Identifying Struggling Students: Exploring Student Factors Such as Gaming Addiction Which Lead to Grade Retention and Other Challenges
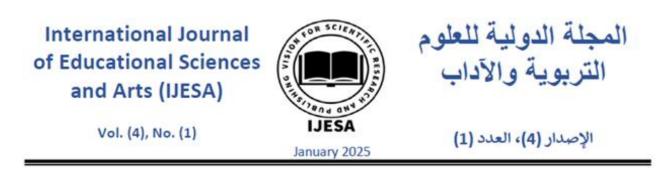
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Abstract

This study is part of a Capstone project developed during an immersion phase in Orange County, Florida, and explores the impact of excessive technology use, specifically gaming addiction, on student behavior and academic performance. Observations from eight years of teaching and two years of counseling in Saudi middle schools revealed that students exhibiting disruptive behaviors often had excessive engagement with electronic devices. The project employed workshops and surveys to raise awareness about video game addiction and its associated symptoms, such as depression, social isolation, and strained relationships with parents and teachers. The study incorporated qualitative and quantitative data from parents and school counselors to propose strategies aligned with Vision 2030's goal of fostering student engagement and success. Key findings indicated the pressing need for targeted interventions to address gaming addiction among students. By leveraging insights from the immersion phase and incorporating feedback from stakeholders, the study presents innovative approaches to support Saudi students in overcoming technology-related challenges. These findings underscore the potential for sustainable educational improvements through practical and evidence-based solutions.
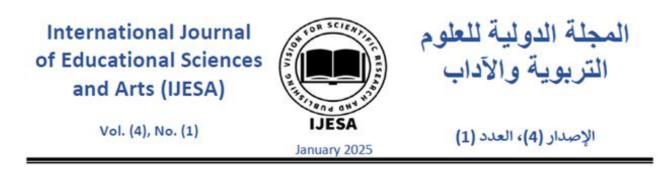
Keywords: Struggling Students, Student Failure Factors, Gaming Addiction, Grade Retention.

1. Introduction

Jeddah, the largest city in the Makkah Province, has a population of nearly four million people, making it the second-largest city in Saudi Arabia after Riyadh (General Authority of Statistics, 2019). Jeddah serves as a gateway to the Islamic holy cities of Mecca and Medina and is located on the coast of the Red Sea. With current economic growth, Jeddah aims to develop capital investments in scientific and engineering leadership, earning it a ranking in the Innovation Cities Index (2thinknow Innovation Cities- Emerging 11 Index, 2009).

On April 25, 2016, Crown Prince Mohammad Bin Salman announced Saudi Vision 2030, aimed at reducing the Kingdom's dependence on oil, diversifying the economy, and developing public service sectors such as health, education, infrastructure, recreation, and tourism (Rashad, 2016). Among the initiatives under this vision is the "Khebrat" program, designed to diversify the Saudi educational system by enabling teachers, school counselors, and administrators to travel to other countries to observe and learn from their educational systems (Alayyafi, 2018).

This research is part of a Capstone project developed during an immersion phase at a school in Orange County, Florida. The project was based on observations collected over eight years as a teacher and two years as a school counselor in middle schools in Saudi Arabia. Students are often referred to the school counselor's office due to unacceptable behaviors such as fighting, inattentiveness in class, and disrespect toward teachers. Through my experience, I observed that many of these cases were linked to students' use of electronic devices such as phones, tablets, and computers for competitive or solo gaming. These behaviors often negatively impact students' academic performance.

During the immersion phase in Orange County, I observed the widespread excessive use of technology among students, prompting a focus on this phenomenon. Discussions with parents revealed feelings of helplessness in addressing their children's excessive gaming behaviors. Based on these observations, a detailed and coordinated plan was developed to address these challenges by delivering awareness workshops grounded in relevant scientific literature. These workshops aim to raise awareness about video game addiction and address associated symptoms such as depression, social isolation, health issues, and strained support networks involving parents and teachers (American Psychiatric Association, 2013; Torres-Rodriguez et al., 2017).
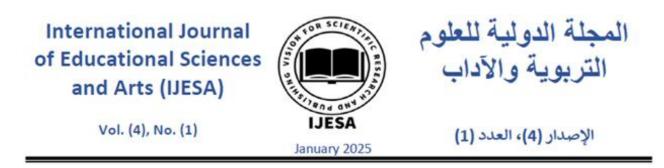
This research aims to present an innovative and unique idea that aligns with the goals of Vision 2030 by developing strategies to support Saudi students in overcoming technology-related challenges and achieving academic and personal success.

2. Literature Review

Saudi Arabia has been actively working towards achieving its Vision 2030, which emphasizes reducing dependency on oil revenues and fostering a diversified economy (Nurunnabi, 2017). The Ministry of Education (MoE) has initiated several reforms aimed at enhancing student engagement, improving teaching methodologies, and aligning educational outcomes with labor market requirements (Fallatah, 2016). However, despite these efforts, significant gaps persist, particularly in addressing behavioral challenges among students. These challenges call for a deeper investigation into the systemic factors contributing to these issues and the potential interventions that could address them effectively.

One area of significant concern is the increasing prevalence of behavioral issues linked to technology use among students. Studies have consistently revealed the detrimental effects of excessive use of smartphones and other digital devices, which
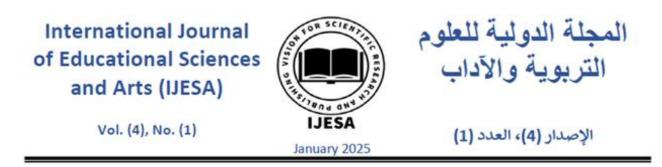
contribute to problems such as decreased concentration, social withdrawal, and academic underperformance. For example, a comprehensive survey conducted in Saudi Arabia found that 59% of children who frequently use smartphones or tablets exhibited reduced interest in non-digital activities, while 10% struggled significantly to focus on their academic responsibilities due to excessive gaming (Alosaimi et al., 2016). Such findings highlight the pressing need for educational systems to address the growing influence of digital engagement on student behavior and learning outcomes.

Gaming addiction, formally recognized as Internet Gaming Disorder (IGD) in the DSM-5, exemplifies the severity of these concerns. IGD is characterized by symptoms such as preoccupation with gaming, withdrawal symptoms, and impaired functionality in social, educational, or professional domains (American Psychiatric Association, 2013). Empirical studies from diverse international contexts, including the United States and East Asia, indicate that addiction prevalence rates range from 3% to 10%, reflecting its global relevance (Saquib et al., 2017). The implications of these findings extend beyond individual students, impacting familial relationships, school environments, and broader societal dynamics. Such widespread consequences necessitate comprehensive strategies that consider both the behavioral and psychological dimensions of gaming addiction.

Within Saudi schools, the adoption of standardized disciplinary measures, such as comprehensive student handbooks and strict enforcement policies, has proven effective in mitigating certain classroom disruptions. However, these measures have not adequately addressed deeper behavioral issues, such as gaming addiction (Almadara, 2019). For instance, while rule enforcement may reduce visible distractions in the classroom, it fails to tackle the root causes of excessive gaming behaviors, which often include emotional distress, social isolation, or a lack of alternative recreational activities. This underscores the critical need for

multidimensional interventions that incorporate technology responsibly and foster healthier behavioral patterns among students.
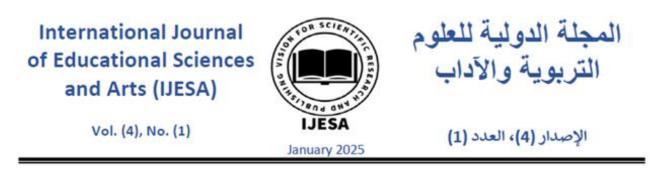
Programs such as Participatory Learning School and Family-Based Interventions have demonstrated significant success in addressing gaming addiction. For instance, studies conducted in Thailand revealed that such interventions effectively reduced gaming addiction rates among elementary school students, particularly when parents and educators collaborated in the process (Apisitwasana et al., 2018). These programs provide valuable insights for designing culturally relevant interventions tailored to the Saudi context, where family involvement plays a central role in educational and behavioral outcomes.

Further amplifying the urgency of intervention, the Arab Teens Lifestyle Study highlighted the widespread prevalence of excessive screen time among adolescents in the Gulf region. This study found that 84% of male and 91% of female teenagers in Saudi Arabia exceeded recommended screen time limits, a trend that exacerbates behavioral and health challenges (Al-Hazzaa et al., 2014). Excessive screen time has been linked to reduced physical activity, increased rates of obesity, and the development of sedentary lifestyles, all of which contribute to broader public health concerns. These findings emphasize the necessity of implementing targeted, evidence-based strategies to address both the behavioral and educational repercussions of digital overuse.

Additionally, gaming addiction has far-reaching implications for cognitive and emotional development. Prolonged gaming has been associated with impaired executive functioning, including reduced decision-making and problem-solving abilities. Furthermore, individuals experiencing gaming addiction often report heightened levels of anxiety and depression, coupled with difficulties in establishing meaningful social connections. These multifaceted consequences highlight the need for holistic approaches that address both the immediate behavioral symptoms and the

underlying psychological factors contributing to gaming addiction. Cognitive-behavioral therapy (CBT) frameworks, combined with structured family involvement, offer promising avenues for intervention.

This research builds on existing studies and aims to propose a comprehensive framework for addressing gaming addiction through workshops and awareness campaigns. By emphasizing evidence-based strategies, such as cognitive-behavioral approaches, collaborative family engagement, and culturally sensitive practices, this initiative seeks to align with Vision 2030's broader objectives of fostering a resilient and academically capable youth population. The proposed interventions not only aim to mitigate the immediate challenges posed by gaming addiction but also strive to create a sustainable educational environment that promotes long-term student success and well-being. The purpose of this Capstone project is to work with the existing evolution of school counseling procedures and streamline the process with more consistent, standardized pathways to ensure student success. Therefore, a special focus and proposed action is indicated for one aspect of aberrant behavior in school students; Obsessive gaming and gaming addiction.

3. Methods

As part of the Khebrat process, this was gained through research and observations made while in an immersion phase within an Orange county, Florida grade school. One noted observation which began before coming to the United States was the propensity of students presenting to the school counselor due to obsessive technology use during school. This prompted the observation of the prevalence of other students using their electronic devices as competition with each other on-line or solo use of gaming programs. The children where noted to discuss their use to excessive degrees at home as the literature suggests. Discussion with parents who were consulted due to their own child or simply observing others suggested a sense of futility and hopelessness at the prospect of changing the excessive gaming behaviors.

Some studies have noted the challenge of Internet Addition, specifically gaming among school age children and offered a guideline to treatment (eg. Torres-Rodriguez, et. al., 2017) or reviewed a treatment such as Participatory Learning School and Family- Based Interventions for Preventing Game Addiction (Apisitwasana, et. al., 2018). The latter has shown significant efficacy up to 3 months with 4th and 5th graders in Thailand.

For the current Capstone project, a much-needed workshop will be presented with the facts presented herein and a discussion of the effective treatments will be discussed primarily from Appendix A. Treatments for process addictions are discussed in the Appendix B workshop, each having shown some measure of efficacy and will be briefly discussed as a reference for any workshop attendee wishing to go further than what the awareness from the workshop offers (see Appendix B).

Also, similarly as part of the Methodology of this Capstone paper and project, a 5-slide presentation has been designed highlighting personal information about the Capstone developer and presenter as well as the development and purpose of the Capstone project. At the core of a Capstone paper and project is the "uniqueness" or how original the idea is as well as the usefulness of the purpose of the project. The information is being offered through a 15 minute zoom media presentation to 4 other KSA school counselors who will be completing a 6 item mixed method (4 quantitative, 1-5 Likert scale questions, and 2 qualitative questions) survey (See Appendix A) looking at raw data, statistical means, as well as useful qualitative information and word patterns.

4. Results

As stated in the Methodology section of this paper, at the core of a Capstone paper and project is it's "uniqueness" or how original the idea is as well as the usefulness of the purpose of the project. With this, the project idea is tested by being offered

through a 15 minute zoom media presentation to 4 other KSA school counselors who will be completing a 6 item mixed method (4 quantitative, 1-5 Likert scale questions, and 2 qualitative questions) survey (See Appendix A) looking at raw data, statistical means (averages), as well as useful qualitative information and word patterns.
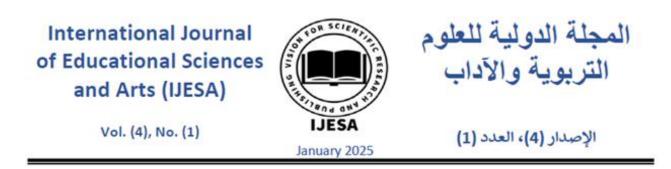
The goal of the survey is not to "test" the idea but elicit as much useful insights from fellow school counselors from KSA prior to offering the finished project to others in the Kingdom. From the zoom presentation the results for the quantitative questions using the scale of 1 to 5, where 5 is very much and 1 is not at all, the ratings were averaged from the 4 other school counseling participants' feedback:

1. How unique or original is this information for KSA, 1-5? 4 average.
2. How open to this information do you think relevant people will be to this information, 1-5? 5 average.
3. How well do you see the KSA Ministry of Education accepting this proposal, 1-5? 5 average.
4. How useful do you see the Capstone being proposed to your area in KSA, 1-5? 5 average.

Qualitative Questions

Write a brief answer that you see helpful to the success of this project:

1. How may this be more accepted by people in KSA? Very needed. Children manage time. Use internet gaming that promotes learning and opening up in counseling. Workshop and trainings needed.
2. How may this be more accepted by the Ministry of Education? Convince because it is a growing problem in KSA.

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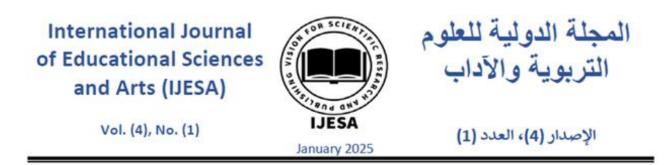
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5. Conclusions

April 25, 2016, Crown Prince Mohammad Bin Salman introduced his Saudi Vision 2030 to the Kingdom of Saudi Arabia (KSA) as a means to address and decrease the country's dependency on oil production (Rashad, 2016). From this goal came the program, Khebrat, which was designed with a specific aim to diversify the Saudi Arabian school system by allowing teachers, school counselors, and school administrators travel to other countries to observe and learn from an immersion program within those school systems (Alayyafi, 2018).

As part of the Khebrat process, each Saudi member must first undergo intensive language studies in their placement countries. This is a vital step in successfully formulating a Capstone paper which describes the implementation of a project meant to compliment Vison 2030 (Alayyafi, 2018). Upon successfully learning English, next the goal was to gain ideas which would be translated into Arabic for implementation into the Saudi Arabia's school systems. The goal being to add to the existing transformations being made and improving student engagement and overall scholastic success.
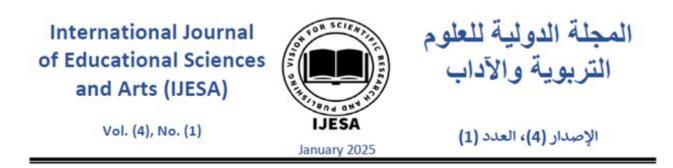
This Capstone idea came from observations made while in the Khebrat immersion phase in an Orange county, Florida school. The goal of this Capstone is to improve awareness to internet gaming via workshops and discuss the literature which indicates a wide array of symptomatic expression such as depression, social isolation and awkwardness, physical problems such as eye strain and carpal tunnel syndrome, and broken important support networks such as parents and teachers. This has a devasting impact on development and scholastic growth. This idea is in line with the Vision 2030 concept, which focuses on promoting the scientific and professional aspects of the craft of school counseling.

At the core of a Capstone paper and project is how unique or original the idea is as well as the usefulness of the purpose of the project. These aspects of this project idea was investigated through a 15 minute zoom media presentation to 4 other KSA school counselors who completed a 6 item mixed method (4 quantitative, 1-5 Likert scale questions, and 2 qualitative questions) survey (See Appendix A) looking at raw data, statistical means (averages), as well as useful qualitative information.

The goal of the survey was to elicit as much useful insights from fellow school counselors from KSA prior to offering the finished project to others in the Kingdom. The results of that zoom presentation indicated that; 1) the raters felt the idea was very unique or original. 2) The information was relevant to the citizens of KSA. 3) The proposal could be easily accepted by the KSA Ministry of Education. 4) The proposed idea would be useful in each rater's area of KSA. Furthermore, the qualitative questions gathered some useful information such as; 5) how may this be more accepted by people in KSA? The idea is very needed. Families are challenging sometimes. Opens family to different ways to do counseling. Opens student up in counseling. Workshop and trainings needed. Helps to inform that children managing time is key. Use internet gaming that promotes learning and opening up in counseling. 6) How may this be more accepted by the Ministry of Education? They will need convincing because it is a growing problem that is not specifically addressed in KSA policy. It is relatively low cost as well.

From these points, we can clearly see that counselors have a big role in the education process, especially concerning student mental health, education statues, and problem solving. When the counselors are well educated and well prepared, students find themselves in safer, more competent hands. Getting others involved in the process helps to offered people a sense of pride and involvement and may ease the workload of the existing staff.

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Appendix A

2020 Capstone Result Data Survey

Quantitative Questions

On a scale of 1 to 5, where 5 is very much and 1 is not at all, rate the following:

1. How unique or original is this information for KSA, 1-5?

2. How open to this information do you think relevant people will be to this information, 1-5?

3. How well do you see the KSA Ministry of Education accepting this proposal, 1-5?

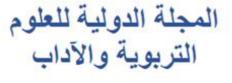4. How useful do you see the Capstone being proposed to your area in KSA, 1-5?

Qualitative Questions

Write a brief answer that you see helpful to the success of this project:

1. How may this be more accepted by people in KSA?
2. How may this be more accepted by the Ministry of Education?

Appendix B

Video game addiction

An evidence-based guide:

https://www.parentingscience.com/video-game-addiction.html

Some kids spend long hours playing video games. Do they suffer from video game addiction?

Not necessarily. Kids might play video games with disturbingly violent themes. They might spend too much time on the couch, becoming more sedentary and socially reclusive.

Kids might sometimes neglect their chores or homework, and they might fail to develop the ability to entertain themselves. — ADVERTISEMENT But such problems don't mean that a child suffers from an addiction.

What's an addiction?

Originally, the term referred to a physiological dependence on a drug. Nowadays, people use "addiction" to describe all sorts of excessive behavior, like eating too much chocolate.

But while researchers avoid this usage, they recognize that some pastimes, like gambling, can become pathological and resemble true addiction.

And some kids who play video games meet the clinical criteria for an "addiction" in this sense.

Video games dominate their lives. Playing gives them a sense of euphoria, or at least a sense of relief from unpleasant feelings. Kids experience "withdrawal" if they are denied access to games. And gaming interferes with everyday life, including school and social relationships.

So pathological gaming is about more than how much time your child spends playing game. It's about video games taking over his or her life.

How many kids are in this fix? To get an idea, let's consider this screening tool developed by Douglas Gentile.

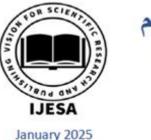The Video Game Addiction Questionnaire

Gentile surveyed a random sample of 1178 American youth (aged 8 to 18), asking kids to answer each of the questions below with either a "Yes," "No," or "Sometimes."

Kids were considered to be pathological gamers if they responded with a "Yes" or "Sometimes" to at least 6 of these 11 questions:

1. Over time, have you been spending much more time thinking about playing video games, learning about video-game playing, or planning the next opportunity to play?

2. Do you need to spend more and more time and/or money on video games in order to feel the same amount of excitement?

3. Have you tried to play video games less often or for shorter periods of time, but are unsuccessful?

4. Do you become restless or irritable when attempting to cut down or stop playing video games?

5. Have you played video games as a way of escaping from problems or bad feelings?

6. Have you ever lied to family or friends about how much time you play video games?

7. Have you ever stolen a video game from a store or a friend, or have you ever stolen money to buy a video game?

8. Do you sometimes skip household chores in order to spend more time playing video games?

9. Do you sometimes skip doing homework in order to spend more time playing video games?

10. Have you ever done poorly on a school assignment or test because you spent too much time playing video games?

11. Have you ever needed friends or family to give you extra money because you spent too much money on video game equipment, software, or game/Internet fees?

When lumped together "Yes" and "Sometimes" responses, about 20% of the sample met the criteria for a video game addiction.

When only "Yes" responses, about 8% of the kids qualified as pathological gamers.

Either way, that's a lot of addiction, and the problem seemed to affect kids across a wide range of background. Pathological video game use was unrelated to cultural variables, like race or the type of school attended.

Moreover, pathological gaming has been reported all around the world.

In the U.S. and Australia, the estimate is around 10%.

In Spain, the rate of game addiction has been estimated at around 10%. Video game addiction is also a major concern for some researchers in East Asia. And in Singapore and China, the prevalence of pathological gaming may be around 8-9.

But despite their varied backgrounds, game addicts have certain things in common. Pathological gamers spent about twice as much time playing games (24 hours per week). They are more likely to have game systems in their bedrooms. And also report more trouble paying attention in school poorer grades, and more health problems.

Researchers found that children in Singapore who met clinical criteria for a video game addiction performed worse at school. Interestingly, this study found no correlation between time spent playing games and school performance.

It Was the Symptoms That Indicated Obsession or Addiction That Predicted Poor Schoolwork, Not Playing.

What does it All Mean?

As noted above, you don't have to suffer from a video game addiction to have a problem. So, what's important about identifying pathological game habits?

Scientific research on the subject is scarce at this point, but clinicians advise that pathological gaming should be taken more seriously. It isn't "just a phase" that will get better on its own. Your child might benefit from the same treatment therapies that work for pathological gamblers or substance abusers--therapies like cognitive behavioral counseling, peer support groups, and "12 step" programs (which seem helpful insofar as they motivate kids to stay on track).

There are now specific treatments being developed to address the challenge of Obsessive or addictive gaming in school children, eg.

Participatory Learning School and Family- Based Interventions for Preventing Game Addiction which has shown significant efficacy up to 3 months with 4th and 5th graders in Thailand.

Some Thoughts about Flow:

It also seems wise to be vigilant about gaming experiences that might overwhelm a child's sense of self-control. People can become completely immersed in video games, losing awareness of the passage of time, of their real lives outside the game.

Psychologists call this experience flow, and it's not a unique characteristic of video games. Plenty of other activities—including highly productive ones, like sculpting or composing music—can also create a sense of flow.

But some video games seem to have a peculiarly powerful effect, and I wonder how realistic it is to expect kids to keep their gaming habits in check.

Do the Studies Overestimate Rates of Video Game Addiction? Let's Assume They Do. We're Still Left With Evidence That Some Kids—By Their Own Admission—are Letting Video Games Displace Other Aspects of Their Lives.

In addition to monitoring our children's habits—and setting limits— we might also think seriously about ways to cope with the allure of video game flow.
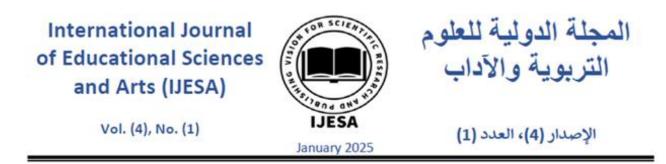
Some studies suggest that the most "addictive" video games are the fantasy role-playing games, especially for kids who are shy or unpopular. So perhaps concerned parents should try to steer susceptible kids away from such games, and towards less overwhelming options, like electronic board games, puzzles, sports games, or simulation games.

And maybe parents can offer kids other, more productive or developmentally stimulating ways to enjoy a sense of flow. Kids can lose themselves in the exploration of local wildlife or the construction of a model bridge. But do they?

It's interesting to consider that while video games have become more popular, other opportunities for unstructured play have been shrinking. I'm not suggesting that video games are responsible. But perhaps the availability of video games has facilitated a major change in our lifestyles.

Kids used to spend most of their free time outdoors, playing without the direct supervision of adults. Today, this is considered too dangerous, and for children who live in high-crime neighborhoods, the danger may be real. In a study of American fourth graders, researchers found that gaming addiction rates were higher among kids who perceived their environments as less safe.

Are video games taking up the slack? Perhaps electronic games would exert less power over our kids if kids had more to do.