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Literature Review 3: Virtual Reality in Theatre Education

Kuksa (2008) investigates the potential of communication technologies in the theatre classroom, specifically the integration of virtual reality in the curriculum. The author uses empirical findings to inform her argument in favor of this integration. An analysis of the modern classroom, information and communication technologies, and learning processes support the basis for technology's role in education. Kuksa then informs the reader of how such technology has been applied in the context of theatre education as well as the future for virtual reality onstage and in the classroom.

Before analyzing the role of communication technology in theatre education, the author first stresses the significance of computers in the classroom as a general concept. The classroom environment has evolved to match modern society, with a focus on students processing and engaging with educational materials for themselves. This independent drive to learn leads to the lifelong learning culture that has been embraced by society. Interestingly, the author notes that technology in the classroom leads to reformation in the education system while also increasing the performance of both students and teachers (Valdez et al. 2000.)

The term 'Information and Communication Technologies' (ICTs) is used to refer to the modern computer systems used in everyday life and beyond. These systems, "offer numerous opportunities for monitoring the process of study and, consequently, increase motivation and improve students' attitudes towards course material, as well as their interest in gaining new knowledge," (Kuksa, 2008.) When applied in the classroom, these innovations can act as a vast resource of information (the internet,) or a simulation of reality for students. Even teachers can benefit with the advent of professional communities- virtual environments where peer educators can communicate with each other (Corcoran 1995.) These technologies allow for a more personalized education, one that adapts to the needs of the student rather than the requirements of the school system.

When discussing learning styles, Kuksa explains different elements of the learning process. Based on Bloom's Structure of Observed Learning Outcome (SOLO) taxonomy, as well as Enlund's different categories of learning, Kuksa provides the reader with a new kind of student: the reflective one. Reflective learners think critically and accomplish tasks to achieve academic progress; transferable skills that they will apply throughout their lives. This concept nods to the interdisciplinary nature of technology-enhanced learning, which in practice requires diverse formatting and various interactive and learning options.

In the context of theatre education, there are two popular applications of new media technology: user-friendly access to databases, and virtual reality as an innovation of the traditional performance space, commonly through design of lighting, costuming, sound, and stage. One successful application of virtual reality provides students with simulated historical theatre experiences- examining artifacts and structures lost to time.

Several attempts at V.R. experiences like this have been accomplished, to learn the historical evolution of European theatre, to educate with games, to simulate an environment for a play. All previous attempts have led to two revelations: there is a need for a generic platform for interactive performance and storytelling, and that there is a

lacking evaluation framework of such practices in the education system. This evaluation system will be able to measure the effectiveness of educational V.R. tools by measuring a learner's profile and environment, program content, technical aspects, and documentation.

Overall, Kuksa has a bright vision for the future of ICTs in the theatrical classroom. The convenience and accessibility of such tools allow for educational institutions to invest in programs such as theatre without requiring a physical performance space, or even without active participants in the same room. Through virtual reality, students can learn design, staging, and educational skills in a new way- one that meets their needs as an individual. With a gradual integration, students can use technology to meet their needs and the technology can develop appropriately to do so. In order for future success, there is a need "to match technological applications with the intended learning goals, have critical access to hardware that is appropriate to the study expectations and also ensure that the software design and instructional methods surrounding its use are congruent," (Valtez et al 2000.)

All of the research points to a sound argument for the implementation of ICTs in the theatre classroom. Personally, I see this as a long-term cost effective plan for expanding public theatre education. A designated theater or venue space is not always available for students; this would allow students under those circumstances to visualize and be spatially aware of the stage or creation process- by computer alone. State and federal programs can also support this development, making arts education accessible for all students. Having an educational experience customized to the student will increase motivation and success, impressing upon them a passion for lifelong learning.

Faith in research aside, there are some weaknesses in this study. Published in 2008, I'd be curious as to the current state of progress within classrooms. Virtual-videoconferencing was made popular in the education sector due to the Coronavirus pandemic (Zoom.) However, is this an acceptable method for delivering information and instruction on design and it's technical applications? How can students get a sense of space, or feel immersed in the world they create without being able to visualize it for themselves? Did the pandemic prove that there is a need for a flexible program created with the purpose of facilitating theatre education?

Kuksa also did not conduct her own experiment, however, used existing theory and rhetoric to inform her argument and development of standards. Even though there are examples of successful implementation, it would be interesting to conduct a case study and examine users experience via survey, or similar means. Quantifiable, but more importantly, *reliable* data can be used to better inform the direction of ICTS in theatre education. Data also provides valid support for advocates when lobbying for the support of arts education.

Personally, I would have appreciated a case study in order to understand the users experience better. It was noted that audience reactions must be measured in order to assess the effectiveness of V.R. in theatre education. Getting personal insights as to how children, students, teachers, creators, administrators and parents feel on such technology will allow for the software to better cater to their needs.

By implementing virtual reality when teaching theatre, educators encourage in students not only a passion for the arts, but a passion to learn. Further research into this will hopefully allow for reformation in arts education across the board.

References

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