Students and Computer Mediated Communications

Ever since the rise of the telephone there has been an increasing number of people using a communication technology as a means for replacing or supplementing face-to-face communications. With the rapid development and deployment and subsequent dispersal of new computer-mediated communications such as email, instant messaging, video conferencing, and VoIP to name a few, there has been an ever growing number of students who are learning to use these technologies both in their areas of study (as a subject) and in the real world (personal life). Although these technologies present a new era for interpersonal communication it also presents a challenge for today’s educational system to better prepare the students for the use of these technologies both in and out of the classroom. By looking at the level of experience and exposure of these technologies prior to “in class” instruction, the instruction methods themselves, and finally the post ‘in class” instruction results will help shed light on the future implications that computer-mediated communications will have for students.

When dealing with computer-mediated communications (CMC) students tend to have a wide variety of experience and pre-existing knowledge that adds complexity when trying to develop a means of instruction for their “in class” instruction. For the most part, students will have a great deal of “out of school” experience with computer-mediated communications in the form of email, instant messaging, and text messaging. The pre-exposure to these CMC’s seems to be greatly dependant on the behavior of those students’ social networks. The students seem to gain the behaviors of text-messaging and instant messaging through a process of Social Learning Theory, where they see the
positive reception of what others are doing and emulate that behavior in order to “fit in” or to elevate their own personal standing within their social networks. (Miller, 183-8). The activities of communicating with each other in computer-mediated communication channels seems to be reinforced by observed behavior of other peers or other role models that achieve a status or reward that is similarly sought after. The students gain experience with CMC’s so they are not left out of social events ranging from chitchat to outings and parties. This influence is also tied to the Social Learning Theory as it was stated by Bandura (1986) and how the students will imitate the actions and behaviors of their peers and role models, “Imitation is natural to man from childhood, one of his advantages over the lower animals…and learns first by imitation.” (Miller, 192). Although there is a lot of behavioral reasons the students gain experience with CMC’s outside of the classroom, they also gain some experience with it via the motivational factors of “in class” learning. The experience that is gained with CMC’s in the classroom seem to be generated by the behavioral motivation or Reinforcement Theory; being rewarded or seeing peers being rewarded by using the technologies, say as participating in a message board, emailing the professor with questions or thoughts, or opening up an asynchronous dialog with one or multiple members of the class. (Stipek, 10). Along with the behavioral motivation the students receive in the classroom they also gain experience by direct instruction of the technical concepts and implications as well in some cases the design and development of these technologies. This direct instruction is what allows the students to have a firm grasp of the technology behind the communication. When this instruction first begins the students usually may know how to use a CMC technology such as email, yet they have little to no understanding of how it (technologically) actually works. Many times after
the instruction of the technological aspects (the missing piece) this results in a Gestaltian style of learning where the students are able to put all the elements together and come to an understanding of how the technology works. (Phillips & Soltis, 33-4).

After looking at the different levels of experience and knowledge that students have with computer-mediated communication both in and out of the classroom, the new challenge becomes how to enrich their learning to better facilitate their experiences with this technology outside of the classroom and into their lives? According to the Piagetian Structures of Learning there are several components that make up the learning that occurs, in which we can understand how things operate. (Phillips & Soltis, 42-51). This theory seems to adequately explain how students learn this material as they piece together the structures of information that are relevant to computer-mediated communication technologies. So taking the constructivist approach to this instruction of information, it would be recommended to teach the students the technical details of the communication technologies along with hands on experience. By teaching the students the technical details they will have an understanding of how the technologies such as instant messaging, email, VoIP, etc. work. Couple that knowledge with the theories of communication and they will begin to see the reason for the development of the technologies. When teaching the students all of the typical “in class” type of information it would also be beneficial for them to have “hands-on” experience in the classroom. This would allow the students to actively use the information they are learning in order to see how it really works when they attempt to do it, rather than just reading about how it is “supposed” to work. This structure of information hopefully will build a more complete hierarchy of information in the students mind to better bridge the gap between novice and
expert knowledge of computer-mediated communication. (Gladwell, 1999). When teaching this information it will also be helpful for the students to see how this information can help them in the field once they are no longer in the classroom. By having an underlying understanding of the technology and related theories and technical information the student should be better suited to solve problems that occur in the real world that there are no applicable training methods for due to the ever changing technological environment.

Given the fact that the experience and learning that students have with computer-mediated communications is vastly different from that they learn out of school versus in school, it begs the question as to what will the difference be between their original experience and then their experience after the previously mentioned instruction methods have been implemented? After the students have received their instruction they should have a deep understanding of the technology and concepts behind computer-mediated communications and feel as though they have the confidence to tackle any problems or challenges laid before them. With this knowledge they should appear to have an expert understanding of the subject and be able to see a cognitive picture of the problem and solution as opposed to their prior instruction in which all of the information was random and unconnected which led them to make poor and often wrong assumptions and solutions. (Gladwell, 1999). After the instruction period the students should also be much more motivated in the area of computer-mediated communications compared to their motivation prior to the instruction. The motivation they will feel will most likely be due to the continued success they will reap as they continue to master their technology
and gain praise in both tangible (monetary) and intangible (respect) in their careers. (Graham & Weiner, 63-65).

Overall, the increasing dispersion of computer-mediated communications has changed the way many people interact with each other. These new technologies have a wide variety of impact on the individuals who both use and study CMC technology. While students who study such technologies have some experience with CMC that is primarily driven by social and behavior motivation prior to receiving instruction, after they have been instructed by the methods described earlier, those same students should have a deep understanding of the technology and be better suited for their careers in the ever challenging and consistently changing field of information technology.
Works Cited


Miller, P. Theories of Developmental Psychology. Chapter 3: Social learning theory.

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