

Healing Games: Power of Behavioral Design in Improving Resilience

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Abstract

Games are a non-separable part of almost all human kinds live. There are majority of research by psychologists on the negative effects of “gaming”: the potential harm related to violence, addiction, and depression. We recognize the value of that research; however, we argue that world need a positive perspective toward games healing potential. Considering these potential benefits is important, in part, because the nature of these games has changed dramatically in the last decade, becoming increasingly complex, diverse, realistic, and social in nature. A small but significant body of research has begun to emerge, mostly in the last years, documenting these benefits. In this article, we summarize the research on the positive effects of games in the field of resilience. By integrating insights from game design, game-fulness, and positive psychology, as well as psychological capital, we propose some candidate mechanisms by which playing games may foster real-world psychosocial benefits or by extracting the positive dimensions of game and translating them into real life. Our aim is to provide strong enough evidence and a theoretical rationale to inspire new programs of research on the largely unexplored mental health benefits of gaming. Finally, we end with a propose to empirically use of what we have been learn from the games nature to improve people resilience in action

Keywords: Game, Gamification, Behavioral Design, Resilience

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Introduction

Healing games refer to This assumption that games have the capacity to help people to solve many problems in real life. This claim has both historical and scientific background (Arber, 2016; Garlic et al. 2013). The importance of the issue becomes more apparent when, according to Pink (2005), we believe that the ideology of work and life has faced fundamental changes. Pink's New York Times and Business Week bestseller, *A Whole New Mind*, conveys new ideologies of the 21st century worker in a clear and digestible narrative. Pink argues that man has evolved from an agriculture age (farmers) to the Industrial age (factory workers) to the Information age (knowledge workers) according to an increase in affluence, technology, and globalization. Pink's major focus lies in the transition from the Information age to what he calls the conceptual age of the 21st century. The conceptual age focuses on two macro components: high concept and high touch. For live and work in this age, people need different competencies. Pink (2005) articulates these specific skills of success for the conceptual age worker as design, story, symphony, empathy, play, and meaning. To be Success in Conceptual Age people need to have some different attributes. One of important characteristics that people may have is resilience and games have potentials to increase resilience of people, teams and nations.

Unlike to what most of us think, recently games have been in the spotlight as one of the phenomena that are able to promote and improve many diseases, including issues related to mental health and mental well-being. With the growth of the gaming industry, a set of new tools that have therapeutic and educational potential are emerging.

Despite the emerging hype regarding the gamification of interventions in the health and educational sciences, caution is also warranted. The most important reason is that very few of the games developed to improve health

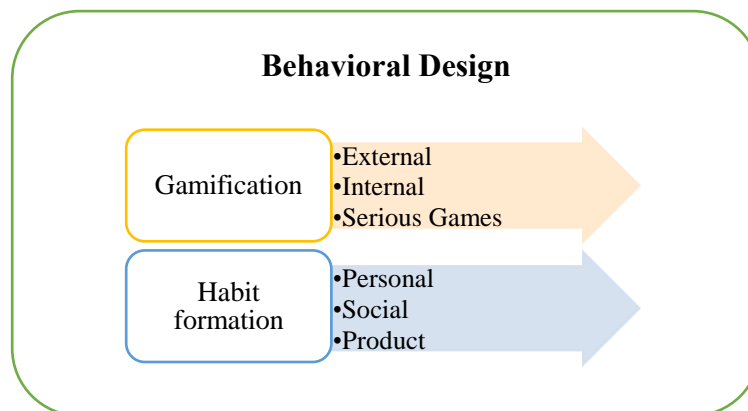
and learning outcomes are ever scientifically evaluated. As a result, it is still unknown how much more effective these games are in changing behavioral and health outcomes than are conventional approaches (Granic et al, 2013). Based on this argument the main question of this research is that: are games have the potentials to increase the resilience?

Literature review

Behavioral design and gamification

Behavioral design is a sub-category of design, which is concerned with how design can shape, or be used to influence human behavior (Lockton et al, 2010). Behavioral Design is a systematic understanding of how people think and how they make decisions. This understanding forms the basis of thinking about interventions that lead to behavioral change (Niedderer et al, 2014). Behavioral design can be applied in two ways: Gamification and habit formation.

Gamification is the strategic attempt to enhance systems, services, organizations, and activities by creating similar experiences to those experienced when playing games in order to motivate and engage users. This is generally accomplished through the application of game-design elements and game principles (dynamics and mechanics) in non-game contexts (Hamari, 2019; Deterding et al, 2011; Robson et al, 2015).



Pic1. type of behavior design

Games and Resilience

Games belong to a larger field called behavior design. On the other hand, it can be mentioned that the origin and cause of many of our diseases are wrong behavioral habits, they are called behavioral diseases, and among them are anxiety, depression, obesity, blood pressure, laziness, etc. Cited. So, by using a series of behavioral interventions and habit modification, they can be cured. Games are enormously popular among adolescents and young adults and the widespread interest in the learning and motivation benefits of games especially serious games has been discussed before (Mohammadian, 2022). For a long time, games such as role-playing have been used to learn and develop skills such as facing fears. Or things like construction games and group discussions are used for group therapy and mental rehabilitation. Although the research in this field is at the beginning of its path, but the effort to understand the healing potential of games has begun. Recent research conducted by American psychologists have shown that games can be much cheaper and more effective ways to relieve many pains (Granic et al, 2013).

Some studies have proven that all games have therapeutic properties, and this potential is not limited to certain games (Arber, 2016).

Research conducted on people playing Angry Birds has shown that this game influences reducing anxiety and relaxing people.

Sally et al (2012) shows that people had fewer negative thoughts after playing the game.

Nesta (2016) by developing games that were based on wearable technologies shows that people have been able to improve their resilience. This finding was in line with other research that were conducted with the biofeedback approach.

In another study, McGonigal (2016), by designing a game called Super Better, showed that the game activates parts of the brain that are related to motivation, learning, and central purpose. According to him, these parts are areas of the brain that are the opposite of depression.

Game Based Resilience

Based on McGonigal research people who learn resilience from game are named Super Empowered Hopeful Individuals. These people have four attributes, urgent optimism, social fabric, blissful productivity and Epic Meaning (McGonigal, 2016).

Urgent Optimism:

A self-motivator, a passion for immediate action, overcoming obstacles, combined with a belief in victory and a rational hope for it. Gamers usually hope to win, which makes them fail again and again but continue the game again (McGonigal, 2016).

Social Fabric:

Research shows that we like the people we play with more, even if they beat us. The reason for this phenomenon can be found in the fact that when you play boxing, a large amount of oxytocin hormone is released in your brain. Oxytocin is the hormone of trust (McGonigal, 2016).

Blissful Productivity:

Research has shown that when a person is offered something with meaning, he shows more effort to achieve his goal and pursues it with more energy. According to these studies, people are happier in the game than ever before, and when the work has this aspect of the game in its heart, it will be more productive (McGonigal, 2016).

Epic Meaning:

People who play a game like to be given inspiring missions. After the game, they create and tell epic stories about their success and failure. These people can change the world and solve problems by themselves. Solving problems is part of their identity and leads them to feel meaningful in their work and life (McGonigal, 2016).

Conclusion and discussion

In organizational behavior research, Luthans (2002) defined resiliency as “the positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure or even positive change, progress, and increased responsibility” (p. 702). Research shows that people who spend hours playing games, experience more resilience on average. There are several types of resilience that are recommended to upgrade based on the game:

Use positive emotions. Since the ratio of negative to positive emotions is 1 to 3, as a result, positive emotions will last longer and be more contagious. Therefore, more efforts should be made to keep the atmosphere of the organization positive. Resilience has been frequently associated with positive emotions, especially when experienced during failure events. However, the psychological processes that might allow resilient individuals to self-generate those positive emotions have been mostly overlooked (Philippe et al, 2009).

Building social ties. To improve resilience, there should be at least 2 to 3 people in your life so that you can heal yourself quickly with their communication if needed. Humans have a strong need to connect and relate with other individuals by developing cooperation and perspective-taking. The ability to make social connections, group living, and sharing resources had a selective advantage in coping with physical and psychological stress. Social bonds provide resilience to people’s approach while adjusting and adapting to situations, thus presents fitness benefits at both group and individual levels (Agathe et al, 2021).

Define challenging assignments. Humans prefer goals that are more challenging and their level of involvement in these tasks is higher. This high passion prevents early surrender, failure and discouragement.

Based on the topics that were raised, it seems that a lot of quantitative and qualitative research should be done on the effects of games in real life. Therefore, interested researchers are recommended to pay special attention to this matter.

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