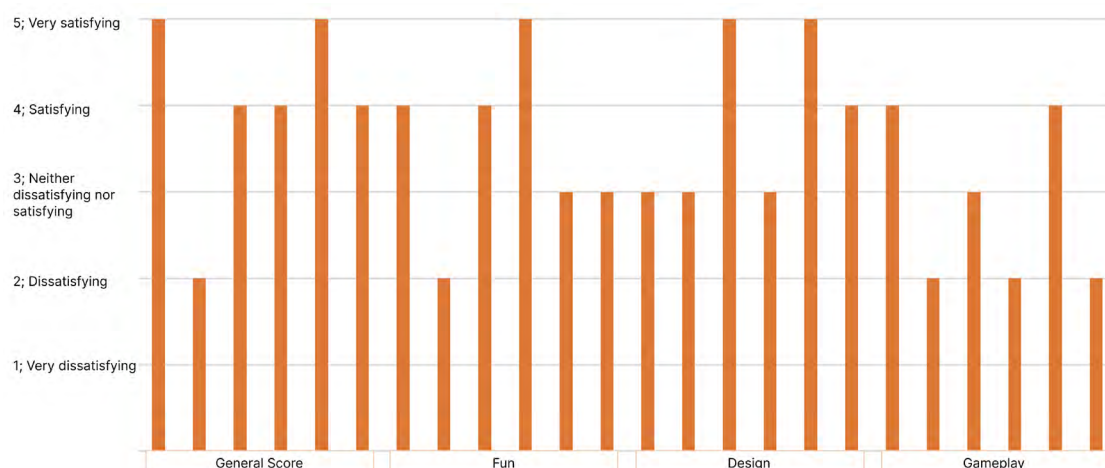
E2: *"I recommend an application locking permission for PhoneFree. If the application locks one of the user's favourite applications, for instance, Instagram, the user should then need to achieve success points so as not to overuse their phone. Then Instagram could be unlocked when the user collects certain points."*

E4: *"The application can lock the user out of the phone in certain cases, such as when driving."*

E1: *"I suggest adding vibration features to the application. Hence, the application would be able to warn the user without the user needing to look at their phone."*

E2: *"I recommend adding more functions to challenge the user."*

Table 2
The evaluations of experts related to design



E5: *"I suggest adding critical social sharing features. The more people it reaches, the more enjoyable and applicable the awareness movement for face-to-face interaction will be."*

E3: *"I believe that the application could strengthen face-to-face relationships in the long term. In order to promote using the application for as long as it takes to get real results, users can be given options to share their milestones with their network, which would take certain periods to complete."*

Besides these recommendations, the experts evaluated the app design's general purpose and design-related elements. The experts were asked about the content of the gamified app, including general score, fun factor, design elements, and gameplay features. According to the experts' evaluations, the answers were coded on a 5-point scale indicating the features' success level (5; very satisfying, 4; satisfying, 3; neither dissatisfying nor satisfying, 2; dissatisfying, 1; very dissatisfying). The answers to the questions asked by the experts related to the general attitude and the design elements are visualized in Table 2.

The average score of evaluations was obtained approximately at the satisfied level for the general attitude score and the design elements (i.e., visual elements, level design, challenging factors and achievements in the application). The general score of six experts towards the application showed that

they were satisfied with this app proposition (their scores were 24 out of 30). Their evaluation of the design elements of the application was between satisfied and neither satisfied nor satisfied, which was related to the fun factor (21) and design elements (23). Flow elements of gameplay, on the other hand, were evaluated with the lowest mean score since the experts believed that the application would bore its users after a while due to a lack of motivational features. They thought the app was neither satisfying nor satisfying and dissatisfying regarding gameplay features (17).

Discussion and Conclusions

This study provides general information regarding gamification and social wellness. It elaborates on interpersonal relationships in virtual media and the real world and the severity of smartphone addiction in society. The study also explores the need for successful relationships, which would make a practical starting point for improving the application designed for the study. Social interactions and relationships have begun in more virtual environments with the pandemic. In recent years, digital systems and smartphones have gradually taken up more significant parts of our lives (Vassileva, 2012; Caballini et al., 2021). Using many applications for many purposes, such as connecting with other people, consuming educational content, playing games, using social media, etc., resulted in smartphone overuse or addiction, which caused social distances among

Table 3

Focused topics and experts' views during the gamified application design process

Main focus	Experts' perspectives
Purpose:	Feelings: Excitement Thoughts: Real and serious problem identification supported with examples, inappropriate to limit phone use in the modern world
Usefulness/ tendency to use:	Feelings: Love, regret, dislike Thoughts: Higher intention, advantageous
Engagement:	Feelings: Motivate Thoughts: Importance of game components like points, badges, leaderboards, quests, gifts, social graphs, levels, rules, instant feedback, challenges, cooperation and competitions, winning and losing conditions, emotional factors, meaningful relationships, navigation; use of Self Determination Theory including autonomy, competence, and relatedness; intrinsic motivations to regulate people's behaviours
Strengths:	Feelings: Interest Thoughts: Dedicated social network, awareness for young users, enjoyable visuals and avatars, task management, statistical timekeeping, reminder, self-regulation, alternative network
Weaknesses:	Feelings: Confuse Thoughts: Using a smartphone paradox, hard to persuade, not being aware of that kind of a need, negative feedback given by the app
Design features:	Feelings: Enjoy, boredom, fun Thoughts: Visual elements, level design, challenging factors and achievements, weak flow due to lack of motivational features

people in real life, deteriorating social relationships and social wellness. In other words, face-to-face engagement and real-life interaction could not be established (Samaha and Hawi, 2016; Grant et al., 2019; Vincente-Benito and Ramírez-Durán, 2023). This study discussed aspects of social wellness within the context of the overuse of smartphones. In literature, gamification is proposed as a valuable tool for changing established ideas and behaviours of people, including those in terms of social wellness and personal responsibilities (Baranowski et al., 2008; Zichermann, 2011; Chou, 2025; Braunstein, 2013). Thus, the study proposed a new mobile gamification application whose design decisions and details are built upon a review of the literature and the experts in this area. The study aimed to elaborate on the premise of designing a gamified mobile application by incorporating views from experts in the field of gaming, as emphasized in the studies of Gallarza et al. (2017), Kim et al. (2025) and Bernardo et al. (2025).

The research questions of the study are answered below.

1. In what ways can expert opinions affect a gamification design process?

This study contributes to an understanding of experts' views on PhoneFree mobile app design that focuses on the overuse of smartphones and

its adverse effects on individual and social well-being. In order to draw attention to this issue for society and eliminate the identified personal problems, the design of PhoneFree was analyzed in terms of its purposes and gamification features. The main focuses emphasized in the research, and the experts' approach to them are summarized in Table 3.

The questions asked to the experts focused on the main subjects given in Table 3 and were detailed with the experts' perspectives supported by their feelings and key thoughts. It was considered that defining the purpose clearly and usefulness well in a design process is important for improving design studies and positioning it for users. It was revealed that a consensus was established between the literature, experts and PhoneFree's designers regarding the purposes and necessity of the application.

Engagement was put forward as another topic to be focused on in gamification studies to connect users to the application and products and ensure that they use it repeatedly and sustainably. It was seen that experts contributed to the design process with their detailed comments and alternative solution suggestions regarding engagement.

In cases where designs cannot be tested with real users because the design is still being developed, the concepts of strengths and weaknesses become critical. These concepts help designers to minimize weaknesses and empower the strengths more in design processes. Preparations were made to take steps in this regard by knowing the possible advantages and disadvantages the design would offer the user. For example, it was thought that for someone who had not realized that they were using their phone a lot, awareness could be raised on this issue through triggers such as pleasant visuals and statistical timekeeping, which they would direct themselves through self-regulation.

Another important focus point for the study was to query design features regarding gamification. Expert approaches on general score, fun, design and gameplay properties were questioned. It was decided to minimize features that could cause the application to be boring and focus on interactive designs with visually satisfying flows, offer fun challenges, and allow the user to develop.

2. Can the suggested gamified app be promising to support its users in quitting a habit they spend most of their time on and are deeply attached to?

This research provided experts with consultation on design processes during the development process before the final product that would be presented to the users. It is inferred that gamification can be effective as a means to solve the social problem on which the study focuses. The potential to improve human behaviour through this application was determined through expert views. PhoneFree's gamification design was presented to experts so they could receive their feedback and evaluations using questions and satisfaction scales regarding the app's features. Their views and opinions were considerably positive (Table 3). Thus, it can be deduced that this type of gamified app would create the potential drive to overcome smartphone overuse and other types of addiction in the long term.

The findings of this study, with the outcomes obtained from the expert opinions, showed that people spend much time on their phones, as stated in the literature. However, as Feng et al. (2021) stated, self-tracking is important for health and well-being, which gamification can provide. The experts also emphasized that motivational factors in PhoneFree, such as classifying the time spent with family or friends and gaining achievements on specific topics, can regulate phone usage habits or raise awareness about returning to face-to-face relationships. In addition, as stated in the literature (Dey et al., 2019; Stanković et al., 2021; Dwyer et al., 2018; Lachmann et al., 2018), the experts also stated that social relationships can feed day-to-day well-being and that in this regard, the PhoneFree gamified design would create an engaging experience with the help of quests and challenges in the long term.

Limitation and Future Work

This study has not yet been presented to users because it focuses on expert views of a product still under development. The scope of the study is to describe the design development phase, determine the focal points here, and be a guide for future gamification applications to be designed like this. The study's most significant limitation is that the product has not yet reached the stage of use by real users due to its scope. Therefore, issues such as user reactions, usage difficulties, and long-term behavioural change observations have not been included. However, the potential successes of the gamified application have been presented through experts' opinions.

In future studies, this gamification design can be improved in light of experts' evaluations of the end-product version. The application can be made available to end users after the proposed design changes and developments are implemented. The inclination to change individual behaviours, i.e. prioritizing face-to-face interactions, for better outcomes related to social wellness, would be obtained and evaluated after long-term usage of the application.

When the product/app is published to the market, it is expected to be utilized by smartphone users who have trouble overusing their phones. The expected user profile for this application is that of individuals willing to change their smartphone usage behaviours. According to the experts' suggestions and evaluations, creating intrinsic user motivation using game elements and fun factors is prioritized over provoking extrinsic motivations. Giving users additional tangible rewards may contradict the purpose of the application, which inherently would require a high level of voluntariness to change.

In this study, one of the limitations and contradictions is designing a mobile app to overcome smartphone overuse. However, it was indicated at the beginning of the study that this method was chosen consciously and purposefully. Trying to completely separate users from an innovative tool that meets people's mobile needs is unrealistic in this modern world. Using a smartphone is a conscious choice because it would still allow the user to interact with their phone, albeit for a limited time, and efficiently network with other users for the gamified application. In future studies, such a gamified tool can be designed with another type of interaction and presented to the user.

References

- Abbasi, G.A., Jagaveeran, M., Goh, Y.-N., & Tariq, B. (2021). The impact of type of content use on smartphone addiction and academic performance: Physical activity as moderator. *Technology in Society*, 64 (2021), 101521. ISSN 0160-791X, <https://doi.org/10.1016/j.techsoc.2020.101521>.
- Aljomaa, S. S., Mohammad, M. F., Albursan, I. S., Bakhiat, S. F., & Abduljabbar, A. S. (2016). Smartphone addiction among university students in the light of some variables. *Computers in Human Behavior*, 61 (2016), 155–164. doi:10.1016/j.chb.2016.03.041
- Bahr, D.B., Browning, R.C., Wyatt, H.R., & Hill, J.O. (2009). Exploiting social networks to mitigate the obesity epidemic. *Obesity*, 17 (4), 723-728.
- Baranowski, T., Buday, R., Thompson, D.I., & Baranowski, J. (2008). Playing for real: Video games and stories for health-related behavior change. *American Journal of Preventive Medicine*, 34 (1), 74-82.
- Bartlett, W., Sandberg, S., Carobene, A., Fernandez-Calle, P., Diaz-Garzon, J., Coskun, A., Jonker, N., Galior, K., Gonzales-Lao, E., Moreno-Parro, I., Sufrate-Vergara, B., Webster, C., Itkonen, O., Marques-García, F., & Aarsand, A. (2025). A standard to report biological variation data studies – based on an expert opinion. *Clinical Chemistry and Laboratory Medicine (CCLM)*, 63(1), 52-59. <https://doi.org/10.1515/cclm-2024-0489>
- Bateman, R. (2011). *Social wellness, what it is & why you need it (at any age)*. Retrieved from <https://socialwellness.wordpress.com/what-social-wellness-is/> (accessed 17 January 2024).
- Bernardo, J., Pires, F., Rheiner, S., Pessoa, M., & Conte, T. (2025). Would I use it? A study with experts exploring game design storytelling as a facilitating process for creating educational gamification. In *Proceedings of the 17th International Conference on Computer Supported Education - Volume 1: CSEdu*; ISBN 978-989-758-746-7; ISSN 2184-5026, SciTePress, pages 436-443. DOI: 10.5220/0013294600003932
- Berolo, S., Wells, R.P., Amick 3rd, B.C. (2011). Musculoskeletal symptoms among mobile hand-held device users and their relationship to device use: a preliminary study in a canadian university population. *Applied Ergonomics*, 42 (2), 371-378.
- Braunstein, D. (2013). *Gamification: An introduction to its potential*. Retrieved from http://www.huffingtonpost.com/danya-braunstein/gamification-an-introduct_b_3167566.html (accessed 2 January 2024).
- Caballini, C., Agostino, M., & Chiara, B.D. (2021). Physical mobility and virtual communication in

Italy: Trends, analytical relationships and policies for the post COVID-19, *Transport Policy*, 110 (2021), 314-334. ISSN 0967-070X, <https://doi.org/10.1016/j.tranpol.2021.06.007>.

Cao, W., Li, X., Chen, Y., Jin, L., Guo, R., Song, N., Sun, S., & Ding, P. (2024). Boosting the intelligent development of electromagnetic shielding polymer composites by expert knowledge. *Advanced Functional Materials*, 35(1), 2406738. <https://doi.org/10.1002/adfm.202406738>

Cheever, N., Rosen, L., Carrier, L. M., & Chavez, A. (2014). Out of sight is not out of mind: The impact of restricting wireless mobile device use on anxiety levels among low, moderate and high users. *Computers in Human Behavior*, 37 (2014), 290–297. doi:10.1016/j.chb.2014.05.002

Chiu, S.-I., Hong, F.-Y., & Chiu, S.-L. (2013). An analysis on the correlation and gender difference between college students' Internet addiction and mobile phone addiction in Taiwan. *International Scholarly Research Notices Addiction*, 2013, Article 360607. <http://dx.doi.org/10.1155/2013/360607>

Chóliz, M. (2012). Mobile-phone addiction in adolescence: The test of mobile phone dependence (TMD). *Progress in Health Sciences*, 2 (1), 33-44.

Chou, Y. (2025). *Gamification examples: The fully comprehensive list (2025)*. Retrieved from <https://yukaichou.com/gamification-examples/#.WvltuFSpnyU> (accessed 15 April 2025).

Cloke, H. (2023). *19 gamification trends for 2023-2025: Top stats, facts & examples*. Retrieved from <https://www.growthengineering.co.uk/19-gamification-trends-for-2022-2025-top-stats-facts-examples/> (accessed 7 April 2025).

Cowlshaw, R. (2025). *25+ gamification statistics you need to know in 2025*. Retrieved from <https://www.amplifai.com/blog/gamification-statistics#gamification-statistic-22> (accessed 9 April 2025).

Datareportal Research (2025). *Digital around the world*. Retrieved from <https://datareportal.com/global-digital-overview#:~:text=There%20are%205.22%20billion%20unique,of%201.8%20percent%20per%20year>. (accessed 9 April 2025).

Deterding, S., Sicart, M., Nacke, L., O'Hara, K., & Dixon, D. (2011a). Gamification: Using game design elements in non-gaming contexts. *Proceedings of the CHI 2011* (pp. 2425-2428). Vancouver, Canada: ACM.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011b). From game design elements to gamefulness: Defining "gamification". *Proceedings of the 15th International Academic MindTrek Conference 2011* (pp. 9-15). New York, USA: ACM.

Dey, M., Studer, J., Schaub, M. P., Gmel, G., Ebert, D. D., Lee, J. Y. C., & Haug, S. (2019). Problematic smartphone use in young Swiss men: Its association with problematic substance use and risk factors derived from the pathway model. *Journal of Behavioral Addictions*, 8(2), 326–334. doi:10.1556/2006.8.2019.17

Dolan, B. (2011). *Mobile, social, fun: Games for health*. Retrieved from <http://mobihealthnews.com/15031/mobile-social-fun-games-for-health/> (accessed 22 January 2024).

Dwyer, R. J., Kushlev, K., & Dunn, E. W. (2018). Smartphone use undermines enjoyment of face-to-face social interactions. *Journal of Experimental Social Psychology*, 78 (2018), 233–239. doi:10.1016/j.jesp.2017.10.007

Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*, 63 (2016), 509–516. doi:10.1016/j.chb.2016.05.079

Feng, S., Mäntymäki, M., Dhir, A., & Salmela, H. (2021). How self-tracking and the quantified self promote health and well-being: Systematic review. *Journal of Medical Internet Research*, 23

(9), e25171 doi: 10.2196/25171.

Fu, S., Chen, X., & Zheng, H. (2021). Exploring an adverse impact of smartphone overuse on academic performance via health issues: A stimulus-organism-response perspective. *Behaviour & Information Technology*, 40 (7), 663–675. <https://doi.org/10.1080/0144929X.2020.1716848>

Gallarza, M. G., Arteaga, F., Del Chiappa, G., Gil-Saura, I., & Holbrook, M. B. (2017). A multidimensional service-value scale based on Holbrook's typology of customer value: Bridging the gap between the concept and its measurement. *Journal of Service Management*, 28(4), 724–762. <https://doi.org/10.1108/JOSM-06-2016-0166>

Garris, R., Ahlers, R., & Driskell, J. E. (2002). Games, motivation, and learning: A research and practice model. *Simulation and Gaming*, 33 (4), 441–467.

Gartner Research (2011). Gartner says by 2015, more than 50 percent of organizations that manage innovation processes will gamify those processes. Paper presented at the *Gartner Enterprise Architecture Summit*, London, May 9, 2011.

Geng, Y.; Gu, J.; Wang, J., & Zhang, R. (2021). Smartphone addiction and depression, anxiety: The role of bedtime procrastination and self-control. *Journal of Affective Disorders*, 293 (2021), 415–421, ISSN 0165-0327, <https://doi.org/10.1016/j.jad.2021.06.062>.

Grant, J. E., Lust, K., & Chamberlain, S. R. (2019). Problematic smartphone use associated with greater alcohol consumption, mental health issues, poorer academic performance, and impulsivity. *Journal of Behavioral Addictions*, 8(2), 335–342. doi:10.1556/2006.8.2019.32

Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? – A literature review of empirical studies on gamification. *Proceedings of the 47th Hawaii International Conference on System Sciences 2014*, (pp. 3025–3034). Hawaii, USA: IEEE.

Ilhan, A. E., Sener, B., & Hacıhabiboglu, H. (2022). Improving sleep-wake behaviors using mobile app gamification. *Entertainment Computing*, 40, 100454. <https://doi.org/10.1016/j.entcom.2021.100454>

Junco, R., & Cotten, S.R. (2012). No A 4 U: The relationship between multitasking and academic performance. *Computers & Education*, 59 (2), 505–514.

Kim, H., So, K. K. F., Shin, S., & Li, J. (2025). Artificial intelligence in hospitality and tourism: Insights from industry practices, research literature, and expert opinions. *Journal of Hospitality & Tourism Research*, 49(2), 366–385. <https://doi.org/10.1177/10963480241229235> (Original work published 2025)

King, A. L., Valença, A. M., Silva, A. C., Baczynski, T., Carvalho, M. R., & Nardi, A. E. (2013). Nomophobia: Dependency on virtual environments or social phobia? *Computers in Human Behavior*, 29 (1), 140–144. doi:10.1016/j.chb.2012.07.025

Lachmann, B., Sindermann, C., Sariyska, R. Y., Luo, R., Melchers, M. C., Becker, B., Cooper, A. J., & Montag, C. (2018). The role of empathy and life satisfaction in Internet and smartphone use disorder. *Frontiers in Psychology*, 9. doi:10.3389/fpsyg.2018.00398

Lee, H., Park, S. J., Lee, G. R., Kim, J. E., Lee, J. H., Jung, Y., & Nam, E. W. (2020). The Relationship between the COVID-19 prevalence trend and transportation trend in South Korea. *International Journal of Infectious Diseases*, 96 (2020), 399–407. <https://doi.org/10.1016/j.ijid.2020.05.031>

Mahapatra, S. (2019). Smartphone addiction and associated consequences: Role of loneliness and self-regulation. *Behaviour & Information Technology*, 38 (8), 833–844. <https://doi.org/10.1080/0144929X.2018.1560499>

Marczewski, A. (2013). *Gamification: A Simple Introduction & A Bit More (2nd ed.)*. Kindle edition.

McGonigal, J. (2011). *Reality is Broken: Why Games Make Us Better and How They Can Change the World*. New York: Penguin Press.

Newzoo International B.V. (2024). *Newzoo's Global Games Market Report 2024*. Retrieved from <https://newzoo.com/resources/trend-reports/newzoos-global-games-market-report-2024-free-version> (accessed 13 November 2024).

Panova, T., & Carbonell, X. (2018). Is Smartphone addiction really an addiction? *Journal of Behavioral Addictions*, 7 (2), 252–259. <https://doi.org/10.1556/2006.7.2018.49>

Panova, T., & Lleras, A. (2016). Avoidance or boredom: Negative mental health outcomes associated with use of information and communication technologies depend on users' motivations. *Computers in Human Behavior*, 58 (2016), 249–258. doi:10.1016/j.chb.2015.12.062

Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55 (1), 68–78.

Samaha, M. & Hawi, N.S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57 (2016), 321–325. <https://doi.org/10.1016/j.chb.2015.12.045>

Secchettin, E., Paiella, S., Azzolina, D., Casciani, F., Salvia, R., Malleo, G., & Gregori, D. (2025). Expert judgment supporting a bayesian network to model the survival of pancreatic cancer patients. *Cancers*, 17(2), 301. <https://doi.org/10.3390/cancers17020301>

Stanković, M., Nešić, M., Čičević, S., & Shi, Z. (2021). Association of smartphone use with depression, anxiety, sleep quality, and internet addiction. empirical evidence from a smartphone application. *Personality and Individual Differences*, 168 (2021), 110342. <https://doi.org/10.1016/j.paid.2020.110342>.

Turner, A. (2025). How Many Smartphones are in the World? (2025) Retrieved from <https://www.bankmycell.com/blog/how-many-phones-are-in-the-world#sources> (accessed 7 April 2025).

Udara, S.W.I. & De Alwis, A.K. (2019). Gamification for healthcare and well-being. *Global Journal of Medical Research*, 19 (4), 1-6.

Vassileva, J. (2012). Motivating participation in social computing applications: A user modeling perspective. *User Modeling and User-Adapted Interaction*, 22 (1), 177-201.

Vincente-Benito, I. & Ramírez-Durán, M.D.V. (2023). Influence of social media use on body image and well-being among adolescents and young adults: A systematic review. *Journal of Psychosocial Nursing and Mental Health Services*, 61 (12): 11-18. doi: 10.3928/02793695-20230524-02. Epub 2023 Jun 2. PMID: 37256748.

Werbach, K. (2012). *Definition of gamification*. Retrieved through Coursera from <https://class.coursera.org/gamification-2012-001/lecture/index#close> (accessed 25 February 2023).

Wijman, T. (2021). *Newzoo's 2021 Global Games Market Report*. Retrieved from <https://newzoo.com/insights/trend-reports/newzoo-global-games-market-report-2021-free-version/> (accessed 13 November 2021).

Xi, N. & Hamari, J. (2019). Does gamification satisfy needs? A study on the relationship between gamification features and intrinsic need satisfaction, *International Journal of Information Management*, 46 (2019), 210-221, <https://doi.org/10.1016/j.ijinfomgt.2018.12.002>.

Zichermann, G. (2011). Intrinsic and extrinsic motivation in gamification. Paper presented at the *Gamification Summit*, San Francisco, October 27, 2011.

Genişletilmiş Özet

Oyunlaştırma, bireysel ve toplumsal iyi oluşu etkileyebilecek bir araçtır.. Oyunlar ve oyunlaştırma araçları özerklik, yeterlilik ve ait olma ihtiyacının karşılanmasıyla yüksek düzeyde ilişkili olduğu için insan davranışını değiştirebilir, insanların psikolojik ve duygusal motivasyon gibi içsel motivasyonlarını tatmin edebilir.

Modern toplumda akıllı telefonların, akıllı cihazların ve internetin kullanımının büyük ölçüde artması ve yaşanan pandemi gibi zor süreçler insanların birbirleriyle geçirdiği kaliteli zamanları sekteye uğratmıştır. Sosyal sağlıklı yaşam, diğer insanlarla olumlu ilişkiler sürdürmek ve toplumun katılımcı bir üyesi olmak olarak tanımlanırken, günümüz koşullarında bireysel ve sosyal iyi oluşun giderek azaldığı görülmektedir. Olumlu duygular, kendine güven ve stresin üstesinden gelme gücü, kişinin sosyal açıdan olumlu bir durumda olmasıyla ilişkilendirilir. Diğer insanlarla geçirilen zamanlarda sosyalleşme kalitesinin artması, yaşam standartlarının yükselmesine yardımcı olur. Kesintisiz dinleme ve konuşma şeklindeki iletişim, insanlar arasındaki anlamlı bağlantıları artırır ve bu da uzun vadede sosyal iyileşmeyi getirebilir.

Bu çalışmada, son senelerde hayatımıza giren akıllı telefonların aşırı kullanımı, dijitalleşme ve sayısı gün geçtikçe artmakta olan çevrim içi platformlar ve sanal ilişki ağlarının, fiziksel ve yüz yüze kurulan sosyal ilişkilerin yerini alması, hatta onlara zarar vermesi bir problem olarak ele alınmıştır. Araştırma, akıllı telefonların günlük yaşamda yüksek oranda kullanılmasının, kişinin sağlık, sosyal ilişkiler, akademik veya mesleki başarı açısından yaşam kalitesini bozduğuna odaklanmıştır. Bu bağlamda, kişisel iyi oluş ve sosyal ilişkilere eskiden olduğu gibi yüz yüze iletişim kurarak geri dönüş yoluyla sosyal iyi oluşa ilişkin motivasyon yaratabilecek potansiyel bir güç olarak oyunlaştırma kavramı üzerinde durulmuştur.

Araştırmanın temel soruları, akıllı telefonları aşırı kullanım alışkanlığının, oyunlaştırılmış bir uygulama desteğiyle yeniden şekillendirilmesinin

mümkün olabilme ihtimalini ve bu süreçte sosyal ilişkiler içerisinde yüz yüze etkileşimle ilgili yeni farkındalıklar sağlama eğilimini anlamaya odaklanmıştır. Çalışma için yeni tasarlanmış olan PhoneFree adındaki mobil oyunlaştırma uygulamasının tasarım kararları uzman görüşleri odağında kurgulanmıştır. Çalışma uzman görüşlerinin değerlendirildiği tasarım öncesi faz, tasarım önerilerinin anlatıldığı ikinci faz ve tasarım önerilerinin uzmanlar tarafından değerlendirildiği tasarım sonrası faz olmak üzere üç aşamada tamamlanmıştır. Araştırmaya bilgisayar oyunu alanında çalışan uzmanların seçimi için olasılık dışı, amaçlı örneklem yöntemi kullanılmıştır. Katılımcıların sene bazında alana katkıları düşünülerek, diğerlerinden daha bilgili oldukları ortaya çıkarılanlar araştırma kapsamına dahil edilmiş ve seçim sırasında bu konuda profesyonel geçmişli olan araştırma yürütücüsü tarafından amaca yönelik olarak değerlendirilmiştir. Örneklem, bu doğrultuda homojen bir yapıda (video oyunları alanında uzmanlardan oluşan) ve maksatlı bir çerçevede (esnek deneysel çerçevede yarı yapılandırılmış görüşmeler süresinde şekillenen) belirlenmiştir.

Uygulamanın görselleri tasarlanmış ve farklı işlevlere odaklanan ekran tasarımlarının prototipleri hazırlanmıştır. Seçilen altı uzmana kullanım senaryosu, oyun tasarımı, oyun elemanları, oyunda ilerleme, çeşitli fonksiyonlar, eğlence unsurları ve ödül sistemleri odağında sunulmasından sonra, uzmanların değerlendirmeleri mülakatlar ve ölçek aracılığıyla toplanmıştır. Veri toplarken daha fazla özgürlük sağlayacak esnek tasarım yöntemi kullanılmasıyla deneysel süreçler boyunca açığa çıkarılan cevapların yönlendirdiği konularla ilgili detay soruların eklenerek uzman görüşlerinden en fazla verimin alınabilmesi hedeflenmiştir. Uzmanlarla görüşülürken onlara sorulan soruların yanıtlarının ses kaydı alınmıştır. Çalışmada elde edilen nitel verilerindeşifredilmesi(transkripsiyon), önemli anahtar başlıklarla kodlanması ve tematik analizlerinin gerçekleştirilmesi sağlanmıştır. Çalışma bulgularının güvenilirliği için üçgenleme önemli görülmüştür. Ölçek ve mülakatların beraber yürütülmesinin araştırmaya geçerlilik

ve güvenilirlik bağlamında katkı sunacağı düşünülmüştür. Aynı uzmanların farklı boyutlarda değerlendirmelerini anlayabilmek için veri üçgenlemesi ile sağlamalar yapılmıştır. Karma veri toplama ve analizi çalışmanın geçerlilik, güvenlik ve genellenebilirliğiyle ilgili bilimsel niteliği olması için önemli görülmüştür.

Bu tasarımın olası etkileri ve sonuçlarını açığa çıkarmak için oyun alanındaki uzmanlardan yardım alınmıştır. Uzmanlar, temelde uygulamanın amaçları, yaratacağı fayda, kullanıcıyı bağlayıcılık unsurları, güçlü ve zayıf yönleri ve tasarıma ilişkin unsurlarını kendi perspektiflerinden detaylı şekilde değerlendirmiştir. Tasarım geliştirme aşamaları, mevcut çalışmalar ve uzmanlardan alınan görüşlerin sunulduğu bu araştırmada son ürün elde edilmeden ve son kullanıcıyla buluşmadan alınabilecek tasarım kararları ortaya koyulmuştur. Böylece gerçek kullanıcılarla karşılaşmadan önce, daha tasarım aşamasındayken bir ürünün dikkat çeken ve vurgu yapılan özellikleri çıkarılmıştır. Uygulamanın spesifik tasarım öğelerine ilişkin değerlendirme puanlarının eğlenceyle ve tasarımla ilgili “çok memnunum” düzeyine ulaşmadığı görülmüş, ancak genel tutum puanı ve tasarım öğeleri (görsel öğeler, seviye tasarımı, zorlayıcı faktörler ve uygulamadaki kazanımlar) açısından “memnunum” düzeyinde değerlendirme elde edilmiştir. Uzmanlar uygulamanın farklı eğlence elemanlarıyla desteklenmediği sürece bir süre sonra kullanıcılarını sıkacağına inandıkları için PhoneFree’nin akış elemanlarını, memnun değilim ile nötr düzeyi arasındaki en düşük değerlendirmeye yorumlamıştır. Ayrıca uzman değerlendirmeleri yüz yüze iletişimle sosyal ilişkileri güçlendirecek şekilde bireysel davranışların değiştirilmesine yönelik önerileri ortaya koymuştur. Uygulamanın hedefleri, uygulamayı kullanma isteği, olumlu veya olumsuz özellikler ve geliştirme önerilerine ilişkin toplanan nitel veriler, bu tür bir oyunlaştırılmış uygulamanın, uzun vadede akıllı telefonların aşırı kullanımı ve diğer bağımlılık türlerinin üstesinden gelmek için potansiyel bir dürtü yaratacağını vurgulamıştır.

Her ne kadar çalışmanın başında bu yöntemin

bilinçli ve amaca yönelik seçildiği belirtilmiş olsa da kullanıcıları yüz yüze ilişkilere motive etmek ve akıllı telefonların aşırı kullanımının üstesinden gelmek için mobil uygulama önerisinin bir çelişki olduğu belirtilmiştir. Araştırmada akıllı telefon kullanımının seçilmesinin sebebi sınırlı bir süre için de olsa kullanıcının telefonuyla etkileşime girmesine, onunla bağıni tam koparmamış gibi hissetmesine ve oyunlaştırılmış uygulamanın amaçları doğrultusunda diğer kullanıcılarla kolayca ağ kurmasına olanak tanınması olmuştur. Dolayısıyla uygulama, kullanıcısının akıllı telefon bağımlılığını regüle ederken, aynı zamanda onu izole de etmemeyi hedeflemiştir. Bu doğrultuda sonuçlar, gelecekteki oyun ve oyunlaştırılmış uygulama tasarımlarının iyileştirilmesine yönelik pratik alana bir bilgi kaynağı oluşturmıştır. Benzer hedefleri olan uygulamalarda dışsal motivasyonları hedeflemek yerine oyun öğelerini ve eğlence faktörünü kullanarak içsel kullanıcı motivasyonu yaratmanın ön planda tutulması gerektiğini vurgulamıştır.

Yazar Bilgileri

Author details

1-(**Sorumlu Yazar Corresponding Author**) Dr. Öğr. Üyesi, Gazi Üniversitesi Mimarlık Fakültesi, ayseezgiilhan@gazi.edu.tr.

Destekleyen Kurum/Kuruluşlar

Supporting-Sponsor Institutions or Organizations:

Herhangi bir kurum/kuruluştan destek alınmamıştır. None

Çıkar Çatışması

Conflict of Interest

Herhangi bir çıkar çatışması bulunmamaktadır. None

Kaynak Göstermek İçin

To Cite This Article

İlhan, E. (2025). Examination of expert views on gamification application design process: A case of providing face-to-face relationship motivation. *Yeni Medya*, (18), 21-42, <https://doi.org/10.55609/yenimedya.1614735>