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Exploring the Potential of Utilizing Esports in the Development of Workforce Communication and Collaboration Skills

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Abstract. This study explores the potential of esports in workforce development, specifically for enhancing the communication and collaboration skills of Generation Z. As Generation Z enters the job market, a gap in necessary communication and collaboration skills has become evident. Esports, previously studied for its social skill development benefits (Nielson & Hanghoj, 2019), offers a unique platform for skill enhancement. Adopting a social constructivist framework (Shabani et al., 2010), this research investigates how esports participation can bridge this skill gap, which is crucial for career retention and progression. Through a mixed-method approach involving surveys and player evaluations, the study aims to assess skill changes over two months and explore demographic influences on these skills. Anticipated results include improved communication and collaboration among esports participants, with potential implications for educational and employment strategies targeting Generation Z. This research contributes to understanding innovative ways to prepare Generation Z for the workforce, highlighting esports as a valuable tool for skill development.

Keywords: Esports, collaboration, college students, communication, workforce

Introduction

Generation Z college graduates and today's workforce managers are as compatible as oil and water. Gen Z, the "location-aware" generation, is now entering the workforce with perspectives and aspirations different from those of previous generations (Aggarwal et al., 2022). Esports research is not new as some of the earliest studies being conducted as early as 2009 with Generation X (Nielson and Hanghoj, 2019). In Nielson and Hanghoj's (2019) study, "Esports Skills are People Skills," nine interviews were conducted with members from after-school esports clubs that identified four themes including communication, healthy game culture, language, and development and growth. The research suggested that players benefited more from developing communication skills in a social context while gaming and that these skills were transferable to other aspects of the players' lives beyond esports.

Problem

Generation Z employees need to gain some of the necessary communication and collaboration skills that the workforce demands for them to be retained and progress in their careers. A report conducted by salary.com interviewed 425 survey participants highlighting the top 5 in-demand skills organizations seek from candidates include effective communication (65%), problem-solving (55%), critical thinking (47%), attention to detail (43%), and analytical thinking (41%). Other research suggests that these are the skills that are often lacking in those entering the workforce after postsecondary education. Additionally, a considerable amount of literature highlights that Generation Z, Millennials, and Generation Alpha spend significant amounts of time on video games, which has often been viewed as a detriment. In traditional college sports, athletes often spend hundreds of hours training and preparing. While there is a substantial body of literature on how traditional college sports develop skills beneficial for future careers, the same level of investigation has yet to be applied to the new world of esports.

Literature Review and Explore Theoretical Frameworks

The comprehensive literature review in the full paper will explore the challenges and significance of effective professional development, mainly focusing on college esports athletes and workforce development. Meanwhile, this preliminary draft provides an outline of the essential theoretical models. Precisely, Situational Learning, Group Dynamic and Team Learning, and Zone of Proximal Development (Lev Vygotsky) aim to explore the foundations of situational learning. The concluding section of the review will discuss the potential applications of Esports in developing or enhancing communication and collaboration skills to meet the demands of the workforce.

Situational Learning Theory

According to Jean Lave and Etienne Wenger's situational learning theory, the core of the theoretical approach is learning through real-life situations. Learning is primarily characterized by what Lave and Wenger call legitimate peripheral participation when seen as an activity embedded in a specific context (Lave & Wenger, 1991). This concept emphasizes that learners naturally become involved in communities of experts, and gaining expertise necessitates that newcomers progress toward complete engagement in a group's cultural and social practices (Lave & Wenger, 1991). Team esports competitions rely heavily on community, effective communication, and collaboration among athletes and coaches. The communication and collaboration skills of athletes rely upon the athlete learning how to be most effective in their communication process.

Group Dynamic and Team Learning

Bruce Tuckman developed the Tuckman model in 1970, and was later revised by Tuckman and Conover in 1977 (Bonebright, 2010). Esports often requires players to rely upon one another and to function as one unit that works together to achieve a common goal. Whether participating in Rocket League to score a goal or players participating in Counter-Strike to eliminate the other team by detonating a bomb. Group dynamics are an essential part of success in the esports arena. Esports athletes must effectively communicate with their teammates and function collaboratively as part of a team (Tang, 2018). As Tang noted, Martončík (2015) determined that esports could satisfy the need to belong by creating relationships through team membership and the need for power by giving team leaders the authority to determine a course of action (Tang, 2018).

Zone of Proximal Development

Lev Vygotsky's Zone of Proximal Development (ZPD) refers to what a learner can do on their own and what a learner can achieve. In esports, like traditional sports, applying ZPD can significantly enhance player development. Coaches and more experienced players can act as 'more knowledgeable than others' by providing structured environments, timely feedback, and support to help players move through their ZPD. This involves identifying problems rather than solving them for the player, offering ideas for thinking and acting in-game scenarios. Players are also encouraging other players to take ownership of their learning processes. Through this collaborative learning relationship, players can develop metacognitive skills. Internally, the athlete becomes aware of and takes responsibility for their practice and thinking strategies even with guidance and encouragement from a skilled partner (Kozulin, 2003).

Purpose of Study

The purpose of this study is twofold. The study investigates how participation in esports can enhance communication and collaboration among college students. The primary research questions are:

- How do esports varsity and junior varsity players' communication and collaboration skills change over two months?
- Is there a significant relationship between demographic variables (age, race, gender, employment) and communication/collaboration skills?

Methods

This research will implement a mixed methods approach including quantitative and qualitative data (Cresswell, 2003). The data source for this research will be try-out player evaluations that are collected on rubrics assessing the communication and collaboration skills of the potential players. An additional survey will be administered to players to assess their communication and collaboration skills in relation to the esports environment. The survey will include open-ended questions. The evaluation data will be collected from the esports tryouts, and the player's communication skills will be evaluated on communication and collaboration rubrics and scored. After two months, the player's communication and collaboration skills will be retested and recorded on the same rubric to determine whether these skills have been improved.

The participants for this study will all be at one college that has three levels of competitiveness: varsity, junior varsity, and club, with over 200 players participating in the program. The participants will be provided with the results to improve communication and collaboration skills. Demographic information such as age, race, gender, and employment will also be gathered to disaggregate results.

Implementation Strategy

The project will be implemented through the following sequence of steps. 1) develop a case without the post-evaluation of a group of athletes. 2) Review the recorded tryouts and analysis to ensure consistency in the evaluation process. 3) Review the feedback and results of individual feedback. 3) Review the structured training program based on the tryout evaluation. 4) Review the mid-term evaluation and informal check-in notes one month after the initial evaluation. 5) Reevaluate group two after two months post-tryout to measure the athletes' outcomes for learning and transfer.

Data Collection and Analysis

This study will utilize a mixed-methods approach to explore the impact of esports participation on developing communication and collaboration skills among Generation Z individuals. Data collection methods included both quantitative and qualitative approaches. Surveys will be administered to participants before and after the esports intervention to quantitatively assess changes in communication and collaboration skills. Additionally, player evaluations during esports tryouts were conducted and will be reviewed using established rubrics to further assess these skills in a structured environment.

Qualitative data will be collected through the open-ended question to gain insights into their experiences and perceptions regarding in-game communication and teamwork related to workplace learning skills. Cresswell & Cresswell (2005) define qualitative methods that investigators ask open ended questions to gain perspectives of the study participants. Demographic data, including age, race, gender, and employment status, will also be collected to examine potential relationships to communication and collaboration skills and development. The analysis of the collected data will be conducted using both quantitative and qualitative techniques. For the quantitative data, statistical tests such as descriptive and inferential statistics will be employed to compare the pre-and post-intervention rubrics /survey scores, thereby assessing the significant changes in communication and collaboration skills over the study period.

For the qualitative data, thematic analysis will be employed to identify recurring themes within the interview transcripts. This method allowed for extracting meaningful patterns related to effective communication and teamwork strategies employed by the participants. The integration of findings from the quantitative and qualitative analyses provided a comprehensive overview of how participation in esports can influence the development of key workforce skills among Generation Z. The study aimed to triangulate these findings to enhance the validity and reliability of the conclusions drawn. By comparing the results with existing literature on communication, collaboration, and esports, the study contributes to a better understanding of how esports may serve as a valuable tool in preparing Generation Z for the workforce.

Anticipated Findings

Integrating findings from the quantitative and qualitative analyses is anticipated to provide a comprehensive overview of how participation in esports can influence the development of key workforce skills among Generation Z. The first research question seeks to see if esports varsity and junior varsity players' communication and collaboration skills change over two months between try-outs and participating in competitive events. It is anticipated that the participants' skills will develop and connections can be drawn between these skills and skills desired in the workplace. The second question is exploring if there is a significant relationship between demographic variables (age, race, gender, employment) and communication/collaboration skills. It is anticipated differences may exist based on other literature related to video game research; however, there was not research that examined this specifically with esports. The study aims to triangulate these findings to enhance the validity and reliability of the conclusions drawn, and will compare the results with existing literature on communication, collaboration, and esports, the study.

Summary of Findings and Discussion

This section will highlight the key findings from the study and provide insights into how they relate to the previous literature review. Additionally, in this section the researcher will interpret the findings to develop a deeper understanding of the results. This section will discuss how and why esports participation might lead to changes in communication and collaboration skills. This will connect to the theories that were used to try to understand the phenomena. The discussion will also provide meaning to the demographic variables (age, race, gender, employment) and their influence on communication and collaboration skills. Interpret the significance of these relationships and suggest possible explanations based on existing literature or theories.

Implications for Workforce Development and Community Colleges

Esports could assist institutions in bridging the gap that the workforce industry demands for effective communication and collaboration skills that have been identified as an opportunity for Gen Z success in the workplace. The transferability of the communication and collaboration skills learned from participating in esports at the college level.

Conclusion

This investigation may reveal that esports could play a significant role in developing workplace competencies among Generation Z. For example, teamwork and effective communication are employability skills that are necessary to be successful in the workplace. Through a combination of statistical analysis and personal interviews, the study could indicate that engaging in competitive gaming can lead to marked improvements in these vital skills, offering a solution to the current skill shortfall among new entrants to the job market. Additionally, examining how factors like age, gender, and ethnicity affect these developments offers deeper insights into the dynamics at play within esports environments. This research highlights the untapped potential of esports as a

strategic tool for equipping Generation Z with the skills needed to thrive in today's workforce. This suggests a need for its increased recognition and incorporation into educational and training frameworks.

References

- Aggarwal, Sadhna, P., Gupta, S., Mittal, A., & Rastogi, S. (2022). Gen Z entering the workforce: Restructuring HR policies and practices for fostering the task performance and organizational commitment. *Journal of Public Affairs*, 22(3), n/a–n/a. <https://doi.org/10.1002/pa.2535>
- Bonebright, D. A. (2010). 40 Years of storming: a Historical Review of Tuckman's Model of Small Group Development. *Human Resource Development International*, 13(1), 111–120. <https://doi.org/10.1080/13678861003589099>
- Creswell, J. (2003). Research design: Qualitative, quantitative, and mixed method approaches (2nd ed.). Thousand Oaks, CA: Sage
- Cresswell, J.W. & Cresswell, J.D (2005)
- Crist, C. (2023, July 23). *Upskilling may be the answer to hiring and engagement woes*. HR Dive. <https://www.hrdiver.com/news/upskilling-may-be-the-answer-to-hiring-and-engagement-woes/689305/>
- Kozulin, A. (2003). Vygotsky's educational theory in cultural context. Cambridge University Press, , Cop.
- Lave, J., & Wenger, E. (1991). Situated learning: Legitimate Peripheral Participation. Cambridge University Press.
- Nielson, R., & Hanghoj, T. (2019, October). (PDF) esports skills are people skills - researchgate. https://www.researchgate.net/publication/334884563_Esports_skills_are_people_skills
- Panwar, Savita, and Aman Mehta. "Fostering Leadership in Generation Z: Onus on Whom?" IUP Journal of Soft Skills 13.3 (2019): 65-70. ProQuest. Web. 14 Feb. 2024.
- Skills Pulse Report*. (2023, June). Salary.com. https://www2.salary.com/l/250572/2023-07-20/2vqg719/250572/1689883803bsKJumsz/Skills_Pulse_Survey_Report_Lisa.pdf
- Shabani, K., Khatib, M., & Ebadi, S. (2010). Vygotsky's Zone of Proximal Development: Instructional Implications and Teachers' Professional Development. *English Language Teaching*, 3(4), 237–248. <https://files.eric.ed.gov/fulltext/EJ1081990.pdf>
- Smith, Benton Alexander. "Teaching Soft Skills to Generation Z." The Idaho Business Review (2016)ProQuest. Web. 14 Feb. 2024.
- Tang, W. (2018, July 26). Understanding Esports from the Perspective of Team Dynamics. The Sport Journal. <https://thesportjournal.org/article/understanding-esports-from-the-perspective-of-team-dynamics/>