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VoiceThread in a Hybrid Course: Exploring the Role of Feeling at Ease on Preference of Communication Mode, Learning Experience, and Intention to Use

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Structured Abstract: VoiceThread in a Hybrid Course: Exploring the Role of Feeling at Ease on Preference of Communication Mode, Learning Experience, and Intention to Use

INTRODUCTION

Advancements in technology continue to offer ample opportunity to improve access to education. Compared to the standard classroom setting, online learning, for example, is able to reach a geographically widespread, larger number, and broader audience, which includes non-traditional students. The use of educational technology will undoubtedly help to facilitate learning, both in and outside the classroom. However, the introduction of non-conventional instructional modes, such as hybrid (blended) and online course environments, present a specific set of challenges, particularly in the context of group discussions. This study explores the use of a multimedia and technology assistant--VoiceThread (VT)--as a tool to motivate students' engagement in the context of a blended (hybrid) learning environment. More specifically we aim to implement VT in facilitating discussion, collaboration (feedback), and learning among students. Further, we will assess the effectiveness of this technology by comparing it with other traditional forms of discussions such as text-based (online discussion boards) and face-to-face discussions to indicate whether adoption of such technology is scalable to accommodate marketing or business students. In a recent study on the use of VT in a graduate online program, Fox (2017) revealed "nervous" as the predominant initial emotion participants felt when leaving an audio post. Similarly, Pacansky-Brock (2014) reported nervous as a specific descriptor expressed by users when leaving an audio or video comment on VT. Our study expands existing research by specifically exploring differences between students who experienced both low-levels and high-levels of emotional ease during an initial assignment incorporating VT technology.

BACKGROUND

Education has the opportunity to embrace digital technology as a means to offer its services to more individuals, including non-traditional students, in non-traditional settings. However, one of the challenges is how to ensure engagement and foster a collaborative learning environment given the limitations of blended and asynchronous learning. This problem is compounded by the fact that current marketing students have been found to show decreasing intrinsic motivation and be less engaged when compared to students of 10 years prior (Nonis et al. 2005). This shift highlights the need to encourage student engagement as a means to improve learning (Taylor et al. 2011). Student engagement through group discussions has been identified as one of the most commonly used instructional methods (Dallimore et al. 2004), and is perceived to improve critical thinking skills and promote higher levels of learning (Ackerman et al. 2003). However, the introduction of non-conventional instructional modes, such as hybrid (blended) and online course environments, presents a specific set of challenges when it comes to facilitating group discussions. Karns (2005) identifies that compared to the face-to-face discussion format, the online (text-based) discussion board approach is negatively viewed as it is dissociated from the real-world discussion contexts. As a potential solution to this dissociation, in this project, we investigate the use of VT as a teaching and learning tool. VoiceThread is "a cloud-based communication application that allows instructor and students to upload a presentation in the form of PowerPoint slides, images, video, or all three, add voice comments, and securely share the presentation with others enrolled in a class" (Fox, 2017, p. 20). This tool offers an alternative to discussion boards that allow students to express their opinions through voice recordings rather than in text format.

Purpose of Study

The purpose of this study is to explore the role of VT in facilitating learning in a blended course environment. More specifically we aim to evaluate the effectiveness of VT in facilitating group discussion and collaboration as a means to create a sense of belonging and cohesiveness, particularly among students

who have limited face-to-face classroom interactions. To evaluate this, we conduct a longitudinal study to measure whether over a semester-long course, students will feel more comfortable with and experience increased learning benefit from the use of VT technology through the involvement of multiple VT assignments designed to scaffold learning and increase familiarity with VT technology. The main research questions we investigate in this study are:

1) How do students with high vs. low level of ease in hybrid classes respond to the use of VT technology in the classroom? In particular, what communication mode (text, audio, video) is preferred given the different types of online participation activities?
2) How do students feel about the role of VT in facilitating class cohesiveness or sense of belonging and learning experience?
3) What are students' future intentions to use VT technology?

METHODOLOGY

The innovation we propose comprises a series of intervention that is designed to enhance student engagement and collaborative learning. It will be implemented across two sections of lower-level marketing course (Fundamentals of Marketing), and one section of upper-level elective (Integrated Marketing Communication). The intervention involves four course assignments, which all require the use of VT. These assignments are scaffolded and designed to help students understand core concepts associated with the individual courses and application of such concepts to assess real-world business scenarios. Use of the tool is expected to enhance effective learning through group collaborations and encourage students to take part in peer-to-peer feedback.

The first level of VT activity, the results of which are reported in this paper, involves an ice breaking assignment to familiarize students with VT technology. In the second assignment students are required to apply chapter concepts to questions posted by the instructor. The third level of learning takes the form of asynchronous group discussion which involves exchange of ideas within student groups for their end-of-semester group project. The final level involves student sharing their creative/analytical content in the form of presentations via VT as well as peer reviewing of student work and providing feedback through inter-group peer evaluations.

A survey is administered after each assignment to capture student feedback regarding their experience using VT technology to complete the required tasks, the general participation experience, their perception of how effective the tool was to enhance their learning and likelihood of future use in a collaborative setting. Additionally, students were also asked to report their preferred mode of communication (text, audio or video) when posting answers as well as viewing and responding to the comments of their peers. Students were asked to rate the level of engagement for viewing the different modes of responses. All the above scales were rated on a 7-point Likert scale, with the exception of the preferred communication mode, which was a categorical scale.

RESULTS AND DISCUSSION

The findings presented in this paper reflect the results from the first stage of our study, in which students were asked to report their first encounter with VT technology through a low stakes ice-breaker (introduction) activity. Upon completion of this exercise, students were asked to complete a brief online survey reporting their initial impressions of using VT. A total of 82 students completed the survey for credit counted as part of a class assignment.

The differences between student evaluation of key dependent variables were compared between students who reported high vs. low levels of ease, using the question "I felt at ease using VT for this assignment."

Using a median-split, how at ease the student felt during their initial use of VT was recoded into two different levels: high vs. low at ease in relation to their experience with the VT technology.

Student Perception of VoiceThread Technology

Independent sample t-tests were run to understand how students in hybrid classes respond to the use of VT technology in the classroom. The initial analysis reveals that high-at-ease students find the VT technology easier to set up than low-at-ease students (Mlow=4.67; Mhigh=6.26; t(80)=-4.392, p< .01). Similarly, the initial analysis has also revealed that compared to low-at-ease students, students with high levels of ease found VT technology easier to use (Mlow=5.00; Mhigh=5.98; t(80)=-2.760; p< .01), easier to learn (Mlow=5.00; Mhigh=6.22; t(80)=-3.945, p< .01), more useful (Mlow=4.58; Mhigh=5.93; t(80)=-4.197; p< .01), and more pleasant (Mlow=4.36; Mhigh=5.63; t(80)=-3.901; p< .01).

Preferred Mode of Communication

Chi-square tests were conducted to understand what communication mode (text, audio, video) is most preferred by high-at-ease and low-at-ease students when performing different types of VT participation (posting, viewing, responding). With regards to how students prefer to post, there was a significant relationship between preferred posting mode and feeling at ease (high vs. low at ease; $\chi 2$ (2, N=80) = .006, p< .05). Specifically, among students with low levels of ease, 71% of the students preferred to post using text, while 17% and 11% preferred audio and video respectively. Meanwhile, among high-at-ease students, the most preferred mode for posting was audio (40%), followed by text (36%) and video (24%). However, with regards to viewing the posts of their peers, there was no significant differences between students with low vs. high levels of ease in their preferred viewing mode ($\chi 2$ (2, N=80) = .130, p= .130). Overall, when viewing the posts of other students, 43% of all students preferred text, 33% preferred video, while 25% preferred audio. Considering how students preferred to respond to other students, there was also no significant differences between students with low vs. high levels of ease in terms of preference between text, audio, and video ($\chi 2$ (2, N=80) = .697, p= .697). Text was the overwhelming preferred mode (86%) for both low and high-at-ease students, followed by audio (11%), and text (9%).

Paired sample t-tests were used to compare how engaging students found each of the three modes of VT communication. Overall, students found the audio feature to be slightly more engaging (M= 5.30) than the text feature (M= 5.04, t(81)= -1.902, p= .061). Meanwhile, no significant differences were found between perceived engagement levels of video (M=5.28) and audio (M= 5.30, t(81)= -0.154, p= .878). Similarly there were no significant differences between the perceived engagement level of the video (M= 5.28) and text (M=5.04) feature, t(81)= -1.291, p= .200. Both the video and audio feature are equally more engaging than text.

Sense of Belonging and Perceived Learning

Independent sample t-tests were used to help understand how students felt about the role of VT in facilitating a sense of class belongingness and cohesiveness. Compared to low-at-ease students, high-at-ease students agreed more to the statement that VT technology helped them feel more connected to their classmates (Mlow= 4.58; Mhigh= 5.35; t(80)= -2.095; p<.05). Furthermore, students with high levels of ease were in stronger agreement to the statement that VT helps them to get to know their classmates better (Mlow= 4.86; Mhigh= 5.59; t(80)= -2.436; p< .05).

With regards to perceived learning, compared to students with low levels of ease, students with high levels of ease found that VT helped them engage in their learning (Mlow= 4.06; Mhigh= 5.28; t(80)= -4.011; p< .001), believed use of VT technology is more important to their learning (Mlow= 3.67; Mhigh= 4.93; t(80)=

-3.791; $p < .001$) and felt that usage of VT technology is more relevant to their learning (Mlow= 4.00; Mhigh= 5.26; $t(80) = -3.832$; $p < .001$).

Intention to Use VoiceThread

Independent sample t-tests were ran to further understand students' intentions to use VT technology. Students with high levels of ease indicated similar likelihood to use the VT technology in the future, assuming they have access to it, as students with low levels of ease (Mlow=4.25; Mhigh=4.75; $t(80) = -1.443$; $p = .153$). Similarly, students who displayed high levels of ease did not show higher intention to use VT in the future compared to students who displayed low levels of ease (Mlow=4.33; Mhigh=4.74; $t(80) = -1.122$, $p = .265$). However, students who displayed high levels of ease believed that VT technology should be used in other hybrid courses at the College of Business (Mlow=4.44; Mhigh=5.17; $t(80) = -2.176$, $p < .05$) and were in stronger agreement to the idea that VT should be used in traditional classroom settings (face-to-face) at the College of Business (Mlow= 4.06; Mhigh= 4.78; $t(80) = -1.945$, $p < .05$) compared to students who displayed low levels of ease.

CONCLUSION AND IMPLICATIONS OF THEORY AND PRACTICE

Our findings reveal that general acceptance of the use of VT in hybrid courses is positive with most mean scores above midpoint. High-at-ease students reported higher acceptance and benefit from use of VT technology. However, it is worth investigating if the gap between low vs. high-at-ease students reduce over the semester. It is also worth noting, regardless of the level of ease, intention to use VT in the future is high. Interestingly, despite students finding audio and video more engaging over text, text was often the more preferred mode of responding. Instructors should encourage use of audio/video for comments, while easing students into the process by encouraging more engaging modes over time. However, more research needs to be done, specifically on the use of VT in a group setting, for the purpose of facilitating peer-to-peer feedback, and other more complex collaborative assignments. Furthermore, we have identified feeling at ease as a strong predictor of acceptance towards VT. This suggests that instructors may play an important role in helping and preparing students feel more at ease by slowly introducing and familiarizing students to VT and making use of assignments to scaffold learning.

Thus far we have found that implementation of VT in hybrid courses may help increase student engagement and thus enhance their learning. In the future, it would be interesting to explore whether the use of VT can encourage certain types of students —non-native English speakers, international students, those who are reserved or experience anxiety when speaking in public, and unmotivated students in general—who would otherwise normally opt out of in-class face-to-face discussions while at the same time allowing them to hone their oral speaking abilities and critical thinking skills.

References Available Upon Request