

## Forging Connections and Fostering Belonging: The Role of Positive Psychology in the Virtual Classroom

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*Abstract: Technology has expanded the landscape of higher education. The ability to learn almost anything from anywhere at any time has impacted educational attainment, particularly for those who lacked access in the past. Many who enter the virtual classroom, however, do not stay. Completion rates for online learning fall short, especially when compared to in-person experiences. For all its advancements, online learning has also created a chasm in human connection that influences learning. We are not made to connect through wires. Though we may espouse having multitudes of “friends” online, developing a true sense of belonging and connection must be purposefully developed when working through a screen and keyboard. This reflective essay interrogates the use of technology in higher education and encourages the inclusion of positive psychology practices to bridge the gap of human connection that is an integral part of student success.*

*Keywords: virtual connection, belonging online, positive psychology, positive introductions, motor synchrony*

Some of my closest friends from school are people I've never met in person. Thanks to modern technology, I was able to earn a Master's degree in Applied Positive Psychology (MAPP) from the comfort of my dining room table. Due to the challenges brought by Covid-19, the University of Pennsylvania transitioned its MAPP program to a virtual classroom for a period of two and a half years. Like many adult learners, I'm not sure if I could have successfully completed the program without the online format, especially during the pandemic. Beyond the academic achievement, this virtual experience allowed me to build meaningful connections with people from all across the nation and the world. It was a unique and enriching aspect of my educational journey that I had never encountered in a traditional classroom setting.

This occurrence was not coincidental, and it was particularly fitting that the field of study was positive psychology. Positive psychology is the empirical investigation of human flourishing and the optimal functioning of individuals, groups, and institutions (Gable & Haidt, 2005). Martin Seligman, the pioneer of contemporary positive psychology (2011), recognized, and it is supported by extensive data, that positive relationships are integral for our overall well-being and growth. The concepts of belonging, significance, and purpose stand as pillars in the realm of positive psychology, significantly influencing our performance and well-being.

### Technology and Education: The Double-Edged Sword

The enrollment of postsecondary students in at least one online course has significantly increased over the years, rising from 5.9 percent in 2000 to 32.1 percent in 2012 (Ortagus, 2017). Colleges and universities have witnessed the most substantial growth in their online classes and programs (Sener, 2012). Even before the onset of the pandemic, institutions of higher education in the United States were experiencing a clear trend of greater enrollment in online courses and degree programs (Shankar et al., 2021). Although higher education institutions returned to face-to-face instruction in Spring 2022, in-person classrooms still fell below pre-pandemic 2019 levels (Bay View Analytics, 2022).

However, the impact of online learning on completion rates is a mixed bag. Completing some online courses as part of a degree program has shown lower odds of dropping out of college (Ortagus, 2018). On the other hand, taking all distance learning classes increases the probability of not completing a degree (Ortagus, n.d.). Moreover, students who enroll exclusively in online courses were found to be 15.8 percent less likely to complete their associate's degree (Ortagus, n.d.), with these rates of non-completion being even higher for Black, Hispanic, and low-income students. A U.S. News and World Report, which describes an average retention rate of 55 percent for first-time full-time students online compared to 77 percent of students at traditional universities, highlights this discrepancy (Burnsed, 2010). In general, retention rates for in-person courses have been 10 to 20 percent higher than those for online courses.

Studies have shown that community college students who enrolled in a higher proportion of online courses were less likely to complete their degree or transfer to a 4-year institution, were less likely to stay in an online class in college-level math and English (Xu & Jaggars, 2011), received lower grades, and withdrew from online classes compared to students who attended face-to-face courses (Xu & Jaggars, 2013). The decline in academic performance when attending online compared to in-person classes was most pronounced among African-American students, male students, and those enrolled in social science courses (Xu & Jaggars, 2014).

In the context of COVID-19, Tang et al. (2023) studied the impact of transitioning to online learning for first-year college students. They found that although learning outcomes were not greatly affected, the sense of belonging, crucial for their experience and well-being, was lacking. The loss of this sense of belonging was a significant setback for both students and teachers, as it would have naturally developed in face-to-face classrooms (Heider, 2021). Feelings of isolation have been identified as one of the most substantial barriers to distance learning and a key reason for students dropping out (Croft et al., 2010). Since the shift to online classes due to COVID-19, students have reported experiencing feelings of loneliness, isolation, psychological distance, and disconnection from peers and educational institutions (Arslan, 2021). This lack of connection places students at great risk of academic failure or withdrawal. Additionally, the absence of connection and belonging has led to increased mental health issues, heightened anxiety regarding academic performance, and reduced academic self-efficacy in students (Alemany-Arrebola et al., 2020; Sahu, 2020).

Research conducted by Jean Twenge (2017) indicates that the generation of students currently in high school and college, often referred to as *Gen Zs* or *iGens*, is particularly affected by the consequences of technology and a lack of in-person connections. These students engage in face-to-face socialization activities half as often as those from 15 years ago, spending less time interacting in person and more time online. This generation also experiences unprecedented levels of anxiety, depression, and loneliness, coinciding with the rise of smartphones and social media. Real-life interactions have been increasingly replaced by online interactions, and while not all the changes can be attributed to technology, it seems that these digital natives may be paying the price for an online existence in terms of their sense of connection.

### **Positive Psychology and Connection**

In 2004, Shapiro and Wilson independently cautioned that overreliance on technology could potentially hinder children's development of one-on-one interaction skills and asserted that distance learning could never fully replicate the depth of education achieved in person. Today, we find ourselves at a point of no return, and with technology firmly entrenched in our educational landscape, it is undeniable that our education system has been permanently transformed by this technological revolution, presenting both benefits and challenges.

Research has shown that students who establish a strong sense of belonging in online courses tend to exhibit superior academic performance, greater retention in their chosen field of study, and heightened enjoyment coupled with reduced anxiety (Brodie & Osowska, 2021; Edwards et al., 2022). Conversely, feelings of alienation in online classrooms can negatively impact knowledge sharing intention, the quality of assistance provided, and the level of social support (Liu & Zhang, 2020; Jeng et al., 2023). In light of these findings, it is clear that we need to harness technology's potential to foster connections among students in the virtual classroom. Positive psychology emerges as a potential solution to this challenge.

Educators, guided by positive psychology, should prioritize building connections in classrooms, whether in-person or virtual. While virtual settings present unique challenges, technology can assist in this process. Profound connections often form when we're physically present, enabling affective empathy by eye contact (Ashar et al., 2021), and social touch which also enhances connection (Löken et al., 2009). Despite limitations in virtual touch, positive psychology offers alternative approaches for fostering connections and well-being across distances.

Establishing virtual connections demands dedicated time and effort, a challenge educators often face due to syllabus constraints. Nevertheless, considering the profound impact of a sense of belonging on learning outcomes, investing this time can result in improved content retention among students. Importantly, our brains are inherently wired for social interaction, even with unfamiliar individuals (Rilling et al., 2002). Educators possess the capacity to nurture this social inclination, even in virtual environments. The MAPP program effectively implemented the following strategies, markedly enhancing students' sense of belonging and connection.

### **Positive Introductions**

In many online courses, the initial assignment involves introductions which typically entails sharing details about our background, major, accomplishments, and reasons for taking the class. While not inherently problematic, this common practice does not always allow others to truly understand who we are. Extensive research underscores the importance of feeling valued and deeply understood by others (Dixon, 2007; Fredrickson, 2013; Prilleltensky & Prilleltensky, 2021). Any opportunity for students to be genuinely known by their peers can significantly enhance their sense of connection and belonging.

An alternative to the standard introduction is a positive psychology approach known as "positive introductions." Here, students are encouraged to share personal stories that highlight their strengths and values, showcasing themselves at their best (Park & Peterson, 2009). They are also taught to respond with active constructive feedback (Gable et al., 2004) and cognitive and emotional acknowledgments to foster connection and mutual respect. After instructions are given for both the introductions required and the feedback that will occur, students are sent into virtual break-out rooms in groups of three to four and given time to participate in their positive introductions. All cameras must be on for this activity. Positive introductions promote vulnerability, often leading to deeper connections (Aron et al., 1997). Participating in this exercise at the beginning of the MAPP program, I experienced an immediate sense of connection, trust, and support from three fellow students with whom I voluntarily collaborated throughout the year. When we finally met in person at graduation, seeing them felt like reuniting with lifelong friends.

### **Collaborative Assignments**

Prilleltensky and Prilleltensky (2021) underscore the significance of feeling valued and recognizing the impact of our actions (Elliott, 2009; Flett, 2018; Rosenberg & McCullough, 1981). Mattering holds

universal importance, irrespective of age, and it is notably challenging to establish a sense of mattering in an online context. The feeling of not mattering often arises when students perceive that the class continues without their presence, whether online or offline. To enhance this sense of mattering and belonging, collaborative assignments are invaluable (Hehir et al., 2021; Stoytcheva, 2021). True mattering and belonging are most keenly felt when students recognize their importance within a team striving toward a common objective. Offering opportunities for collaborative work and projects significantly enhances a student's sense of belonging. These opportunities may include time given during class for small teams to meet in virtual classrooms or requiring outside classroom time for teams to meet online. These online collaborations often allow for individuals to get to know each other personally as well as prepare for assignments. Knowing that their contributions were instrumental to a team's success reinforces their sense of mattering and impact.

Initially, I had reservations about the MAPP program's requirement for collaborative work. Group projects have never been my preferred choice, and having to do it by distance seemed even less exciting. However, within this program, I discovered that these projects not only facilitated academic collaboration but also fostered a stronger sense of connection and community. Working on assignments through a screen with others allowed me to interact with various individuals outside of our regular class meetings, enabling me to get to know them and be known by them. Like a traditional group meeting, seeing each other on screen, we could see each other laugh at a silly joke, furrowed brows when confused, and even tears when our teammate shared a personal loss. Seeing, listening, and speaking to each other via online platforms allowed us to feel that we belonged to the team, which made us more optimistic and creative (Murthy, 2020) with our projects and it showed during our online classroom presentations.

Providing students with opportunities to collaborate on projects, assignments, and participate in study groups through online, synchronous working groups, and not just online chats, not only enhances their sense of mattering but also fosters a strong sense of community (Stoytcheva, 2021). Truly belonging to an online community assures students that their absence will be noticed, that they belong, and reinforces a deeper connection between students. While remote learning students often experience a reduced sense of community (Kuong, 2015), digital interventions can mitigate this challenge.

Heider (2021) recommends real-time meetings whenever possible, the implementation of collaborative learning techniques, the development of subcommunities within the larger group, and the creation of opportunities for students to share information and their expertise. All of this can be done virtually and with some advanced platforms like Google Meet, Zoom and Microsoft Teams, it can almost feel like the face on the screen is in the room with us. The prompt use of technology, encompassing emails and text-based communication, can significantly enhance an individual's feelings of belonging, mattering, and connection with both peers and instructors (van Tryon, 2007; Wheeler, 2007). Virtual platforms now allow for instantaneous responses with emojis, chats, and physical responses like raising hands or thumbs up on the screen. Building online communities may present challenges, but with deliberate interventions, virtual classrooms can evolve into close-knit communities where individuals feel valued, seen, connected, and engaged.

## **Motor Synchrony**

As John Donne (1624) wisely proclaimed, "No man is an island," and this sentiment resonates profoundly in the realm of online education. Cultivating a sense of community within virtual classrooms not only fosters connection, collaboration, emotional support, and satisfaction but also significantly enhances student retention (Bireda, 2019; Jamison & Bolliger, 2020; Lambrinidis, 2014; Zhao, 2003).

Another effective approach for creating a robust learning community is through synchronous virtual classes or a hybrid model that combines virtual and in-person elements when possible (Hehir et al., 2021). This synchronous online engagement enables individuals to see each other, fostering interbrain and interpersonal synchrony, which in turn heightens the sense of connection and community (Djalvoski et al., 2021; Rennung & Göritz, 2016). Synchrony is a social tendency that enables humans to harmonize their biological and behavioral rhythms, essential for fostering healthy development, bonding, connection, and a profound sense of belonging. Moreover, synchrony enhances our "theory of mind," our capacity to empathize and understand others (Baimel et al., 2015).

In online classes, achieving synchrony is attainable when students can see each other, cameras on. However, the efficacy of maintaining cameras on throughout online interactions is subject to mixed data. A 2021 Harvard Review describes "Zoom fatigue," a phenomenon resulting from the exhaustion of viewing oneself during virtual meetings and classes (Gabriel et al., 2021). While having cameras on can alleviate the sense of isolation and enhance motor and interbrain synchrony, it is not as straightforward as it may seem. Merely having cameras on or sharing the same digital space does not guarantee community development. Intentional practices, such as engaging in conversation, participating in chat discussions, rhythmic activities like tapping to music, dancing, and coordinated movements such as marching or raising and lowering hands, can significantly magnify the benefits of interactional synchrony (Hoehl et al., 2021). In the MAPP program, we engaged in various shared activities, including dancing, singing, practicing yoga, sharing meals, and even enjoying movie nights, all within the virtual realm. Despite being physically distant, these experiences made it feel as though we were all in the same room, sharing the profound human connection and a lot of laughter.

Educators can leverage the innate human inclination to move together, akin to a flock, a herd, or a hive. Haidt's *hive theory* (Haidt et al., 2008) posits that humans thrive through cooperation and diminished intergroup competition when they occasionally immerse themselves in becoming part of an emergent social organism, ultimately reaching the highest levels of human flourishing. Was it awkward to dance in front of a screen in my dining room? Absolutely! But the feeling of belonging to a community of other awkward people who cared about me more than my dancing skills is priceless.

## Instructor Influence

When it comes to fostering connection in online learning environments, the instructor plays a pivotal role. Teacher interactions that involve being available, professional, engaged, and approachable (Mandernach et al., 2018; Martin et al., 2018; Stone & Springer, 2019) significantly enhance the sense of connectedness within the classroom. Regular and meaningful communication with students increases their feeling of connection (Stone & Springer, 2019), and positive student-teacher relationships are correlated with increased student-student connectedness (Bireda, 2019; Stone & Logan, 2018). Simply using a student's name when calling on them, noticing something that has changed with them such as a haircut or background scenery change, or just smiling while saying hello during a synchronous class can increase the sense of belonging, mattering, and connection.

Teacher presence is closely associated with connectedness in online learning environments. Whether it is seeing a teacher's face or hearing personalized audio lectures, even in asynchronous classes, it has a positive impact on connectedness, satisfaction, and engagement in remote learning (Mandernach et al., 2018; ). Active teaching, discussions, office hours, and prompt responses to online communication and posts are preferred by students over passive teaching (Jamison & Bolliger, 2020). In fact, Stone and Springer (2019) assert that teacher presence is as vital as the course content itself in remote learning when it comes to student connectedness.

These positive teacher presence and interactions align with the concept of "positivity resonance" from Barbara Fredrickson (2013). This term encapsulates "interpersonal connections

characterized by positivity, mutual care, concern, and behavioral and biological synchrony” (Major et al., 2018, p. 1631). Positivity resonance signifies moments of connection that don't necessarily require extensive or intensive time periods. These moments of pleasant subjective experiences shared between individuals accumulate over time and significantly impact health and well-being (Fredrickson, 2016). This collection of resonant moments can happen through virtual connections.

Real-time sensory connection is a vital element of positivity resonance. According to this theory, instructors should seek to optimize moments of live eye contact through the camera, synchronize facial expressions and body movements, reciprocate emotional expressions, and share laughter (Fredrickson, 2016; Lakin et al., 2003; Kurtz & Algoe, 2015). While asynchronous classes present a challenge, they still offer opportunities for intentional connections.

In the MAPP program, every instructor and teaching assistant exemplified these best practices derived from research. They didn't merely lecture; instead, they actively engaged with us, fostering an environment where we collectively experienced joy, laughter, tears, and sorrows. It was not a one-way street where they were the lecturers and we were passive vessels to be filled. Instead, their lessons reached through the computer to invite me into the connection needed to become part of the class and engage in the learning. We learned together, and most importantly, we forged connections together. In each class, I felt a profound sense of belonging and significance.

### **Defining Success**

After having these personal experiences with these online interventions during the MAPP program, I decided to incorporate them in my virtual class. It takes time and intention to create an environment that optimizes connection online. I often had to adjust the content of the lessons, more asynchronous videos were added, less lecture time and more information learned through readings. This trade-off paid off. At midterms I asked students what they wanted less of, more of, and what they needed for the rest of the semester. Most students wrote that they enjoyed and wanted to continue the exercises that were helping them to get to know each other. We started every class with some form of motor-synchrony, personal check-in, team competition or other form of positive psychology intervention that supports connection. Throughout the semester, the students were engaged with the content and each other as seen by questions that they asked, new relevant information that they shared, their willingness to be vulnerable, and the personal support they gave each other during our synchronous classes. At the end of the semester, I received feedback that included: I know every person's name in this class I don't have that in other class, I feel I could ask anyone in this class for assistance and would get it, and I have made some friends that I will stay connected to outside of this class. The impact that I could not see but Murthy (2020) would support as being created in such online experiences where “people feel they belong to one another [is that] their lives were stronger, richer, and more joyful” (p. xxi).

### **Conclusion**

In the Korean culture we have a term: “In Yun.” It conveys the feeling that we have met before and so this meeting feels natural, comfortable, and familiar. When I finally met my classmates in person at our graduation, I felt “In Yun.” My heart said, “There you are,” “I've been waiting,” “I know you.” We had met before and we did know each other very deeply. Can positive psychology assist in navigating the virtual learning landscape, effectively connecting students who are physically separated by their screens and keyboards? Absolutely. By incorporating positive psychology principles within the virtual classroom, teachers and students can authentically cultivate a sense of belonging and connection, ultimately leading to a significant enhancement of their academic performance and overall

well-being. However, this is not achieved merely by sharing screens or turning on cameras; it necessitates intentional effort, much like the process of learning and crafting a fulfilling life does.

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