ORIGINAL RESEARCH

Innovation and learning with VoiceThread: A pilot assessment of students and educators' perspective

Leighsa Sharoff*

Hunter College, New York, NY, United States

Received: March 11, 2022 **Accepted:** May 11, 2022 **Online Published:** May 18, 2022
DOI: 10.5430/jnep.v12n9p38 **URL:** https://doi.org/10.5430/jnep.v12n9p38

ABSTRACT

This pilot assessment explored students (n = 13) and educators' perspective of utilizing VoiceThread© as a genomic risk assessment assignment in an online asynchronous graduate nursing course. Results demonstrated that both students and educator perceived using VoiceThread© as beneficial, fostering a sense of community while enhancing students' communicative skills. Given today's pedagogical arena, there is an expectation for creative innovative teaching and learning that encourages thoughtful engagement while instilling initiative-taking interactions and participation. The implications for educators to be cognizant of the dynamics of instilling a sense of a social community and culture, while developing complex-reasoning skills, is required to continue students' educational progression.

Key Words: Innovation, VoiceThread©, Genomic risk assessment, Online asynchronous graduate nursing course

Given today's pedagogical arena, there is an expectation for creative innovative teaching that encourages thoughtful engagement, fostering a sense of community while instilling proactive interactions and participation. To continue to nurture and enhance this educational dynamic, educators need to be more inclusive in their approach to promote a community culture of learners. VoiceThread© (VT), as an educational tool, can be utilized to achieve this sense of community and social presence. The author wanted to create an innovative teaching approach to a genomic risk assessment assignment in an online asynchronous graduate genomic course and this tool provided the platform for an interactive student presentation. This paper will explore a pilot assessment of students and educators' perception of utilizing this educational tool.

1. INTRODUCTION

VoiceThread© (within the confines of this paper, will also be referred to as VT) can have numerous integrative pedagogical approaches to enhance student engagement and online presence. VoiceThread is an interactive collaborative and sharing tool allowing educators and students to develop online presentations, which can include narration, images, documents, and videos, and other media.[1] This tool is a rapidly growing cloud-based web 2.0 application social media platform, designed to transform online communication by enhancing student engagement and online presence through an instructive teaching/learning approach.[1] It offers a synergistic and inclusive experience for both educator and student, allowing for enhanced dialogue, reflection, analysis of content and opportunities to provide feedback.[2–4] VoiceThread bestows pedagogical affordances demonstrating its increased integration and utilization in a plethora of academic settings. For example, an educator can develop an orientation video for an online or face-to-face course, providing details of the course process or offering students' an opportunity to 'hear' the educators' voice (which is especially important for a fully online course). VT can supplement syllabus content allowing students to listen to it numerous times if needed for clarification

*Correspondence: Leighsa Sharoff; Email: lsharoff@hunter.cuny.edu; Address: Hunter College, New York, NY 10282, United States.

fostering initiative-taking self-direction. It is important for educators to understand and be cognizant of students' varied learning styles. VoiceThread can function as a unique teaching/learning tool for students who may learn better through oral than only written instructions. VoiceThread can facilitate communication and educational enhancement through a participatory culture, providing opportunities to share a video with a narrative, in addition to sharing comments. VT is a type of multiparty technology that can bring communities together while developing a social presence and culture.

Advantages to utilizing VoiceThread includes student development and practice of presentation and communication skills;[5,6] student engagement via social interaction leading to a sense of community and collaboration[3,7–9] and improved sense of social presence and enhanced understanding of complex ideas.[10] Contemplative experiential educational processes are essential in academe to foster students' critical thinking and self-awareness. VT can encourage meaningful dialogue and reflection.[11] This educational tool presents personalized instruction for students who may need additional support by providing opportunities for demonstrations, illustrations, expositions, and time delay for posting comments.[8,12]

However, it can be time-consuming and students' concerns with utilizing technology and recording narrations may produce anxiety, especially if narration is not in the students' first language.[13] A realistic advantage is the sharing of one's voice. This tool provides for individualisms and nuance, an espoused personalized presentation of self. Integrating this tool as a genomic risk assessment assignment in an online asynchronous graduate genomic course provided a unique opportunity to truly 'hear' each student.

There are other educational interactive sharing video tools in academe that can be used as an alternative to VoiceThread. At this researchers' facility, Blackboard™ is the learning management platform with access to other video sharing tools besides VoiceThread. For example, Camtasia™, Microsoft Office 365 for Education® has Sway®, Stream®, and Flipgrid® were available for use. In addition, there were other options that were not available at the researchers' university, such as Prezi®, Panopto™ and Canvas Studio®. The researcher chose VoiceThread based on familiarity with the tool and its ease for students to create presentations.

1.1 Purpose

The purpose of this paper will discuss a pilot assessment of graduate nursing students' perception use of VoiceThread as a genomic risk assessment assignment in an online asynchronous graduate genomic course. An online survey of six yes/no questions with space for written feedback was utilized. The educators' perception of utilizing VT will also be explored.

1.2 Literature review

Incorporation of VoiceThread can promote critical thinking, collaboration, and higher levels of learning to maximize interaction among and between group members.[3,14] A theoretical framework for VT enhanced collaborative learning was developed with the major components being shared goals (participation, communication, presence), knowledge development through social interaction (experiential experiences for self and others) and apportioned perception, reasoning, and awareness for learning in a genuine and expressive framework (collaborative learning).[3,15] The humanizing foundations of VT empowers educators and learners to "communicate emotion, personality and other nonverbal cues conductive to enhanced understanding and interpretation of meaning" (p26).[3] VT could be integrated into "group projects, peer assessments, collaborative scoring, presentations of learning, open forums for questions, and blogs" (p95).[8] Students can create videos to share their thoughts and questions pertaining to the course content, stimulating communication with their classmates and educator.[16] The author utilizes VoiceThread as an orientation video in all courses, allowing students to view the video prior to the course starting, potentially decreasing any anxiety of course expectations and process. Furthermore, it can be used for students to create a profile/self-introduction of themselves to share with classmates. This further encourages a culture of community connectiveness. Self-introductions provide, for students and educator, a basis for cultivating the learning relationships while establishing a humanizing component.[3]

Pedagogically, VoiceThread can be an extremely useful tool to assist students in a variety of educational disciplines. Recently, due to COVID-19, 55 students in a postgraduate English as a Second Language (ESL) teacher training and Teaching English to Speakers of Other Languages (TESOL) programs in Australia moved to an online or remote teaching mode with microteaching activities implemented.[4] One of the activities included using VoiceThread to create asynchronous tasks to cultivate student engagement and provide students with an active learning experience.[4] Interestingly, the aim of microteaching was to develop learner autonomy; however, the degree of autonomy and reflective practice that students had was represented at higher levels with VT use.[4] In addition, VT inclusion was noted to improve students overall learning, increase communication opportunities, and enhance learner engagement and participation.[4] Improved feedback and basic instructional technology confidence also

improved.[4] The mobile version of VoiceThread was utilized for the integrative development of oral skills in English learning in online coursework of 44 bachelor Russian students in non-linguistic departments.[17] Findings revealed that most participants enjoyed the application for language learning; the recordings became more meaningful and well thought through, preparation was more intensive and deliberate, and students' individual engagement increased the effectiveness of their learning process.[17] Another study explored 27 undergraduate student's perceptions of using VoiceThread for an online English-speaking practice course in the United Arab Emirates.[18] Findings revealed students perceived their speaking skills, articulacy, lexicon, and self-confidence improved.[18] In addition, peer learning through collaboration and autonomy through error recognition and self-modification was noted.[18]

The personalizing of a mathematics course during the COVID pandemic explored the abrupt switch to virtual instruction.[2] Educators acknowledged the need for community building that required intentionality and active participation to deliberately promote an inclusive environment.[2] VoiceThread, used for peer collaboration, was one of three different tools integrated to improve student engagement and foster a sense of belonging.[2] The other two tools were icebreakers for student engagement and Discord for community building. Students expressed that VoiceThread allowed their voices to be heard and felt more connected to their colleagues.[2] This collaborative tool enhanced learner engagement and a sense of community.[2] VoiceThread was integrated into two asynchronous online business courses enhancing active learning and student engagement improving the online community culture.[19] Students communicated with their classmates on a regular basis and were more readily open to communicate with their instructors.[19] Participants felt they "were 'proactive in their learning' and 'felt engaged' in active learning, having a sense of 'belonging' in a supportive online community supported more 'interactions' with other learners, and thus encouraged learning".[19] Another study explored eight graduate students, in an education program, and their perceptions of social presence, participation, interaction, and social knowledge construction utilizing a discussion board/text based (ODB) tool and VoiceThread.[20] Findings demonstrated that VoiceThread provided an outlet for an enhanced level of participation with a more defined social presence.[20] Fewer social knowledge construction behaviors were exhibited than with the ODB yet the process of negotiation and formation of newly constructed knowledge, such as hearing or watching colleagues' voices or postures, were exhibited.[20] In other words, VoiceThread made it easier for students to communicate with each other promoting a social constructivist mode of learning.[20]

Twenty-three students enrolled in an instructional design course in an online Educational Technology program participated in an exploratory study of VoiceThread's effectiveness to facilitate students' interactions and social engagement.[21] Participants felt that the VT presentations helped them to connect to their colleagues better and it enhanced their overall comprehension of the course content.[21] A design case exploration with students enrolled in an online graduate course on technology and informal learning environments integrated VoiceThread to support asynchronous digital documentation and interaction as well as practice independent troubleshooting, problem solving and intentional reflection.[22] Course facilitators determined that this tool permitted students to completely document a design process, have peer-to-peer idea and clarification exchanges while supporting the community of learners.[22] An entry-level chemistry course of 50 students utilized VoiceThread for student presentations.[5] Collaboration between a science and communication faculty members assisted students in appropriate communication and presentation skills.[5] This process allowed students to begin to bridge the gap between speaking the language of their discipline in a professional manner. One study explored three different modes of VoiceThread's ability to enhance students' retention within a foundational computer science course in the Colleges of Education in Nigeria.[23] The three modes consisted of VoiceThread video (n = 73), VoiceThread animation (n = 74) and a control group of VoiceThread audio (n = 63).[23] Results revealed that all three modes enhanced students' retention levels. Video and animation modes encouraged meaningful engagement interactions based on the content leading to enhanced retention.[23] These learning platforms were equally gender friendly without any obvious change in their retention scores.[23]

Finally, results from a mixed mode exploratory study of 72 undergraduate students, enrolled in an online hospitality facilities management course, revealed that student engagement with their colleagues were significantly improved with the use of VoiceThread.[24] Findings demonstrated that over half of the participants (56.5%) enjoyed being able to post their own responses and listen to their classmates. Most participants did not experience any technical difficulties while engaged in the online community.[24] Themes that emerged were an appreciation for being able to hear how they sounded prior to posting, the ease of and access to VoiceThread and 57.4% felt it was user-friendly.[24] Instructors should carefully outline the assignment and provide students with specific instructions regarding video requirements to alleviate grading disputes.[24] Educators should be available to their students to provide technical support and

guidance on VoiceThread process.

In health science disciplines, a pilot study of 59 undergraduate students' perceptions of VoiceThread use in online courses demonstrated its' positive teaching/learning pedagogy.[16] Students enrolled in an online Bachelor of Social Work program were asked to rate the helpfulness of the orientation to the course and the VT video recording of the course syllabus in understanding class expectations. Findings indicated that 68% (n = 27) felt it was very or extremely helpful and 77.5% (n = 31) viewed the course syllabus video as very or extremely helpful in understanding class expectations.[16] A study of 39 graduate students in an online education course demonstrated that most participants felt that utilizing this tool had a positive effect on their perceptions and relationships with their colleagues and instructor.[7] One study explored 17 clinical nurse leader students in a graduate course that utilized VT and their perceptions demonstrated how it fostered asynchronous communication enhancing their collaboration and sharing of knowledge.[3] An online graduate nursing education curriculum integrated VT to provide opportunities for students to discuss pertinent issues related to their field of study, discuss and present case studies, upload personal introductions to each other and practice professional speech.[25] Findings demonstrated a higher overall satisfaction with VT integration with improved student engagement and learning.[25] Finally, a study on 163 RN students in a Bachelor of Science in Nursing program (RN-BSN), enrolled in a leadership course, explored VoiceThread's promotion of a community of inquiry.[26] There was a VoiceThread intervention group (n = 97) and a control group (n = 66) that used a narrated PowerPoint for their presentation. Findings suggested VoiceThread improved student-perceived educator quality, encouraged social presence, educator presence, and promoted a community of inquiry.[26]

There have been few studies that incorporated the educators' perspective related to utilizing VoiceThread as an educational tool. One study explored ten faculty perceptions on VT usefulness, which revealed that faculty need to be comfortable with technology and can minimize the gap in text-dominant online teaching and learning formats.[27] A qualitative case study on an instructors' feedback process with 18 graduate students in two online asynchronous courses demonstrated that it promoted a two-way dialogue between the instructor and students.[28] Given that the educator provided both verbal and written feedback, which led to a very lengthy process, they would suggest that students choose the feedback modality preference.[28] Another study explored two faculty members in the Modern Languages department teaching German and Spanish who converted their face-to-face class to online, incorporating Web 2.0 technologies that exemplified open communication in foreign language learning, with one of the strategies being VoiceThread.[29] They selected VT as it expanded the idea of self-expression. Findings correlate to the concept that pedagogical web-based formats successfully and effectively contribute to an active community of learners with "a strong sense of teaching presence, social presence and cognitive presence" (p12).[29] Finally, one study explored the redesigning of courses with technology integration to augment student participation and engagement in a health professional program within the classroom and clinical settings (physical therapy and physician assistant curricula).[14] Guidance was provided to assist, train, and educate faculty to increase technological utilization. VoiceThread was integrated to promote critical thinking, collaboration, and higher levels of learning to maximize interaction among and between group members.[14] Concluding results reiterates how technology, when used appropriately, can lead to meaningful learning experiential active experiences, a sense of community and reflection of one's participation in the learning process, providing a critical component of higher order learning. Continued exploration of the educators' perspectives on VoiceThread as an educational tool is relevant as its' the educator who decides to integrate it into a course.

1.3 Using VoiceThread as a risk assessment case study assignment

VoiceThread was integrated in an online asynchronous graduate genomics course as a risk assessment case study assignment in a large diverse urban university. Because the students were not familiar with this educational tool, a tutorial on how to develop and construct a presentation with recommendations on how to write up and narrate the assignment for this course was developed. This tutorial was a PowerPoint© presentation with narration to each slide, developed via the educators' VoiceThread account (which is shared only with permission), and shared with the students in the course Blackboard© platform.

Risk assessment case study assignment

Doctor of Nursing Practice (DNP) students are required to take this online genomics course which is offered as an elective to all graduate students. The VT pilot assignment consisted of a case study, including: (a) review and assess history and physical exam data; (b) present overview of patient history; (c) discuss physical and/or developmental alterations; (d) identify red flags that indicate genetic risk; (e) identify genetic referral counseling services, further evaluation, and genetic testing; (f) discuss how to keep patient informed via risk communication and risk management and (g) pharmacogenomic intervention. The main components of this case study activity were to interview a person about his/her family

and personal medical history. This may be a patient in the student's work setting, a friend, or a family member (maintaining anonymity), review the family history and present their findings in a video presentation. A rubric grading scale was developed that included the case study criteria as well aspects for the VoiceThread video itself. Students were informed that this video presentation should be 10-15 minutes in length and professional in presentation, such as: speech, grammar, pronunciation and able to follow practitioners critical thinking process. Students were instructed to upload their presentation assignment to the educators' university's VT account.

The use of VT was expected to be beneficial as an assignment component, as it provided an opportunity for a professional case study presentation, allowing students to not only learn the aspects of conducting a genomic risk assessment but promote professional presentation skills. This tool allows for extra time and focus on preparation and practice of presentation, leading to enhanced confidence.[8]

2. METHODOLOGY

This pilot assessment was an exploration of students and educators' perception of utilizing VoiceThread as an educational tool. Once the assignment was completed and graded, the author (who was the sole educator for this course) reflected on the benefits of this pilot VoiceThread assignment.

2.1 Participants

After course grades were submitted to registrar, all students (11 DNP /2 graduate students; 12 females/1 male) were asked to respond to an emailed survey assessment consisting of six yes/no questions with space for written feedback on their perceptions of the assignment.

2.2 Survey assessment

The survey assessment asked: (1) Did you enjoy this assignment? Why/why not? (2) Did you view any of your colleagues VoiceThread presentations? And if so, were they helpful? (3) Do you feel there was an increase in your retention of the knowledge gained from this VoiceThread risk assessment assignment? Why/why not? (4) Did you experience difficulty developing and/or uploading your VoiceThread assignment? Were the issues quickly solved? (5) Did you listen to my VoiceThread resource and (6) Any additional comments and feedback.

2.3 Data analysis

Given the small participant population, with comments not provided by all participants, data analysis was difficult, and saturation could not be achieved. Comments were reviewed by an experienced nurse researcher who agreed that saturation would not be established. To maintain anonymity, students received the Institutional Review Board approved survey link through the educators' Qualtrics College Account. Qualtrics© provides security with enterprise-grade security features including data encryption, redundancy, continuous network monitoring and Single Sign On (SSO). All survey responses remained deidentified with anonymity of identifying shared perspectives.

3. FINDINGS AND DISCUSSION

The findings are in accord to the previous studies of students and educators' perspective of VoiceThread utilization. Though this assignment was on a genomic risk assessment, the pedagogical integration for VoiceThread inclusion is extensive. Data was not analyzed given the small population, yet themes that did emerge were education of others; shared process; retained knowledge; preparation important and technology can be difficult. Student and educators' satisfaction with this mode of teaching and learning is evident, especially given its ease of integration into many academes' courses. Based on survey results from this study, both students and educator perceived VoiceThread to be very beneficial to learning (see Table 1).

3.1 Students' perceptions of using VoiceThread

Ten of the thirteen students responded extremely positively that they enjoyed the assignment, stating "I enjoyed it because it was different... got to use a new program that I have never used before... fairly easy to use after watching the demonstration video... provided." The shared goals of learning through social interaction[3,15,20,26] was expressed with statements such as "It allowed us to educate each other from the perspective of a patient... was an example of a different method that we can maybe use to teach." "I really did enjoy the assignment... was my first time of using VT." Student satisfaction with this educational tool is an important aspect to integration.[7,17,24,25] Vt can be the platform for the silent student to be heard, as one participant stated it "forces one to speak publicly." There are dominate voices in most classes with several students opting to remain silent. VT provides an outlet for those quiet students.[18] Peer interactive educational tools can stimulate collaboration and facilitate a sense of community[2,30] while enhancing students' confidence, providing them with a sense of professionalism when working with others in their field. Visibility of everyone's work promotes a community culture of learning from and with each other, which is corroborated by one participant stating, "I felt like they were teaching me as well." VT can inspire students to self-reflect, prompting an analogy of self while learning from others.[4,17] Learning from each other

is essential for professional training and workplace preparation.[19] Peer to peer learning is an educational benefit, as one participant succinctly stated, "It broadened my knowledge." Partaking of ideas, values and knowledge while gleaning those of others endorses new knowledge development that can then become translational in practice.[31]

Table 1. Survey results

Survey Question	Number of Participants who Responded Yes	Participant Feedback
Did you enjoy this assignment?	n = 10	I enjoyed it because it was different, so I got to use a new program that I have never used before, and it was fairly easy to use after watching the demonstration video you provided. It allowed us to educate each other from the perspective of a patient and it was an example of a different method that we can maybe use to teach patients. I really did enjoy the assignment, though it was my first time of using VT It was relevant to the class It forces one to speak publicly Major Themes: Educate others; enjoyed using VoiceThread
Did you view any of your colleagues VT presentations? And if so, were they helpful?	n = 10	I viewed a few of my colleagues' presentations. It was interesting to see their thought process and the genetic conditions they wrote about. Yes I did. I learned how to improve my HPI from the slides and how to better organize my assessment so that when someone reads my work they can follow and visualize what I saw. I believe everyone in the class were pursuing their DNP so I felt like they were teaching me as well. Was not able to I enjoyed listening to my colleagues Major Themes: Shared process; Teaching others
Do you feel there was an increase in your retention of the knowledge gained from this VT risk assessment assignment?	n = 13	I do feel as though I retained more knowledge because I was able to go through and plan then record and re-record my voice thread if necessary, so I really have an in-depth understanding of the information. Yes, there was visualization that embedded new information and the format of the presentations were attention grabbing. The voice overs were not dragging which indicated that many applied themselves to provide a good report. Yes had to work hard to prepare to avoid embarrassing self if being publicly viewed among colleagues Major Themes: Retained knowledge; preparation important
Did you experience difficulty developing and/or uploading your VT assignment? Were the issues quickly solved	n = 10 no difficulty n = 2 commented they experienced difficulty	No issues Yes, I did. It was a bit hard for me because I wanted to be as close to perfect as possible, not dragging or repetitive. It was also difficult because I am not so advanced with technology so after completing the power points and uploading them, I found that a lot of the effects that was applied to the power points were not functioning decreasing the visual effect that I had planned for my presentation. It was difficult at first but I later figured it out No difficulty. Yes had to email the file requires technical knowledge No trouble Major Theme: Technology can be difficult
Did you listen to my VoiceThread resource	n = 13	Extremely helpful Decreased some of my anxiety about the assignment Found it very helpful Major Theme: Helpful
Any additional comments/feedback	n = 7	I would continue with the assignment because it lets people know that in their career as an APN, there are many ways to educate a patient. Only thing is that maybe you can use the link that was given by one of the students on how to edit a VT assignment, other than that I really enjoyed it. I like the VT, it broadened my knowledge. Ty professor for coming up with these innovative methods of learning. I like the VT Assignment. Major Theme: Continue with assignment

Notes. N = 13 (tally may not equal 13 as not all participants responded to all questions)

The majority (n = 10) viewed their colleagues VoiceThread presentations, stating "I viewed a few of my colleagues' presentations. . . was interesting to see their thought process." Increasing students' overall communicative participation within a collaborative culture can "promote high-level order thinking" (p53).[19] Having the opportunity to practice presentation skills and develop professional vernacular is also part of any educational process. Bridging the gap from student to professional through practice can be achieved with VT. As one participant shared "I learned how to improve my slides. . . how to better organize my assessment so that when someone reads my work they can follow and visualize what I saw." Honing in on professional presentation skills requires practice.[5,24]

When asked if they felt that the assignment increased their knowledge retention, all agreed (n = 13) that it did, providing feedback such as "I do feel as though I retained more knowledge. . . able to go through. . . plan then record and re-record my voice thread if necessary, so I really have an in-depth understanding of the information." Empowering students to take responsibility for their own learning, to be proactive in the process by providing a safe learning milieu, is what an educator strives to do. Pedagogically, VT fulfills this scholastic and academic dynamic. VT can support a students' understanding of the course material, promoting critical thinking, and reasoning.[14,16,21] Meaningfully engaging interactions based on the course content can lead to enhanced knowledge retention.[23] As one participant stated, "There was visualization that embedded new information. . . the format of. . . presentations were attention grabbing. . . the voice overs were not dragging which indicated that many applied themselves to provide a good report." This further demonstrates VT effectiveness as a pedagogical tool, as shared by one participant stating, "had to work hard to prepare to avoid embarrassing self if being publicly viewed among colleagues." Being conscious that your work might be listened to by others can motivate a student to perfect their recording by being conscious of mistakes, practice and rerecord.[8,24]

When asked about any difficulty developing and/or uploading VT assignment, only two students commented that they did experience issues, stating "It was a bit hard for me. . . I wanted to be as close to perfect as possible, not dragging, or repetitive." "It was. . . difficult. . . not so advanced with technology. . . after completing. . . power points and uploading. . . found. . . the effects that was applied to. . . power points. . . not functioning. . . decreasing the visual effect that I had planned for my presentation" while another participant shared that "It was difficult at first, but I later figured it out." All teaching platforms have barriers. Technical difficulties, a lack of digital skills and new to VoiceThread technology can be viewed as barriers.[18] It can be time-consuming and there can be anxiety with recording narrations.[13] However, providing students with a VT demonstration video can alleviate some of their anxiety as all participants (n = 13) responded that they reviewed the researchers' VoiceThread resource prior to creating their own, with some participants stating, "Extremely helpful", "Decreased some of my anxiety about the assignment" and "Found it very helpful". Providing resources and assignments requirements can alleviate student anxiety.[24]

Additional feedback from participants confirmed the positiveness to this VoiceThread assignment, stating "I would continue with the assignment because it lets people know that in their career. . . there are many ways to educate." "Ty professor for coming up with these innovative methods of learning." Creating innovative exciting learning formats begets an excited learner.

3.2 Educators' perceptions of using VoiceThread

The authors' perceptions of this assignment were equally favorable. Creating the demonstration video for the students established a comfort and ease with the technology, which is corroborated by other faculty members perceptions of the educator being the learner first.[27] Learning the process firsthand assisted me in understanding what my students would experience. There was an overall enjoyment in listening to the videos instead of reading papers. It was an active process, whereby I had an opportunity to hear the students in an otherwise non-face-to-face course, a surprisingly unique personal experience. Educator initiative-taking interactions and participation is an important factor in all educational formats, perhaps more so in an online course. A student-centered learning environment must have an active educator-facilitator who empowers students to achieve self-accountability and self-directedness in their learning process.[31] I chose to hand write feedback via a personalized email to each student as well as provide feedback via VoiceThread's platform. The feedback via email, as well as feedback via VT comments, felt like a duplication of effort. In the future, I would keep minimal handwritten notes with most of the feedback via VT's application itself, which would be more effective. Instructors' constructive feedback was positively received by students within the inclusion of VoiceThread.[28] I discovered I was able to get a better understanding of the students' integration of the course content whilst listening to them discuss their patient and present their case study content. In accordance with a study conducted with physical therapy course, the integration of VT lent itself to reflection as the educator and my own participation in the learning and teaching process.[14] VoiceThread provided a unique opportunity

to humanize the course.[2] It provided a distinctive singular experience with each student. Student grades were equally impressive, with an average of 95.53 (median = 98.00; SD = 7.64), with one student receiving 100.

3.3 Limitations

This pilot assessment has several limitations. Given the small sample size in one diverse urban university setting generalization to other schools cannot occur. A major limitation was that feedback/comments were not provided by all participants; thus, data analysis was difficult to formulate themes or achieve saturation. The researcher (who was the educator) provided her own perception of the experience. To overcome researcher bias, data gathering did not occur until course was completed with grades submitted to registrar. The validity of the survey could not be established as it was the first time this pilot assessment occurred though it was reviewed prior to use by a senior-nurse researcher colleague. This was a novel assessment of an educational assignment utilizing VoiceThread.

4. Conclusion

This pilot assessment was an exploration on a valuable tool that could enhance education in today's pedagogical environment. Integrating a new pedagogical strategy to enhance students' overall competency in a subject matter requires educators to be comfortable and confident in that teaching tool. VoiceThread, being an asynchronous video sharing platform, embraces the 21st Century students' desire for social media activities while instilling a sense of a social community presence and proactive engagement that is necessary in an any educational arena. Education necessitates an inclusiveness that is not always easy to foster and VoiceThread provides an opportunity to embrace this, without increasing students' course workload. Its integration affords opportunities to create project-based assignments that promotes proactive engagement while inspiring a sense of community. Virtual courses still need to provide learners with similar face-to-face experiences and VT can encourage learner connections, exchanges, and a community of inquiry.[19,26] Providing students with varying learning experiences expands on the dimensions of learning styles, continuing to encourage a connectiveness and presence for all in the class. Promoting student-centered learning development requires integration of a variety of active participatory and self-directed learning processes and this auxiliary educational tool accomplishes this. Educators need to continue to expand their repertoire of educational pedagogical tools to assure students success. Future research is warranted on VoiceThread utilization as online teaching/learning has taken a front seat given the COVID-19 pandemic.

Acknowledgements

The author would like to thank all participants.

Conflicts of Interest Disclosure

The author declares that there is no conflict of interest.

References

[1] VoiceThread (n.d.). About features. Available from: https://voicethread.com/about/features/

[2] Kurianski K, Marzocchi A, Soto R. Tools for humanizing mathematics classes in a virtual world (and beyond). Int J of Mathematical Educ in Science and Tech. 2021; 53(1): 698-707. https://doi.org/10.1080/0020739X.2021.1985178

[3] Fox O. Using VoiceThread to promote collaborative learning in on-line clinical nurse leader courses. J of Professional Nsg. 2017; 33(1): 20-26. PMid:28131144 https://doi.org/10.1016/j.profnurs.2016.08.009

[4] Bodis A, Reed M, Kharchenko Y. Microteaching in Isolation: Fostering Autonomy and Learner Engagement through VoiceThread. Int J of TESOL Studies. 2020; 2(3): 1-12. https://doi.org/10.46451/ijts.2020.09.14

[5] Fredricks S, Tierney J, Bodek M, et al. Developing student presentation skills in an introductory-level chemistry course with audio technology. J of College of Science Teaching. 2016; 45(4): 46-51.

[6] Pecot-Hebert L. To hybrid or not to hybrid, that is the question! Incorporating VoiceThread technology into a traditional communication course. Communication Teacher. 2012; 26(3): 129-134. https://doi.org/10.1080/17404622.2011.650703

[7] Delmas P. Using VoiceThread to create community in online learning. TechTrends. 2017; 61: 595-602. https://doi.org/10.1007/s11528-017-0195-z

[8] Kirby EG, Hulan N. Student perceptions of self and community within an online environment: The use of VoiceThread to foster community. J of Teaching and Learning with Technology. 2016; 5(1): 87-99. https://doi.org/10.14434/jotlt.v5n1.19411

[9] Stamps A, Opton L. Utilizing VoiceThread Technology to Foster Community. Learning in the Virtual Classroom. J of Nsg Educ. 2019; 58(3): 185. PMid:30835809 https://doi.org/10.3928/01484834-20190221-12

[10] Pacansky-Brock M. Learning out loud: Increasing voluntary voice comments in online classes. In Lowenthal P, York C, Richardson J. (Eds.). Online learning common misconceptions, benefits and challenges. 2014; 99-114. New York: Nova Publishers.

[11] Hannans J. Online clinical post conference: Strategies for meaningful discussion using VoiceThread. Nurse Educator. 2019; 44(1): 29-33. PMid:29634498 https://doi.org/10.1097/NNE.0000000000000529

[12] Brunyard S, Byrd S. Using VoiceThread to promote learning engagement and success for all students. Council for Exceptional Children.

2011; 43(4): 28-37. https://doi.org/10.1177/004005991104300403

[13] Alanazi A. The barriers and facilitators of using VoiceThread with ESL nursing students. J of Nsg and Care. 2017; 6(5) (Supplemental).

[14] Ruckert E, McDonald P, Birkmeier M, et al. Using Technology to Promote Active and Social Learning Experiences in Health Professions Education. Online Learning. 2014; 18(4): 51-72. https://doi.org/10.24059/olj.v18i4.515

[15] Ching Y, Hsu Y. Design-grounded assessment: A framework and a case study of web 2.0 practices in higher education. Australasian Journal of Educational Technology. 2011; 27: 781-787. https://doi.org/10.14742/ajet.931

[16] Joiner J, Patterson D. VoiceThread as a Tool in Online BSW. J of Teaching in Social Work. 2017; 39(4-5): 440-454. https://doi.org/10.1080/08841233.2019.1649787

[17] Zemlyanova M, Muravyeva N, Masterskikh S, et al. Advancing English Language Learners' Speaking Skills Using VoiceThread in Mobile Learning for Russian Tertiary Context. Int J of Web-Based Learning and Teaching Technologies (IJWLTT). 2021; 16(6): 1-11. https://doi.org/10.4018/IJWLTT.286754

[18] AlOkaily R. Benefits and barriers of online speaking practice: A case study in the United Arab Emirates. Studies in Tech Enhanced Lrng. 2021; 1(2). https://doi.org/10.21428/8c225f6e.cf3e7823

[19] Ward Y, Ward J, Lester L, et al. A Preliminary Study: The Use of VoiceThread in Online Business Courses. Information Systems Education Journal (ISEDJ). 2019; 17(3): 29-40.

[20] Guo C, Shea P, Chen X. Investigation on graduate students' social presence and social knowledge construction in two online discussion settings. Educ Inf Technol. 2022; 27: 2751–2769. https://doi.org/10.1007/s10639-021-10716-8

[21] Trespalacios J, Uribe-Flórez L. Case Studies in Instructional Design Education: Students' Communication Preferences During Online Discussions. E-Learning and Digital Media. 2019; 17(1): 21-35.

[22] Oliver K, Moore R, Evans M. Establishing a Virtual Makerspace for an Online Graduate Course: A Design Case. Int J of Designs for Learning. 2017; 8(1): 112-123. https://doi.org/10.14434/ijdl.v8i1.22573

[23] Adalikwu MT, Nsofor CC, Falode OC, et al. Enhancing Computer Science Students' Retention through Video, Animation and Audio VoiceThread Modes in Colleges of Education in North-Central Nigeria. Int J of Educational Research. 2021; 4(7): 27-35.

[24] Mejia C. Using VoiceThread as a discussion platform to enhance student engagement in a hospitality management online course. J of Hospitality, Leisure, Sport & Tourism Educ. 2020; 26: Article 100236. https://doi.org/10.1016/j.jhlste.2019.100236

[25] Donnelly M, Kverno K, Belcher A, et al. Applications of VoiceThread© Technology in Graduate Nursing Education. J of Nsg Educ. 2016; 55(11): 655-658. PMid:27783821 https://doi.org/10.3928/01484834-20161011-09

[26] Merriam D, Hobba-Glose J. Using VoiceThread to Build a Community of Inquiry in Blended RN-to-BSN Education. Nsg Educ Perspectives. 2021; 1(42): 44-45. PMid:32195793 https://doi.org/10.1097/01.NEP.0000000000000655

[27] Salas A, Moller A. The value of Voice Thread in online learning: Faculty perceptions of usefulness. Quarterly Review of Distance Educ. 2015; 16(1): 1-24.

[28] Gonzalez M, Moore N. Supporting graduate student writers with VoiceThread. J of Educ Tech Systems. 2017; 46(4): 485-504. https://doi.org/10.1177/0047239517749245

[29] Dona E, Stover S, Broughton N. Modern Languages and Distance Education: Thirteen Days in the Cloud. Turkish Online J of Distance Educ. 2014; 15(3): 155-170. https://doi.org/10.17718/tojde.91273

[30] Chadha A. Comparing student reflectiveness in online discussion forums across modes of instruction and levels of courses. J of Educators Online. 2017; 14(2). https://doi.org/10.9743/jeo.2017.14.2.8

[31] Sharoff L. Creative and innovative online teaching strategies: Facilitation for active participation. J of Educators Online. 2019; 16(2). https://doi.org/10.9743/JEO.2019.16.2.9