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"With You I'll be Able to Actually Learn Everything": Exploring Learner Experiences With a 'Study With Me' Video

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Abstract: Study With Me (SWM) videos are recordings of individuals silently studying for hours with minimal interaction with the viewers. Despite the lack of any instructional and conversational elements, these unique virtual spaces continue to attract millions of viewers. In this paper, we conducted a Thematic Analysis on the comments generated by viewers for one popular SWM video to understand why viewers engaged with the video and what benefits they may be getting from their engagement. Our analysis revealed four themes: (1) the SWM video provided social support for studying, (2) the SWM video created an idealized structured study experience, (3) the video content creator was seen as a relatable role model and, (4) viewers found the SWM video benefitted short-term and long-term goals. We discuss the theoretical implications on social learning processes and practical implications for designing social aspects of learning environments.

Introduction

Online learning platforms have gained popularity over the years as an important resource for learners. Recently, the Covid-19 pandemic forced learners around the globe to quickly adapt to online spaces as a dominant part of their learning and studying routines. A new phenomenon in online learning is Study With Me (SWM) videos that show a prerecorded video of a person, the *content creator*, studying silently for hours without any direct interaction with an asynchronous audience of *viewers*. Despite the lack of any instructional and conversational elements, these unique videos continue to attract millions of viewers who exhibit a high level of interactivity and engagement through comments posted on these virtual spaces. These public, informal, generally unmoderated, and self-organized online affinity spaces (Gee, 2004) serve a sizeable collection of viewers who seem to receive educational benefits from the experience of observing another person studying. Yet, little work exists to examine how these SWM videos may be supporting viewers during studying activities that are usually done in isolation. To address this gap, we investigated this unique form of social learning by examining an SWM video as a naturally occurring, self-sustaining online affinity space, to expand our current theories of learning and incorporate this understanding into our practice. In this paper, **our goal is to examine the authentic viewer interactions in an online Study With Me video** to understand the learning experience of engaging in these affinity spaces, including why people come to these virtual spaces and what benefits they feel they receive from their visits.

Theoretical background

The need for social interaction during learning may be a strong impetus behind the formation of educational affinity spaces, where people seek out others who share similar interests, activities, or goals. Gee's conceptualization of affinity spaces (2004) provides a useful lens to investigate online asynchronous learning spaces, such as SWM videos, and the interactions taking place around them. Rather than 'communities' to which people 'belong' or of which they are 'members', Gee suggests that we talk of affinity spaces to capture contemporary forms of social affiliation. Affinity spaces are loosely organized social and cultural settings in which participants are connected by some *common endeavor*. Gee's framework allows us to examine the configurations of virtual spaces that characteristically have fluid participation patterns by shifting our attention away from notions of membership in communities towards focusing on people's interactions within these spaces. As such, SWM video sites represent affinity spaces for people studying remotely and asynchronously across the globe.

The role of affinity spaces as a space for interaction where people can engage socially with others in an informal context around a common endeavor is consistent with situated views of learning or learning in authentic contexts. This perspective emphasizes the role of social interactions to deepen learning when participants engage with each other in the learning experience. Social learning theory proposes social interaction, including observing and imitating others, can lead to the acquisition of new understanding and behaviors, because learning is an emergent and co-created social process (Cress & Kimmerle, 2018). The importance of social influences on learning can be seen in modern movements towards collaborative learning spaces where co-creating knowledge happens within the structure of collective problem solving (Miyake & Kirschner, 2014).

A unique form of social learning exists, where the social interaction occurs passively rather than actively, as in the case of learning in the presence of others. For example, students get together to study in shared spaces, such as libraries, without necessarily sharing any materials or interacting with each other directly. Researchers have shown that some students prefer studying with their friends at libraries because they enjoy their companionship and because simply being in the proximity of others helps their concentration (Bersani et al., 2013). Similarly, research on co-working office spaces such as WeWork, suggests that the passive social presence of others and watching other people working, may lead to increased productivity by improving motivation to work and by providing a sense of energy (Swezey & Vertesi, 2019). In this way, passive social experiences can positively influence learning by supporting motivation or self-regulation, where the structure of a learning space, modeling of good habits, and the implicit and explicit encouragement from others can influence activity (Winne 1995). While some research has been done to establish these passive social influences on learning and behavior, few studies examine why people choose to engage in these behaviors and what benefits they feel they receive.

Online learning platforms are a unique educational medium that provide opportunities for 'anytime/anywhere' learning. Videos as instructional tools have become a prominent approach to online learning, particularly during the Covid-19 pandemic, where videos can be quickly delivered as educational content to millions of viewers on an impressive array of topics. For example, Khan Academy is a leading free online resource that offers instructional videos and materials on hundreds of topics, from math to history, to over 48 million users in over 190 countries (Khan Academy, 2021). These sites can act as a resource for student's self-directed learning, including goal-setting, creating strategies to achieve those goals, and then evaluating those goals (Suciu, 2020).

YouTube represents the most prominent site for hosting educational videos, covering topics from cooking, home improvement and language learning, to geometry, rocketry, and physical education. Commonly these videos include instructors who discuss a topic or demonstrate a skill or technique. YouTube's platform also offers social networking features (Ellison & Boyd, 2007), where its text-commenting facility introduces a resource beyond the content in the videos. YouTube comments provide a space for coherent textual interaction around each video where multiple viewers can engage in asynchronous conversations (Boyd, 2014; Burgess & Green, 2009). These viewer interactions about and around the videos make YouTube an important online space where content is continuously bring transformed through people's ongoing social interactions through reading or posting comments. The use of YouTube as a *social* networking site has implications for how studying with SWM videos may be transformed into a social activity, even though it is at face a passive activity.

Research has shown that the design of environmental and structural features impacts learning and behavior (Taylor, 2009). SWM videos vary widely in their designs including synchronous or asynchronous sessions, the number of people present in the video, length of the videos, background features and whether the video creator speaks out loud or faces the camera. Often SWM content creators make a series of videos over time that are hosted at a YouTube *channel* that presents a curated list of studying videos. The use of these SWM videos as studying tools has exploded over the past few years with many content creators routinely attracting millions of views per video. Thus, SWM videos have emerged as a common learning resource and affinity space for students across the globe that warrants examination within the larger context of learning sciences and educational research.

We have found two early studies of SWM in the literature that have utilized interview data from the viewers and content creators to offer some insight into how people use the videos and the content creator's perspective in making these videos. This early research on SWM studying suggests that viewers are able to personalize ambience at a low cost through their selection of specific SWM videos and get emotional support during their studying (Lee et al., 2021). Additionally, the content creators were motivated to produce content because they sought supervision and connection with others during their studying activities (Wang & Zhang, 2021). However, as research on SWM is limited, we believe an in-depth examination of the content creator's and the viewers' authentic interaction via comments further inform our understanding of SWM as a learning environment and offer insights about theory and practice of learning in affinity spaces and of socially situated learning more generally. These *interactions* within the SWM affinity space, constantly modify and transform the content and space providing a rich source of people's perspectives and social interaction. Through examining these interactions, our goal is to explore *why* users are drawn to studying with these videos, *how* they interact with each other, and *what* outcomes viewers achieve with their studying. Specifically, we ask the Research Question: **Why do viewers view, study, and engage with SWM videos, and what benefits do they believe they get from interacting within this space?**

Method

For this study, we selected a single YouTube SWM video, posted in 2017, from a popular video content creator who has posted dozens of videos on their YouTube channel. This video was chosen as representative of highly regarded SWM, because it has over 7 million views, a significant number of likes (104,667), relatively few dislikes

(2,178) and a large number of comments (4,350) that provide a rich set of viewer responses and interactions within the video space. In this video, the video content creator engages in structured studying, their gaze turned away from the camera, accompanied by a curated music playlist in the background. The video is structured utilizing the pomodoro technique, a time management strategy that breaks down a large task into a series of smaller tasks. This video is 2 hours and 32 minutes long, with timed pomodoro study segments of 25 minutes followed by a 5-minute break. The content creator has a simple study space with minimal décor (See Figure 1). During the video, the content creator can be seen highlighting a book, taking handwritten notes, and reading on her laptop. While the angle of the video switches throughout the video, from the side of her desk to the upper corner of her desk, the content creator never engages in any direct interaction with viewers.

Figure 1
Image from Study With Me video

Our analysis began by downloading all 4,350 comments verbatim from the SWM video post. Next, we removed any indecipherable or irrelevant comments, such as advertising or random symbols. We then conducted a Thematic Analysis (Braun et al., 2016) to analyze the content of the comments. We began with a process of open semantic coding on a subset (20%) of the data and used the semantic codes to generate a series of latent axial codes. The final set of axial codes was defined and reviewed by the three authors and one additional research assistant to resolve conflicts, and then applied to the entire dataset. All four researchers used these codes to iteratively propose and refine emergent themes, and finally reached consensus on four themes that reflect the viewers beliefs and interactions within this SWM affinity space. We present each theme, along with evidence from viewer comments, as quotes, to support those themes below. Quotes are attributed to the comment number from that post, and abbreviations and misspellings left unedited to capture the poster's actual comment accurately.

We reviewed the video and YouTube comments according to the Ethics of Using Social Media Data in Research Framework (Townsend & Wallace, 2017). Based on this framework, we determined that the video and comments were reasonably expected to be observed by strangers, that the participants were typically university students who do not represent a vulnerable population, and that contents of the video and comments did not contain sensitive subject matter. Based on recommendations from Townsend and Wallace, we chose to anonymize the viewer usernames by attributing quotes to the comment number rather than usernames and blur the content creator's face in our illustration of the SWM video.

Results

We found that viewers seemed to build a robust social environment in the SWM affinity space where they often described their feelings, reported their achievements, and engaged in a form of social connection making with the video creator and other viewers through the posting of comments. For example, one viewer explained the many benefits they felt they received from engaging with the SWM video over a period of several years:

> After 4.5 years, I have finally graduated with my bachelors degree. I finished finals a week ago and I wanted to come back by and thank you for making this video. I watched this video countless times and studied "with" you when I didn't think I could possibly get it all done by the deadline. Endless cramming and work on assignments can be lonely stuff, so it was nice to have it feel like someone was there working hard alongside me. Thank you for studying with me all those times ❤️ (#2969).

Detailed comments like this were frequent and demonstrate that the SWM video deeply impacted viewers' studying experiences to the extent that they felt compelled to return to the affinity space and express their appreciation towards the video creator. Our analysis of the video comments resulted in four major themes

that help us understand why viewers engaged with this SWM video: (1) the SWM video provided social support for studying, (2) the SWM video created an idealized structured study experience, (3) the video creator was seen as a relatable role model and, (4) viewers found the SWM video benefitted short-term and long-term goals. We describe each theme below supported by direct quotes from the SWM video comments.

Theme 1: The SWM video provided social support for studying

Our analysis showed that viewers felt the SWM video provided social support to viewers in three main ways, including: (1) the video made viewers feel less lonely, (2) the video site provided a space for social connection making, and (3) the digital presence of the content creator felt like they were actively studying with someone.

First, viewers directly described their experiences with using the SWM video as making them feel less lonely while studying. Viewers often explicitly stated that they were dealing with loneliness while studying such as saying, "This video has been so helpful in keeping me motivated and on track (and not dying of loneliness. I haven't actually spoken to anyone all day)" (#0053). Viewers indicated how watching the video helped them get through emotional or difficult phases in their school life when they felt "extremely alone" and "feeling like I had no friends" (#2299) or through particularly challenging personal times during Covid such as, "I'm watching this as I'm trying to get use to uni life and coping with my mental health… it helped so much especially during quarantine times where no one is around." (#2596). Specifically, viewers wrote they experienced feelings of togetherness during their viewing experience, saying "even though we are studying separately we are all in this together" (#1372) and "love the we're in this together vibe." (#0198).

Second, these feelings of togetherness appeared to be directly supported by the way viewers used the SWM space for social interactions with other viewers. These interactions were often similar to what you might observe in an in-person physical study session or study group, and sometimes included responses to comments from the content creator or led to detailed exchanges between viewers. Viewers asked questions, such as, "Would you mind if i ask you to tell me the name of the song at the very beginning (~04:11)?" (#0218), made suggestions, such as, "would you mind putting in a tiny bell or something at the end of each session?" (#0333), or added compliments, like the "music is superb" (#0276). Some viewers even added humor, for example, "Who's working to exams and drinking coffee like water like i do?" (#0117) that would draw responses, like "This is barely the first week of the term and i am already doing this hahaha" (#0117-3). Many times, viewers stated they spent time reading other people's comments, "Spending my 3-5 minutes reading YouTube comments LOL" (#0643), indicating that the comment section played a social role for viewers. These types of comments demonstrate a way that viewers were reminded they were not the only ones using the video to study making them feel less isolated. These social comments may have provided viewers a break from focusing on their activity and played a role like the conversational snippets people experience in an in-person study session. Additionally, viewers connected through reflections of their own cultures and their opinions and beliefs about school systems and studying patterns. For instance, one viewer responded to a comment that elaborated on studying habits in a viewer's home country, South Korea, by saying, "I am from Nigeria and I can say it's almost similar. You're to study without failing. I'm in uni now and it's by far the hardest task to survive especially when you have lecturers who are not willing to be merciful and make it harder for you" (#0058-19). Overall, viewers engaged socially through comments and this likely helped foster a sense of community and togetherness in the SWM affinity space.

Third, viewer comments suggested that they felt like they were actively studying with the content creator and with other viewers who were watching the video. For example, one viewer commented about studying with other viewers when they said, "It's really nice to be streaming and knowing others are watching or to watch others working. It's like having a friend study with you :)" (#0210). Similarly, a viewer elaborated that they had difficulty studying alone but because of the SWM video they had access to social support remotely, and finished by saying, "studying 'with' someone helps so much" (#1362). Furthermore, viewers brought up the issue of struggling with concentration and described how the digital presence of the video creator provided a support mechanism in terms of monitoring behaviors. For example, one viewer explained that their ADHD condition made it difficult to concentrate but they were able to receive support through the SWM space as they "need some one to monitor me or some to work with" (#1239-1).

Viewers referred to the content creator as their "study buddy" (#008) and described how the content creator helps avoid distraction and instilling beliefs that they could accomplish their tasks. For example, one viewer said, "studied "with" you when I didn't think I could possibly get it all done by the deadline" (#2969), and another said, "When I study, i would usually get distracted very easily. But when i study with you i am able to finish revising so many things in a day" (#2336). Additionally, viewers felt the content creator's digital presence provided social and mental support to help with loneliness. Viewers said, the content creator helped them "get through the toughest and hardest times … you made me feel that someone is here and struggling too"(#2545) and made them "feel like I am not alone and like someone else is making sure that I am studying" (#0400). Thus, the

asynchronous nature of the SWM space seems to allow a unique type of controlled and passive social interaction where viewers can feel socially connected to others and experience a sense of actively studying with someone without distraction.

Theme 2: The SWM environment created an idealized structured study experience

In addition to the social supports, viewers found the SWM video was helpful in generating an ideal mood for studying in two ways, by creating (1) a structured studying experience using the pomodoro technique, and (2) an idealized setting through different environmental features.

The Pomodoro technique utilized by the content creator was lauded as providing necessary structure to the studying process leading to increased levels of productivity. The viewers found that the structure helped them to "work much more efficiently" (#1291) and that the technique is a "great choice for me, because I'm this type of person, who needs to have many little breakes" (#0596). Viewers commented that the length of the pomodoro sessions helped them to remain focused, such as, "First time in my life - studied for 2.5 hrs" (#0382), create a routine where they could "study regularly"(#0399), and effectively incorporate breaks into their study sessions, such as, "The day before tests I'm always in let me get all I can get info mode, so I always forget to take breaks, but this reminds me to take breaks so I absorb the information and not feel overwhelmed" (#0435).

Viewers frequently credited environmental elements, such as the music, movements the content creator makes during studying, the soft lighting in the video and the content creator's cat, as creating the ideal setting for studying, but these were not all universally liked. Often viewers would refer generally to the calming nature of the environmental features, such as one viewer who said, "having a low work ethic and anxiety means that it's always been quite difficult for me to focus. These helped so so much to calm my nerves and keep me on track" (#0708). For others, they specifically mention features, including the music that was often credited as setting the right mood for viewers who commented that the music "is so calm yet give you the push" (#1384), "switches my mind and mood to study" (#0836), and "makes homework enjoyable" (#1154). One viewer said, "I really felt alone when studying by myself but hearing the music and knowing you were studying too gave me motivation," (#1340) indicating that the music enhanced the motivating feeling of working with someone. Music was such a significant element in the video that comments commonly referred to the precise point in the video that helped them study, such as comments that said, "suddenly at 58:18, it was like my books hypnotized me to study more" (#0671), and "at 35:45 the music really helped my studying" (#0606).

Viewers credited small movements of the content creator as supporting a studying atmosphere. For example, "the paper turning or the book flipping that just put you in the studying mode" (#0045). For some, the content creators' pet cat added to the setting, being referred to as "a great supervisor" (#1004) and described as giving "me so much motivation!" (#0906). The lighting in the video was described as creating the right mood as one viewer pointed out, "think the environment and the lighting she study in makes these videos perfect" (#1836). Moreover, these environmental elements induced feelings of calmness in viewers who said the video was "the most peaceful and calm study session" (#2601), helped to "wash away the anxiety" (#0285) and "calm my nervous distraction attacks" (#0361). These comments suggest that rather than the novelty of the video scene, it was the sense of calm and focus supported by the environmental elements in the video that led viewers to repeatedly return to this video during studying, as viewers indicated they "watched this video countless times" (#2969).

Finally, while most viewers felt that the video environment played a positive role by enhancing their studying experience, some described the same features as having a negative effect on them. For instance, viewers pointed out that the music choice was "a little too intensive for studying" (#0274) and the "music and the rhythm is distracting me from concentrating" (#0386). Similarly, some viewers felt the presence of the cat in the video was a source of distraction for them, and they "literally cant stop looking at the cat and not studying" (#0023-1).

Theme 3: The content creator was seen as a relatable role model in the affinity space

We found that video comments frequently referred to the content creator as a relatable role model in two ways, including: (1) she was inspiring and motivational because she embodied the characteristics of the ideal study partner, and (2) she was viewed as a study expert to that could offer studying advice.

First, viewers described in detail how the content creator's studying habits inspired and motivated them. For example, one viewer said, "you seem so focused, that is good and inspiring some how" (#0059) and "seeing you study for that long motivates me to study extra" (#0246). They often described the content creator as someone who embodied the characteristics of the ideal study partner. For example, one viewer said, "sometimes it's great to have someone as motivated as you to keep you going and help you stay disciplined" (#0216). Viewers frequently pointed out the content creators' specific positive study behaviors such as her ability "to study like this without even touching your phone or spacing out while in pomodoro" (#1173), to have "no distraction, no texting, no messages" (#1334), and displaying exemplary behaviors such as, "reading and typing on the laptop at the same

time" (#0783) and "if you can keep going so can I!"(#0613). Viewers who identified themselves as students in medical disciplines in the comments found the content creator particularly relatable. For example, one viewer said, "The process of becoming a doctor is the hardest thing I've ever done and I just keep wanting to give up. You are about 3 years ahead of me but watching you go through the process (and your struggles along the way) make me feel less alone now that I see where you are" (#1183).

Second, viewers saw the content creator as a study expert and sought advice from her on general study questions. For example, viewers asked for "some study tips and tricks that will help during exam time"(#0081) and "any tips with textbook use?" (#0110). They also sought elaboration on particular techniques such as "a specific method for retaining information" (#0083) or dealing with issues while studying such as "I don't how to deal with my studying if i got problem in life, in that case, I have no idea to concentrate on my study. Hope to get advice" (#0196). These comments suggest that the content creator took on a role that is more significant than a silent study partner. The posted comments showed evidence that viewers perceived the content creators' discipline and good study habits as something to be modelled. For instance, one viewer said "I wish I have the same discipline that you have" (#1936) and another shared, "I have huge problems with discipline and concentration…whenever I start to look around and procrastinate I see you and I'm like "Uhh, I really should be studying" and get back to it" (#1429). These comments help us recognize that the content creator was seen as a role model who motivated the emulation of similar behaviors in the viewers.

Theme 4: Viewers found the SWM video benefitted short-term and long-term goals

Our final theme demonstrates how the SWM video was used by viewers as a tool to: (1) provide focus and motivation while studying in the short-term, and (2) help them accomplish measurable short and long-term achievements.

Our analysis suggests that the SWM video helped viewers self-regulate as the content creator's presence, albeit in an asynchronous video, played a role in engaging with the video. They explained that seeing the video creator studying hard and concentrating had a positive effect on the amount of time they studied. For example, one viewer said, "For 21 years i could not study. Now for 2 days i'm studying with you and time flies!"(#0168). Others felt the video broke their "procrastination cycle "(#1053) to improve their productivity, such as comment #2601 that stated, "Math would normally take me about 3.5- 4 hours to solve 95 questions but today I finished 95 questions in 1 hour!!!". Moreover, viewers expressed that the SWM video made them feel accountable such as, "it's nice to study "with" someone so i feel like i'm being held accountable when i get off track" (#0292). In these ways, viewers express short-term benefits of improving concentration, productivity, and accountability.

Viewers also attributed visits to the SWM video as helping them in accomplishing specific measurable achievements in the short and long term. Describing the benefits for short-term achievements typically including exams and course work, including "finishing my general chem 1 lab report" (#0302) and "passed my Organic chemistry exam" (#0596). These comments illustrate that viewers turned to the SWM video as a support for their learning in particularly stressful times for high stakes exams and assignments. Additionally, viewers credited the SWM video in helping them achieve more long-term objectives such as completing classes, medical school, or graduating from college. For example, one viewer had used the SWM video to "get through about two months of my EMT class and still going!" (#0655). Another viewer shared they had graduated from business school and "if it wasnt for ur videos at 5am, or midnight or 4 pm, I wouldn't have been able to study for those exams." (#0896). Similarly, another viewer said, "I just finished my bachelor degree. I would like to come back to your channel and thank you. Your videos contribute a lot to my success" (#0913). Here, these comments demonstrate how users felt the repeated and prolonged use of the SWM videos benefitted their long-term goals.

Discussion

In this paper, we set out to explore how and why viewers use SWM videos, an online asynchronous version of studying in the presence of others. We examined one YouTube SWM video to see how this virtual affinity space provides social support and opportunities for social interaction during studying activities usually done in isolation.

Our findings suggest that viewers are drawn to the SWM video to achieve short-term and long-term goals, because their studying experiences are transformed by indirect and passive social interactions, the structured studying and idealized video environment, and the positive influence of the content creator as a studying role model. Viewers found the presence of the content creator motivated them to engage in efficient, focused, and prolonged studying behavior, and described the comment space as a way of feeling connected to the content creator and other viewers who were potentially engaged in the same studying experience. We believe these findings provide important insights into the learning experiences of people as they engage in an online, asynchronous studying environment including: (1) the impact of indirect and controlled social interaction on learning, motivation and studying behavior, and (2) the importance and affordances of environmental and

structural features in these learning environments. Here we discuss how our results support and expand on prior work and explore the practical implications of these findings.

First, our findings suggest that social engagement was critical to many of the viewers of the SWM videos, and that people participated in these asynchronous online spaces to find a social space to study. This indirect social interaction took two forms, one as a feeling of collective activity with other viewers, and the other as a passive studying experience with the content creator. Viewers made connections to others across the globe by posting about specific goals and outcomes and sharing their study habits, such as their difficulty in studying for long stretches of time or being easily distracted when studying by themselves. As in prior work, these goal-stating comments and sharing of practices, as self-reflections, can help viewers practice metacognitive skills that are beneficial to self-regulation during their learning experience (Winne, 1995). The results also indicate that the SWM affinity space filled an important gap in viewer's studying experiences by allowing them to access this social space at any time of the day or night, where feeling connected to others despite odd hours helped people stay motivated and focused. This on-demand social experience helped solidify the communal feeling of working with others, as seen in library study groups (Bersani et al., 2013) and towards a common endeavor, as is common in affinity spaces (Gee, 2004), but further provides flexible access to the space and social activity.

We believe that the viewers' perception of the content creator as a role model is unique in that viewers seemed to find the content creator's simple act of studying as inspirational. Viewers often commented on her exemplary studying skills, where the content creator displayed complete focus and attention by keeping her gaze on the computer screen and textbook throughout the video session. Observing the modeling of such positive behaviors by the content creator seemed to have a significant motivational effect on the viewers who wanted to emulate her. This response to the content creator's modeling may represent an important social influence on the viewers behavior. Comments that indicated the feeling of studying with someone and the benefits of seeing the content creator actively working, such as "if you can keep going so can I!" (#0613) demonstrate a type of companionship and camaraderie in the experience similar to research on in-person co-studying (Bersani et al., 2013). We were struck by how much viewers found that this modeling effect works even through a pre-recorded video, and that one well modeled studying session could benefit millions of others. These findings show the importance of co-studying and that it can be accomplished remotely and asynchronously. We believe these findings demonstrate the strength of student needs for social connections, even in passive forms, as motivation and positive social influences during learning activities.

Our second main finding shows that viewers frequently attended to environmental features, beyond the content creator's presence, in the SWM video. These environmental features included the structure of the pomodoro technique, the presence of the content creator's cat, the curated music playlist, the dim lighting, and the video creator's movements (such as highlighting text and concentrating on the computer screen) as creating an ideal ambiance for their studying experience. The elements of the video seemed to be instrumental in drawing people into this space and bringing them back repeatedly because the experience of studying with the content creator evoked feelings of calmness, motivation, and focus, as one viewer said the video "helped so so much to calm my nerves and keep me on track" (#0708). Empirical evidence in research has illustrated the importance of environmental and structural features for the design of learning environments (Taylor, 2009), and our findings help illustrate how this effect holds for asynchronous online learning environments as well. This study has practical implications for improving students learning and studying experiences and suggest that learners may benefit from the design of informal and formal learning environments that include designing for specific environmental features to evoke positive affective responses. Our findings suggest that details, such as lighting, can be influential, and should be carefully considered when creating online learning materials, such as video tutorials, but also for in-person learning spaces, particularly when students are asked to work independently.

These two findings help build on existing theory on social learning in affinity spaces by examining a uniquely passive social learning experience, the SWM video, to understand the naturally occurring, self-sustaining interactions within this space. We used Gee's framework to conceptualize affinity driven interaction in the SWM video to inform our understanding of why these spaces exist and continue to grow. Further investigations into the social interactions of viewers outside of one SWM affinity space, such as in other SWM sites, can help us understand how these affinity spaces connect, and how the movement of viewers across these spaces allows additional opportunities for connection making that support viewers studying and learning experiences. These SWM videos also inform our understanding of social learning, more generally, in demonstrating the strength of passive social influences on studying and learning, where we expand our understanding of shared learning activities (Cress & Kimmerle, 2018) to include asynchronous interaction and passive influences. The practical implications of the study point towards changing our current practices of asking and expecting students to study alone. This study shows that people have a strong social need to feel connected to others and that co-located studying, even when it's in the form of a digital presence, is beneficial to people's learning experiences.

Conclusion

In this study, we demonstrate that asynchronous online affinity spaces such as SWM videos may have emerged to meet the need for learners to experience social connections and positive environmental influences while they engage in otherwise isolated studying activities. We believe this further strengthens arguments for social engagement during all forms of learning, in and out of formal classrooms. We recognize this study is limited in examining one SWM video, and by analyzing only viewer comments as evidence of the activity in the affinity space. We plan future studies to broaden this examination to include multiple videos from multiple content creators, and to look at how individual viewers may interact with different content creators and different videos over time. Future studies may also include interviews or survey-based research of content creators and viewers to include their retrospective perspectives or may include experience sampling or think-aloud studies to examine the actual process of studying with SWM. We also recognize that our study is limited in only examining asynchronous SWM, and suggest additional work to explore how newer platforms, such as Twitch, support synchronous forms of SWM. In summary, the rapid prominence of SWM videos as studying tools demonstrates how valuable social companionship is during learning, and this should impact the way we design all forms of learning. We hope to build on these insights to improve learning experiences for all students.

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This section is intentionally left blank for anonymity.