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## The Impact of Virtual Immersion in the E-Learning Environment

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**The Impact of Virtual Immersion in the E-Learning Environment**

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**Abstract:** Students in post-graduate programs can enhance their learning efficacy and positively impact their interprofessional collaboration skills by participating in a virtual immersion experience within their e-learning course. Students from various healthcare disciplines who participated in a virtual immersion were charged with the task to create a strategic plan for a healthcare organization. Upon completion of the course, they believed the interprofessional collaborative discussions and group dynamics utilized during the virtual immersion enabled them to communicate more effectively in their workplace, thus, improving patient outcomes. The focus of this presentation is to share the impact a virtual immersion has on the student experience and patient outcomes.

## **Introduction**

As we strive to improve health care efficiency and cost, measuring patient experience and patient outcomes have become essential matrixes (Leslie et al., 2018). While healthcare organizations are experiencing continuous dynamic and chaotic changes, health education programs are challenged with arming students with the skills and knowledge to drive change. Among these skills, effective communication and collaboration are found to enhance the patient experience, improve the cost of care, and decrease medical errors (King et al., 2017). This presentation will explore the effects of a virtual immersion during an e-learning course at a unique university and demonstrate the value of the experience.

## **The Immersion Experience**

Within an e-learning course, students were provided the option of participating in a virtual immersion experience to create a strategic plan for a healthcare organization. The strategic planning process involved developing mission and vision statements, guiding principles, a strength, weakness, opportunity, and threat (SWOT) analysis, and a short and long-term strategic plan depicted with a balanced scorecard. The students worked collaboratively to complete assignments over a three-day weekend in lieu of asynchronous student scheduled meetings in the traditional format of the course. At the end of the virtual immersion students presented their plan to

healthcare leaders that serve as the organization's board of directors. The presentation was followed by a period of questions and answers.

As most of the postgraduate students work full-time, this option complimented their schedules. The virtual immersion experience was completed from home while working with interprofessional classmates. Each group worked within a platform using online video chat and live document editing. This course design provided the opportunity for students to finish assignments early, avoiding the need to travel to the traditional brick and mortar campus, and promoted working collaboratively with classmates.

## **Student Experience**

The virtual immersion was intentionally structured to provide a flexible time-efficient and cost-effective opportunity that allowed for face-to-face engagement with other students, instructors, and experts. Having the instructor available during the virtual immersion to answer questions ensured team competency and supported individual participation in the team setting. Clear expectations and timelines allowed students to focus on the assignment and work efficiently.

During the virtual immersion, experts presented in an intimate group video setting. This provided an opportunity for students to speak with the presenters and ask questions. Students felt that they received more attention from the presenters as they dialogued and exchanged thoughts freely within the group. It was recognized that this opportunity may not have been possible if the experts would have had to travel to a campus location to present.

The students found that the virtual immersion provided a supportive environment where they encouraged each other as they each contributed various interprofessional experiences towards a common mission. The live interactive video platform helped students feel connected with each other. A sense of comradery facilitated networking, holding each other accountable for individual contributions to the final project, and development of relationships and trust. The accountability and trust led to early buy-in, individual ownership of the tasks, and created a spirit of team responsibility. The virtual immersion provided students with a framework and process to enhance collaboration with both their peers and their instructor. Additionally, throughout the three-day immersion, students found both positive outcomes and challenges related to completing the assignments. Positive learning experiences included bonding with one another and learning each team member's interests and personality, as well as professional skill set and role in healthcare. This teambuilding helped students develop a cohesive group paper and presentation.

At the beginning of the experience, the students felt that using a technological platform that involved real-time video chat and live-document editing was intimidating. Within each group, there were varying degrees of skill and experience with virtual communication. However, by the end of the immersion, the students noted that the opportunity to collaborate virtually and interprofessionally provided a more efficient way of communicating. It was found that virtual collaboration increased accessibility and efficacy. The exposure to new technological platforms enhanced the group's dialog, was cost-effective, and provided better access to learning.

## **A Comparison**

Many of those who participated in the virtual immersion had also previously participated in standard immersion experiences hosted on the university campus. In both venues, students were able to meet fellow students from similar and different programs. Many lasting relationships and bonds were created. Students engaged with one another throughout the experiences with the mutual goal of completing individual and group work. The students recognized the virtual immersion experience was rewarding and increased their understanding of peer role responsibilities and professional scopes of practice. While asynchronous dialogue does allow for this information exchange, students noted that face-to-face interaction leads to a more robust conversation.

The students found that the virtual immersion and use of video conferencing created a very similar environment to traditional on-campus immersion. Students found the virtual immersion experience decreased the financial burden and commitment associated with travel and lodging for a traditional on-campus immersion. Student participation and learning that occurred virtually was no different than a traditional on-campus immersion. Both immersions provided a chance to have real-time connections with faculty, students, and presenters.

## **E-Learning and Patient Outcomes**

The virtual immersion experience impacted the students' communication skills outside of the classroom. It is recognized that there are communication gaps in organization and system processes and between physicians, hospitals, and those providing direct patient care in healthcare systems. In order to improve patient outcomes and increase financial performance in value-based healthcare, communication and collaboration are key to ensuring patients receive the highest level of coordinated care (King et al., 2017). Traditional barriers between roles are diminished when students gained trust and respect for a truly interprofessional collaborative process. Students developed an arsenal of new resources to engage with important team members who cannot be physically present. Patients benefit from these improvements in practice through cohesion and increased communication amongst their collaborative healthcare team. King et al. (2017) noted that interactions between professionals are not just a matter of exchanging the information needed to get the job done; rather, it is about developing and maintaining relationships that will enable the professionals to work together over the long-term.

Students acknowledged personal and professional change following the immersion experience. Specifically, the students found that the relationships built with interprofessional colleagues during the virtual immersion led to them seeking similar relationships in the workplace. They found that the relationships built with peers in the virtual classroom felt natural. In reflection, students identified that relationships and interactions in their work setting missed true collaborative components. The virtual immersion experience forced each member out of their comfortable independent practices of studying and producing work and propelled them into functional relationships with other professionals all seeking a similar goal. Each student identified being personally accountable for engaging in robust dialogue; however, until a supportive environment was created, students did not recognize the options and outcomes that were achievable. The lessons learned through this immersion experience parallel the importance of interprofessional collaboration in the current healthcare environment.

Students recognized the busy healthcare environment as a barrier associated with sustaining a culture of collaboration in the workplace. Although discussing and planning care of patients may be viewed as simple, logistically, gathering the entire interdisciplinary team at one date, time, and location is challenging. Students recognized the utilization of the new technological tools acquired during the virtual immersion allow team members to collaborate efficiently within a healthcare system and provide direct patient care more efficiently. Ultimately, the relationship between communication and collaboration leads to improved patient experience and outcomes driving reimbursement and stabilizing the economic environment of an organization (Institute of Medicine Committee on Measuring the Impact of Interprofessional Education on Collaborative and Patient Outcomes, 2015) (1)

Figure 1  
Virtual Immersion Impacts Outcomes

Students learned that developing a trusting relationship within healthcare organizations ignites the journey to interdisciplinary communication and better patient outcomes. Breaking down barriers and misconceptions is part of the change process that can lead to change improvement, increased care quality, and increased patient satisfaction. Students recognized that creating a culture of change can be intimidating; however, students who participated in the virtual immersion felt more comfortable interacting with and making recommendations to organizational leadership.

After the virtual immersion, students discussed the importance of recognizing opportunities in the workplace to implement innovative technology. Recognizing the gaps and barriers to communication was necessary to implementing change within a dynamic healthcare system. Implementing innovative avenues for communication is essential; however, recognizing where this technology can be implemented is an important step towards successful interprofessional collaboration.

## **Next Steps**

Following the virtual immersion experience, each student returned to the workplace with a new way of thinking and working. As the students began to practice their newly acquired skills in the workplace, they utilized collaborative communication to develop relationships and partnerships with interdisciplinary members of their healthcare organizations. Although students still believed creating a culture of change can be intimidating, students began implementing concepts learned at the virtual immersions directly into the workplace to influence change.

The virtual immersion experience provided exposure to collaborative technology-based tools that facilitated communication, relationship building, and trust when the student returned to the workplace. Students noted that when their recommendations were trusted by organizational leadership, change processes began to occur. It became evident to students that it is not only a change in culture that is needed to produce better patient outcomes but also buy-in from healthcare organization leadership. Efficient modes of communication are recognized and accepted by healthcare professionals who find time as a barrier to providing the highest quality of care. As healthcare systems continue to recognize how virtual immersion platforms and interprofessional collaboration can lead to better patient outcomes and decreased financial burden, a culture of change will be more accepted in the rapidly changing healthcare environment.

## **Conclusion**

There are many challenges providers and patients face within our nation's healthcare system. Each healthcare organization faces unique opportunities as they work to provide effective, efficient, patient-focused care. It takes a variety of healthcare disciplines to meet the needs of a very diverse patient population. A team-oriented culture is associated with improved quality of care, shorter lengths of stay, and improved patient-provider relationships (Weller, 2014). This, in turn, impacts the cost of care provided and received. The virtual immersion experience provided students a solid foundation to grow into dynamic healthcare providers who can effectively communicate, develop collegial trust, engage in interprofessional collaboration, and provide efficient, high-quality care to patients. It was through this unique educational offering that students explored ways to address barriers to interprofessional collaboration and began to develop solutions in their current workplaces. The virtual immersion is an affordable means to complete interprofessional group course work while challenging the student to develop solutions to real problems they face within an ever-changing healthcare system. As healthcare professionals and lifelong learners seeking to improve health outcomes, participation in learning opportunities that challenge current ways of thinking and drive collaboration and communication is essential to our future success as leaders.

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