

The Power of the Positive: Enhancing Online Student Engagement for Adult Literacy Learners

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Abstract

The evolving neurobiological and psychological understanding of emotions, specifically positive emotions, provides fascinating insights into how learners' emotions can be evoked, and online learning environments can be crafted to maximize student engagement. Engaged online learners are more active, self-directed, and responsible; they persist and find academic success at higher rates. This article aims to maximize learner outcomes by combining the research and frameworks of online student engagement with the neuroscience and psychology of positive emotions. This research suggests that positive psychology interventions, which have been consistently correlated to positive organizational outcomes when similarly used in business initiatives, also apply to the online adult literacy classroom. The infusion of practical positive psychology principles and the purposeful use of positive emotions in the online setting are presented from three distinct perspectives: creating a positive culture, facilitation, and academic content.

Keywords: emotions, learning, online learning, self-directed learning, neuroscience, learner outcomes, positive psychology, adult literacy, digital learning

Learning environments in adult education are on a continuum of positive to negative emotions and experiences. Intense pride in learning and career goals sit beside genuine disinterest or disillusionment. Both ends of these outcomes are informed by past academic and life experiences, societal and family expectations, and a desire for change. The effects of positive and negative emotions and experiences have not been evaluated from the perspective of adult literacy. This does not make them any less real in their contributions to learner achievement. In fact, failure for the adult literacy learner is broader than a failed

test or a repeated course. Failure negatively influences workforce opportunities, well-being, and results in feelings of shame, humiliation, and uncertainty for the future.

Learner engagement has a pivotal role in learner satisfaction, persistence, and achievement. It is engagement that affects retention and achievement, two common challenges in adult literacy education. When the COVID-19 pandemic swept the world in 2020 and required adult literacy programs to transition to instruction online, new challenges to engagement, retention, and academic success arose. While practitioners

cited low reading levels, limited digital literacy, and fear and anxiety in the online learning environment, as reasons to avoid online learning for adult literacy learners it now seems clear that the future success for adult learning must incorporate its elements to meet the needs of continual learning and learner needs.

Positive psychology's mission is to bring awareness and development to the factors that allow individuals, groups, and communities to achieve optimal human functioning (Seligman, 2019). The evidence connecting positive psychology to satisfaction, well-being, and the achievement of organizational goals is strong across business and health care disciplines but minimal in education. While understudied, the impact of positive psychology on learner success may provide a new framework for adult literacy. This article is a theoretical review that aims to provide practical implementation strategies designed to increase learners' psychological well-being, self-efficacy, and engagement in an online adult literacy program.

Positive Psychology

Positive psychology is one of the newest and most influential branches of mainstream psychology, and there is growing scientific evidence that this approach can have a significant influence on people's lives. It explores the positive aspects of life, happiness, and well-being. The inception of positive psychology can be traced to Seligman's 1998 presidential address to the American Psychological Association. In the address, Seligman called on psychology professionals to adopt a new perspective on the value of the field: "Psychology is not just the study of weakness and damage; it is also the study of strength and virtue. Treatment is not just fixing what is broken; it is nurturing what is best within us"

(p. 1). Seligman's desire was to emphasize the core mission of psychology as one that supports people in leading purposeful, fulfilling, and productive lives. Differing from the traditional view of psychology as solely focused on curing mental illness and maladaptive states, positive psychology explores what is right with people, focuses on how people can perform at their best, and encourages individuals and groups to flourish. It has more clearly been defined as "the scientific study of what enables individuals and communities to thrive" (International Positive Psychology Association, 2019). Positive psychology is an applied science, which employs testing, measurement, and evidence to produce real-world interventions that will improve individuals' lives and the organizations and communities in which they live, work, and engage. Positive psychologists aim to progress beyond remedying weakness and damage, to explore and develop the optimal human condition.

Boniwell (2012), a prominent European positive psychology researcher and writer, proposed that the roots of positive psychology date back to ancient Greek philosophies and Eastern religions. Hinduism and Buddhism emphasize the importance of positive emotions like love, joy, kindness, and compassion, as well as concepts like mindfulness and meditation, which are also core components of Seligman's view of positive psychology. Themes within contemporary positive psychology include the good life, positive emotions, human flourishing, positive social networks, strengths and virtues, and well-being (Compton & Hoffman, 2013). Positive psychology research explores constructs such as resilience, appreciative inquiry, empowerment, gratitude, psychological capital, work engagement, supervisor and organizational support, positive teamwork and co-worker relations, and positive leadership (Fleck et al., 2013). Positive psychology refocuses psychology

as a science of human strength, with an aim to identify and foster those traits.

The concept of flourishing is derived from Aristotle's idea of *eudaimonia*, or well-being, happiness, and the highest of human good. Seligman's well-being theory ascribes to this concept, as the aim of positive psychology is to measure and expand human flourishing (Seligman, 2011). The well-being theory includes five independent elements: positive emotions, engagement, relationships, meaning, and accomplishment, which results in the often-referenced mnemonic PERMA (Seligman, 2011). To increase flourishing, one should focus on enhancing each of these five elements.

Positive psychology has been applied widely in business and health care fields to initiate positive effects on well-being and engagement. However, the reality that low-literacy adults face is often shame, disappointment, and a lack of hope and optimism (Armstrong, 2021) and suggests that similar positive psychology principles may benefit the learner. A purposeful intervention of positive psychology may help to build the confidence and hope necessary for effective adult learning. This review will explore two tenets of positive psychology, positive emotions and human strengths, which when implemented, may enhance adult online literacy education.

Positive Emotions

Affect is the umbrella term that psychologists use when referencing positive and negative feelings, emotions, and moods. Barbara Fredrickson (2004), a prominent social psychologist who has spent most of her career studying the positive emotions that develop psychological resilience and flourishing, has identified 10 positive emotions: joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love.

Fredrickson determined that positive emotions serve two critical functions: they broaden one's perspective, and they build psychological capital (i.e., the emotional reserves needed to deal with difficult situations). Fredrickson (2004) theorized that frequent experiences of positive emotions build one's capacity to approach goal achievement, increase self-efficacy, and strengthen perseverance and resiliency.

Fredrickson's initial research led to the broaden-and-build theory of positive emotions (Conway et al., 2013). According to this theory, positive emotions *broaden* one's awareness, attention, and cognition, and over time those experiences *build* one's psychological, social, emotional, and physical resources. Fredrickson (2004) proposed that positive emotions "broaden an individual's momentary thought-action repertoire," and this broadening leads to the "discovery of novel and creative actions, ideas, and social bonds, which in turn build an individual's personal resources: ranging from physical and intellectual resources to social and psychology resources" (p. 1367). The theory posits that negative emotions narrow people's thoughts and actions.

Positive emotions are both a primary element of and a consequence of positive experiences. In 2009, Fredrickson proposed an optimal well-being rate of three positive experiences to one negative experience, or a positivity ratio of 3:1. The emphasis on creating and savoring positive emotions creates an upward spiral, which contrasts with the negative spirals often associated with negativity and depression. Positive psychologists, including Fredrickson, are careful to not ignore or banish negative affect. In fact, Boniwell (2012) proposed that negative emotions can help individuals connect to deeper levels of themselves. Negative affect is a normal and expected component of human life.

Human Strengths

Positive relationships nourish the feeling of being supported and valued and relates to human nature's value of social connectedness. The relationships in life can enhance positive emotions and meaning, while also contributing to engagement and accomplishment. This section will explore the use of strengths for these purposes.

The identification, awareness, and use of personal strengths contributes to human flourishing by creating meaning and as a foundation to relationships. Biswas-Diener (2010), noted positive psychology researcher, has defined strengths as “our pre-existing patterns of thought, feeling, and behavior that are authentic, energizing, and which lead to our best performance” (p. 21). Significant scholarship has been devoted to how identification and development of character strengths connects to life satisfaction.

Strength-spotting is a valuable activity in the effective use of character strengths. Niemiec et al. (2017) defined strength-spotting as the careful, deliberate observation of the interactions and behaviors of others or the behavior and effect of one's self. Guided by a two-step process, first labeling the character strength observed and then describing how it is expressed, strength-spotting promotes a deep understanding of strengths and how they benefit individuals and environments (Niemiec & McGrath, 2019). Understanding and positioning people according to their strengths makes for both a more human-focused setting and happier individuals.

A strengths-based approach has a significant body of scholarship demonstrating its effectiveness across many disciplines. In an extensive review of the literature, Ghielen et al. (2017) discovered wide support for the claim that interventions aimed at increasing strengths, along with other

positive psychology interventions, produced significant effects on well-being and engagement in work. Shuttle and Malouff's (2019) meta-analysis of 14 studies explored whether strengths increased well-being; this analysis, in alignment with Ghielen et al. (2017), concluded that an emphasis on signature strengths significantly impacted happiness in nine studies, improved life satisfaction in seven studies, and decreased depression in seven studies. Results from both meta-analyses demonstrate the positive influence that the emphasis on strengths can have in increasing well-being.

Critiques of Positive Psychology

Positive psychology is not without critiques, the foremost being its perceived disregard of the negative experiences that individuals face in life (Niemiec et al., 2017). The use of the terms “positive” and “negative” may also be perceived as an attempt to trivialize two polar conditions of the human experience. Early critiques, like those of Held (2004) and Lazarus (2003), questioned whether positive psychology emphasized the good at the expense of the bad and separated psychology from the important work of alleviating and curing mental illness, dysfunction, and disorders of the brain. Positive psychologists have responded to such critiques, arguing that the use of “positive” and “negative” is not intended to signify two opposing states of being, but rather a continuum of human experience, with the goal of moving one closer to the positive. In addition, positive psychology's emphasis on optimal human functioning sought to repair a perceived imbalance in research and practitioners' focus on maladaptive states. Positive psychology advocates acknowledge that further research and practice will add a more comprehensive perspective to this relatively nascent subfield of psychology (Niemiec et al., 2017). Ultimately, positive psychology will continue

to adapt and develop as further scholarship and practice opportunities become available.

Evolving Understanding of the Psychology and Neuroscience of Emotion

As described above, positive psychology asserts a relationship between positive emotional states and well-being. An early prevailing thought was that if one could eliminate negative emotions, positive emotions would flourish in that space, but research has disproved this idea. Positive psychologists now view positive and negative emotions as independent (Compton & Hoffman, 2013). Today, emphasis is directly placed on the cultivation and creation of positive emotions, with an understanding that positive emotions can cultivate well-being and build upon themselves, producing an upward spiral of positivity (Fredrickson, 2013).

Psychology is not the only field to have an evolving understanding of emotion. Neuroscience's classical view of emotions viewed them as autonomic, largely unconscious behavioral or cognitive responses to significant events or objects. Early research on emotions proposed six universal emotions, characterized by facial expressions and recognized universally across cultures (Barrett, 2017). An early neurobiological perspective proposed that the amygdala, often referred to as the fear center of the brain, housed emotions. Emotions were the brain's way of alerting one to something that demanded attention. Under this classical view, emotions were considered primitive, not associated with complex cognitive functions, and unable to be overridden by conscious thought.

As neuroscience has advanced over the last two decades, an alternative non-classical theory of emotions has emerged. Barrett, considered the leading authority on the neuroscience

of emotions, devoted her career to exploring emotions. Initially, she attempted to replicate the earlier work on universal emotions; however, Barrett's (2017) research largely disproved the long-held ideas that emotions live in distinct brain structures and that humans experience a universal set of emotions. Rather, Barrett (2017) proposed that emotions are constructed in the moment, guided by core neural systems across the brain, and informed by a lifetime of experience and learning.

These findings are too preliminary to suggest a comprehensive understanding of emotions within neuroscience. Yet, advanced imaging does provide insight into how the brain processes positive and negative emotions. Machado and Cantilino's (2017) meta-analysis of 22 articles explored the neural correlates of positive emotions and found that the formation and regulation of positive emotions are associated with reduced activity in the right prefrontal cortex, as well as bilaterally in the temporoparietal cortex and the left prefrontal regions. Additionally, associations are also found between positive emotions and increased neural activity in the cingulate gyrus, interior and middle temporal gyri, amygdalae, and ventral striatum (Machado & Cantilino, 2017). Advances in neuroscience are providing insight into how the brain's neural systems process positive emotions and influence motivation, mental states, and cognitive abilities.

Online Learner Engagement in the Adult Literacy Classroom

Online learning is neither new nor novel. Research in online learning is abundant, as the modality has grown as a mainstream educational choice for adult learners. The virtual environment presents new challenges in engaging and retaining learners. Faced with mounting pressure to help

learners find academic and professional success, adult education practitioners must explore what online learning engagement and success entails.

Online learning created a paradigm shift in education, one that adult literacy had largely ignored until the COVID-19 pandemic presented conditions making it impossible to learn in face-to-face settings. Several factors challenge the effectiveness of online learning in adult literacy education. Instructors are often asked to teach online having received very little online pedagogy training. Additionally, the skills needed to be a successful, self-directed learner may prove to be more difficult for an adult with low reading levels, excessive life responsibilities, and hurdles such as limited digital literacy or lack of access to technology devices and broadband Internet. Nonetheless, the COVID-19 pandemic suspended in-person instruction, forcing adult literacy programs to proceed remotely to continue to fulfill the mission to educate and prepare learners for post-secondary education and training. This transition has presented challenges including ill-prepared instructional faculty, ill-suited course and curriculum designs, and learners unfamiliar with the modality and digital tools needed. Student engagement and achievement have often been compromised as a result.

Student Engagement

Student engagement has been defined as “the student’s psychological investment in and effort toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote” (Newmann et al., 1992, p. 12). Martin and Bolliger (2018) have emphasized that engagement “increases student satisfaction, enhances student motivation to learn, reduces the sense of isolation, and improves student performance in online courses”

(p. 205). Learner engagement is a collaborative process (Arghode et al., 2018) in which the learner invests their attention, and the instructor invests in their course design and facilitation skills. Student engagement, as a measure of learning quality, contributes to persistence, retention, and attainment of desired learning outcomes.

Online Student Engagement

The importance of student engagement is not unique to online learning, but the isolated nature of asynchronous learning from geographically separated locations requires an increased emphasis. Students’ interactions in the online learning environment are a critical predictor of persistence and learning achievements (Lafreniere et al., 2017). To be wholly engaged in the learning experience requires moving beyond engagement with academic content to include purposeful and meaningful interactions with peers and instructors.

Humans are inherently social beings. Socialization and connection in an educational setting create experiences in which learners maximize their engagement and learning. Martin and Rimm-Kaufman (2015) noted that student interactions within the online learning environment build social and emotional engagement; these relationships create a sense of community for online learners (Luo et al., 2017), leading to a higher rate of persistence. Different patterns of social interaction exist in the online learning environment, which will be elaborated on in the framework for interaction and engagement section. This is an important distinction because, as more courses are offered in an online learning environment, the aim is to create high-quality course designs and effective facilitation to maximize learner engagement levels and corresponding student success.

Emotional States and Learning

Emotions contribute to learning. Exploring the role of emotions in learning is not a new idea, but concepts such as social emotional learning, the Theory of Control-Value Theory of Achievement Emotions, and research into the neurobiology of emotions provide expanded insight into the topic. Immordino-Yang and Damasio (2007) explored the connection between emotion and cognition, presenting a foundation for understanding the emotional aspects of learning and calling for interdisciplinary collaboration of neuroscientists, psychologists, and educators. Immordino-Yang (2015) later published *Emotions, Learning, and the Brain: Exploring the Educational Implications of Affective Neuroscience* sharing a decade of research into the emotion and learning connection, aiming to revolutionize educational theory and practice.

Immordino-Yang (2015) proposed that emotions powerfully motivate learning as emotions activate neural circuitry that evolved to support basic survival instincts. As deep thinking is required for learning, she postulated an inherent connection between meaningful thinking, learning, and emotion. Leveraging the emotional facets of learning provides opportunities for meaningful learning and promotes transference of the educational experience to real-world skills and application. Immordino-Yang's work provides a foundation to further exploration of the role of emotions in learning.

Social emotional learning (SEL), also referred to in the literature as socio-emotional learning, provides a framework for understanding and developing the mindsets, attitudes, feelings, and emotions to support learning and life success. Weissberg et al. (2015) identified five core competencies of SEL: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. SEL positively impacts academic

achievement as learners develop emotional regulation (CASEL, 2020).

Positive emotions during the learning process positively correlate with learning and engagement (Perkun & Linnenbrink-Garcia, 2014). Pekrun's Control-Value Theory of Achievement Emotions posits that student's appraisal of their control over and value of a learning situation elicits an emotional reaction, which determines motivation toward learning engagement (Pekrun, 2006). Dela Rosa and Bernardo (2013) found that positive emotion of enjoyment was correlated with engagement of deep learning strategies and associated with students' adopting both mastery and performance goals toward the learning process. Research by Huang et al. (2019) supports this emphasis on positive emotions, concluding that emotions such as happiness and enjoyment result in increased interactions between learners and instructors.

Neuroscience informs the relationship between emotions and learning. Prevailing knowledge supports that emotionally charged events are memorable. A clear connection exists between the high emotional arousal of an event or experience and the memory consolidation of that event or experience, biologically explained by cortisol's release and subsequent influence on the hippocampus, where the brain stores memories (McGaugh, 2013). Learning under high stress and anxiety fosters surface learning and hinder deep learning (Chen et al., 2015) and negatively impacts memory and recall (Smeets et. al. 2008).

A Framework for Online Interactions and Engagement

The geographical separation inherent to online learning, potentially leading to social and emotional separation, challenges the trust and

personal interactions that support the learner-instructor relationship. Moore (1991) articulated an understanding of this challenge with the transactional distance theory, which aimed to explain the interactions patterns between individuals, environments (Yu et al., 2020). Transactional distance theory proposed that the perceived pedagogical distance between instructors and learners can be minimized by increasing purposeful interactions (Kyei-Blankson et al., 2016). Moore believed that organizational and instructional principles could alleviate feelings of distance, minimize communication gaps, and address challenges to learner motivation. Three distinct relationship dynamics emerged from Moore's (1993) research into effective online courses: learner-to-instructor, learner-to-learner, and learner-to-content. Each relationship influences social and emotional connections and sense of community. Each interaction type is described below.

Learner-to-Instructor

Learner-to-instructor interactions prompt higher levels of student engagement in online courses (Martin & Bolliger, 2018), spanning vital course components including expectations, feedback, grading, and participation in discussion boards. Compared to other interactions, Martin and Bolliger (2018) identified learner-to-instructor interactions as the most valued by learners.

Instructors' choices of communication can strengthen learner-to-instructor interactions. Varied communication channels increase the likelihood and richness of interactions, which decreases feelings of loneliness for the learner. An instructor's approachable and encouraging tone can also help build relationships. Personalized messages and timely feedback serve as additional communication channels. A high-quality

communication strategy ensures that learners know that there is a real person on the other side of the computer.

Learner-to-Learner

Learner-to-learner interactions occur between peers, either synchronously or asynchronously, without the instructor's direct involvement (Yu et al., 2020). Banna et al. (2015) have suggested that the inclusion of discussion boards, live chat sessions, group tasks, and peer assessments foster interactions between learners. Gunsekera et al. (2019) have found that learners who engage in peer interactions achieve learning objectives and report higher satisfaction levels. Similarly, Kyei-Blankson et al. (2016) have reported that these interactions encourage collaborative and cooperative learning, promote deep learning, and connect to higher levels of presence felt by learners. Learner-to-learner engagement enhances the sense of community, belonging, and positive relationships.

Findings from Banna et al. (2015) have indicated that learners highly value synchronous interactions with peers and instructors. Connecting visually mirrors in-person interactions and minimizes feelings of loneliness and isolation. Course elements like weekly live chats can support relationships, build trust, and minimize feelings of isolation.

Learner-to-Content

Learner interaction with content refers to a "one way process of elaborating and reflecting" on the course content, objectives, or materials (Yu et al., p. 4). The most effective learner-to-content strategies involve active learning, in which learners fully participate in the learning process. Active learning guides learners to build self-efficacy, problem-solving skills, critical and creative thinking, and confidence. Problem-based learning, applying theory to practice, and active

learning are well-researched andragogy strategies that strengthen learner-to-content interactions by requiring learners to intensively invest their effort.

Martin and Bolliger (2018) identified several learner-to-content interactions most valued by learners, including discussions structured with guiding questions, the application of course content to realistic scenarios, and the ability to interact with content in more than one format (e.g., text, video, audio, or simulations). Effectively designed discussion questions prompt learners to contribute their insights and experiences while engaging with the research-based exploration of course content. The application of course content to realistic scenarios reinforces the andragogical concept of providing a clear purpose for learning and, when appropriate, choice in the student's approach to academic work. Technology aids the instructor who seeks to enhance course content.

Weaving Positive Psychology Into Adult Literacy Online Interactions

This section explores online learning's evidence-based engagement strategies framed through positive psychology. Instructors who understand positive psychology principles and the biological and psychological underpinnings of emotion can foster a classroom environment for optimal learning. This section will be divided into the following sections: creating a positive culture, facilitation, and academic content. Each section aims to maximize the adult literacy learners' engagement and persistence with the ultimate goal of increasing learning achievement.

Positive Psychology in Creating a Positive Culture

Opportunities exist to enhance learning outcomes

within a purposeful educational culture and climate. The instructor plays a prominent role in forming positive relationships, clear communication, effective instructional practices, and fair and consistent assessment practices to create a positive educational culture. The online learning environment is new to many adult literacy learners and commonly results in feelings of anxiety and isolation; these feelings can impact learner motivation and engagement, yet instructors can create positive classroom cultures with targeted strategies. This section will explore how instructors can create a positive culture through a welcoming space with structure, messaging, introductions, and feedback.

Structure

The structure of an online course can either help or hinder the transactional distance highlighted by Moore (1991). Structural elements include design elements such as content, navigational elements, and multimedia. Structure should be clear, consistent, and easily understandable for the learner.

Designing a course structure that aligns with positive psychology principles eases the transition for learners. The use of a "Get Started Here" element minimizes ambiguity and provides a clear path for new online learners. Access to a daily monitored "Ask Your Instructor" thread demonstrates a caring approach, individualized support, and investment into learner success. Weekly overviews and summaries, either text, audio, or video formats, provide structure, keep learners on pace, and allow opportunities for questions.

Messaging

Communicating early and often helps learners understand the structure of the course, minimizing anxiety. Martin and Bolliger (2018)

concluded that the three most valued strategies from instructors were regular announcements and email reminders, addressing learners by their names in discussion forums, and the ability to post questions to the instructor in a discussion forum. These elements speak directly to minimizing transactional distance and feelings of learner isolation, making them vital course start components. Welcome announcements set the tone for the course, outline expectations, and promote relationships between instructors and learners. Creating a personalized welcome email sent individually to learners with specific “get-started” steps can be immensely beneficial in opening communication channels. Consistency between modules’ elements and weekly messaging from instructors assist learners with understanding where to focus attention each week.

Announcements and personalized messages can dually be used to convey vital course information and to motivate and encourage learners. Messages that celebrate holidays, recognize noteworthy happenings, or highlight course-related news encourage interactions beyond the course material and foster positive relationships. Many online learning management systems allow for more immediate and real-time text-like messaging. Early in the course, these elements of messaging promote a positive culture and subside learner fears and anxiety. Positivity is easily infused into announcements and messaging as tone, rhetoric, imagery, and color quickly translate to positive interactions.

Instructor Introductions

Instructor introductions provide a solid foundation for a positive culture through positive emotions. Text-based instructor introductions can use images, personal pictures, and font colors and styles to present a friendly and approachable

demeanor, but this is only one format for introductions. Video is more effective than text at communicating personality to students (Borup et al., 2012). Lomonte (2019) compared course introduction videos created in a professional studio, which were high-quality and edited to perfection, to videos created informally by the course instructor; this research found that learners preferred the informal videos, which led to more positive impressions of the faculty member. Instructors who can present themselves as approachable, friendly, and supportive will encourage positive emotions and positive relationships in the learning environment.

Feedback

Feedback also provides key interactions between learners and instructors. Innovations in learning management systems create ease in providing multiple methods of feedback, including audio and video components. A meta-analysis from Killingback (2018) revealed that alternative forms of feedback, including audio, video, podcasts, and screencasts, increased comprehension of feedback, was more personalized, and fostered a sense of belonging. Alternative feedback provides a human touch and may increase learner interest in implementing feedback. An instructor’s genuine caring nature can be employed to drive a positive approach to feedback and create a respectful classroom community.

Positive Psychology in Facilitation

Positivity is contagious; it builds social connections and nurtures deeper interpersonal connections when shared with others (Fredrickson, 2013). Facilitating learning opportunities that enhance social connections through collaboration and interactions is an important design element for effective online courses (Lister, 2014). Social connection, one’s

interpersonal and interdependent relationships, results in a sense of belonging. A distinctive advantage of an asynchronous online learning environment is the ease and regularity with which learners can interact. Kurucay and Inan (2017) reported that learners working collaboratively achieved significantly higher learning achievement than those working independently. This section will explore how instructors can infuse positivity through facilitation techniques in group introductions and discussions.

Group Introductions

The first week of the class provides a natural opportunity to designate time for group introductions, which Martin and Bolliger (2018) identified as valuable to online learners. Not only can students connect socially, but the opportunity to identify similarities builds peer support and can counter feelings of isolation. Instructors responding to each student's introduction separately begin to build trust, a necessary component of relationships. Solid relationship-building activities in the first week of a course can transition learners into productive members of future discussions.

Positive emotions are the foundation to high-quality relationships in online classrooms minimizing the social isolation felt by online learners. Traditional threaded introductions can take a more positively infused approach when learners are asked to take a strengths assessment, such as the VIA, and report results. Including a component based on character strengths serves to emphasize the uniqueness of each learner.

Innovative introduction activities could also involve multimedia and varying activities. Learner engagement research (Park & Lim, 2007; Um et al., 2012) has found that presenting multimedia learning content, such as images or videos,

maintains students' positive emotions, elicits more student attention, and increases students' sense of self-efficacy. Asking learners to include their favorite meme or motivational quote can add personalization beyond course elements. Well-designed introduction activities foster community and reinforce that high levels of engagement support learning success.

Group Discussions

Discussion activities actively engage learners in the course content but are equally beneficial in promoting social engagement and community. Social engagement presents unique challenges in the online setting, so course elements must be designed purposefully to engage learners socially and build community. Discussions can serve as a substitute for in-person social interactions, such as casually chatting before class and at breaks. These social elements are an integral part of the learning process.

Non-course related discussions can also encourage positive emotions. Informal discussion encourages learners to engage in more personal conversation. Infusing humor into discussions can enhance attention, recall, feedback, and provide humor breaks (Erdoğdu & Cakiroğlu, 2021). Humor reduces learner anxiety and stress and improve cognitive engagement by aiding understanding, facilitating problem-solving, and increasing cognitive effort. Humor also aligns with Fredrickson's positive emotions of joy and amusement and promotes interest, which is essential to sustained engagement.

The facilitation of discussions by instructors allows for the infusion of positive psychology principles. Posts can highlight exemplary thinking or analysis, encourage strengths, and promote social connectedness when learners share connecting thoughts. Addressing students by name in

discussion posts and messages provides distinction between individual and group conversations and addresses the contributions of individuals. Positive design multimedia can be implemented to add interest and positivity to discussions. Finally, high levels of instructor presence in the discussions demonstrates the instructor's investment to the course content.

Positive Psychology in Academic Content

A programmatically-designed master syllabus or standardized content may provide overarching structure to an online course and still provide flexibility for instructors to choose, create, and enhance content. Content creation provides a venue to promote positive emotions, with a special focus on joy, interest, amusement, and inspiration. Supplemental resources allow instructors to create a rich, interactive, and personalized learner experiences. This section will explore how instructors can enhance positivity through course design, multimedia, and instructor-created content.

Course Design

The study of positive instructional design is in its infancy, though early research suggests that learning material created in alignment with a positive design increases learning outcomes. Li et al. (2020) compared the results from two distinct groups, one with a neutral design and one with a positive design. While the positive design had an insignificant effect regarding students' emotions, it was positively significant to outcomes, as measured by retention and transfer tests (Li et al., 2020). The results demonstrated that the positive design group outperformed those taught from a neutral design. This finding suggests that learning is most effective in a supportive and positive environment.

Multimedia

Learning tools can also be explored from the perspective of positive psychology. As noted earlier, Martin and Bolliger (2018) identified that learners appreciate varied formats. Advances in technology allow opportunities for multimedia tools, interactive content, and immediate communication strategies. Ample opportunities exist to create and integrate educational videos, stimulations, animations, and infographics into course content and use analytics to identify success.

Park and Lim (2007) have explored the effects of visual illustrations on learning interest, achievement, and motivation in multimedia learning. Results indicated that multimedia content that includes images and videos, instead of plain text, helps maintain positive emotions, elicit attention, and increase students' sense of self-efficacy. Visual illustrations did not affect students' recall or comprehension of the material. Similarly, findings from Um et al. (2012) suggest that applying emotional design principles to learning materials may induce positive emotions and that positive emotion in multimedia-based learning facilitates cognitive processes.

Instructor-Created Content

Wide evidence exists for the effectiveness of instructor-created learning tools. Findings from Mandernach et al. (2018) have suggested that instructor-generated content increases the likelihood that students will engage at levels higher than they would with equivalent generic content from the Internet or textbook publishers. Qualitative support from the Mandernach et al. (2018) study suggests higher levels of satisfaction, engagement, and connection from the use of personalized audio lectures by faculty members. Beyond audio tools, instructor-featured videos are well-researched and have been shown to provide

significant advantages to learning achievement. Findings from Borup et al. (2012) have indicated that learners find their instructors more “real, present, and familiar” and that video interactions closely align with face-to-face instruction (p. 195). Videos can be effectively used in adult literacy learning, as the tool allows for replay to increase comprehension (Geri et al., 2020) and for interactivity elements to increase engagement (Geri et al., 2017). Instructors’ presence on screen can lead to a higher level of perceived instructor presence (Wang & Antonenko, 2017; Wang et al., 2020). Instructor-created learning tools provide connection and limit perceived transactional distance.

Conclusions and Future Research

This article explored how positive psychology may be employed to increase learners’ psychological well-being, self-efficacy, and engagement in an online adult literacy program. Taken together, the concepts of learner engagement and positive psychology may have direct applications to building psychological well-being for learners, which can aid in overcoming the myriad of challenges the adult literacy learner faces. This review has been one of the first attempts to connect positive psychology to adult literacy.

Raising awareness of the importance of positive relationships, interactions, and content in the online setting provides the field of adult literacy guidance in optimizing the learning environment by addressing the emotional component to engage deep and meaningful learning. While positive psychology is not a panacea for the retention and engagement challenges in adult literacy programs; if carefully explored and implemented, it could provide another tool for easing students’ discomfort and maximizing academic outcomes in the online classroom. Improved psychological well-being is a precursor to many adult literacy education goals such as improved academic outcomes, increased workplace success, and the successful integration of learners in society.

Future research is needed to explore how positive psychology, including positive emotions and positive relationships and interactions, can benefit adult learner engagement and achievement. A natural progression of this work would include empirical studies exploring how positive emotions affect the adult literacy learner’s achievement. Ultimately, findings could be used to address the psychological well-being, resiliency, and academic achievement of adult literacy learners.

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