

Designing for Emotion: An Action Research Approach to Enhancing Student Engagement in Communication Design

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ABSTRACT

Emotions are needed for human contact, which includes such essentials as conversation, getting folk into channels, communication design and education. Students often encounter problems from assignments requiring outstanding creativity and problem-solving skills. For many people, it can still prove challenging to have their emotional needs met; however, if they lack motivation and engagement, higher learning becomes less pleasant. Feelings which may lead to a loss of productivity in studies? Negative, such as anxiety, boredom, irritability and weariness. Educators concentrate more on conveying academic content without genuine concern for students' emotional state. This is a significant reason they need more motivation and engagement. Creating design that evoke emotions frameworks aim to do precisely this; ensuring that products and services have characteristics that raise their users' emotional levels. The result can be increased engagement. The thesis aims to explore these issues in intersectional study, given the fact that further reduced numbers of students are being enrolled in hitherto highly regarded majority-offering directorates.

Keywords: Emotions, Communication design education, Emotion-centred design, Action research methodology, Student engagement

INTRODUCTION

Extensive research findings from various disciplines support the role of emotions in human interaction and education design. Emotions can figure significantly in shaping human behaviour, decision-making, and social interactions. Emotions are a crucial aspect of effective communication media and teaching experiences. Promoting social and emotional competence is essential to maintaining healthy functioning and preventing mental illness. Hence, emotional intelligence is significant for human interaction and education. In another study, emotions were identified as influential factors operating on education campuses, influencing motivation, engagement and academic results.

Where multimedia instructional resources are concerned, emotions are part of the design and (more importantly) their deployment should be given strategic consideration to heighten the learning experience. In addition, digital education technology has been shown to have a better effect on emotional

design. One instance of this is medical and nursing education, which could greatly benefit from emotional design. For specific applied fields of study, the emotional design would create impacts on learning outcomes--the reason for thinking this outcome will have general significance for all future educational research. Emotional intelligence theory has been introduced into education and instructional design, pointing out that emotional intelligence, in turn, has shaped practices in both these areas and learning environments (Denham, Bassett and Zinsler, 2012). Further efforts must begin immediately to convey emotional competencies among future members of society who will be tomorrow's professionals. Hence, the significance of emotion in communication design education transcends individual domains such as education, health and management. Emotions shape our human experiences, decisions, and social interactions --thus, they are the foundation of effective communication and learning.

REVIEW OF PREVIOUS STUDIES ON THE INFLUENCE OF EMOTIONS ON TEACHING AND LEARNING OUTCOMES

Before the exploration goes on, an ideal influence of emotion on teaching and learning outcomes was found in previous studies. Interaction between genuine feelings and memory, defining various brain areas as functioning in emotions. This review plays a crucial role in understanding emotions' effect on teaching and learning outcomes (Arace, Prino and Scarzello, 2021) Conducted an experiment that underlines the importance of considering that as students' emotions become more reflective, self-regulation and learning outcomes improve. The direct impact of emotions induced by the emotional design of learning materials concerning learning was discovered. Their research illuminates the importance of emotional design in multimedia learning and its potential impact on teaching and learning outcomes. Their findings played a key role for emotions in self-regulation and learning outcomes, especially in effacement gains associated with teaching mathematics. The relevance of affective and social neuroscience to education (Immordino-Yang and Damásio, 2007). The paper highlights the level of impact emotions and feelings have on students' learning achievement, as well as how emotions influence teaching and learning outcomes. The visual design features of online education affect emotions. Their work shows that cheerful emotional design can help retain and improve the reading comprehension of readers. This should affect teaching and learning outcomes. Young students' personalities and classroom interactions could also improve with social involvement in their education program - Effects of Social Emotional Learning on classroom teachers will alter eventually to affect the conditions under which instruction is received and therefore trends in teaching and learning outcomes will change as well (Jennings and Greenberg, 2009). The employment of emotional design techniques in health and nursing educational technology. The paper suggests that it may be possible to use emotive design in teaching and learning outcomes in health education. The construction of emotional education programs in the school context. His article emphasises provocative research on emotional intelligence and emotional education, which is quite crucial in terms of understanding the impact of emotions on teaching and learning outcomes.

The Role of Emotions in Communication Design Education and Its Impact on Student Motivation and Engagement

When it comes to education in communication design, where feelings could play such a large part, students were more willing to learn and, more importantly, became engaged in study. Emotions play a crucial role in learning, both for students' motivation and participation in class activities, which significantly affect the learning outcome. It has been found that positive emotions broaden people's grasp of many things, including life and art, which is critically vital in communication design education (Fredrickson, 2001). At the same time, emotional influences should be carefully considered in a course design to increase engagement and long-term retention. The Control-Value Theory of Achievement Emotions highlights the importance of including the design and characteristics offered by emotional experience for students to control their learning toward improving negative or positive outcomes. Motivation is seen as a significant influence on academic engagement, with metacognitive engagement predicting academic achievement. Additionally, intrinsic motivation and positive emotion mediate the relationship between teacher engagement and students' achievement. Emotions are essential for encouraging student engagement and learning outcomes. Student intrinsic motivation will also positively affect online learning engagement, with learners' engagement in virtual classrooms as an intermediate variable.

Moreover, students' real-time engagement is driven by autonomous and controlled motivations. Autonomous motivation has a more significant effect on students' meaningful engagement. Inquiry into the impact of students' emotions and personal variables on their academic motivation and engagement, which further points out just how much emotions guide what students do with their lives, has achieved some results. Further study found that self-compassionate mindfulness in online learning significantly impacts learning behavioural engagement, with positive emotion and self-improvement motivation mediating this relationship (Chen, Lin and Lyu, 2022). Emotional engagement strongly impacts motivation and academic achievement, suggesting that emotions play a critical role in driving students' success. On the other hand, students' perceptions of self-efficacy affect their engagement from all angles, showing how emotions and motivations are fundamental to promoting student engagement (Buil, Catalán and Martínez, 2019). In addition, emotional engagement has been identified as a critical factor influencing total educational outcomes, highlighting even further how great an impact emotions have on students' learning. Therefore, in communication design education, emotions impact student engagement. Positive emotions, intrinsic motivation, and emotional engagement are the fundamental driving forces behind student learning outcomes. Understanding and leveraging the role of emotions in educational settings is vital for creating engaging, compelling learning experiences.

RESEARCH METHODOLOGY

An action research approach was used to examine the influence of evoking emotions on communication design. Action research is a partnership between

researchers and practitioners aimed at producing real-world changes. It tries to deal with practical problems while at the same time developing knowledge through the cycle process of planning, action, observation, and reflection. Questionnaires and behavioural observation were employed for data collection. These questionnaires aimed to capture the individual students' reported affective experiences in the context of communication design education. The questions could be on a Likert scale, open-ended, or a mixture of both to gather qualitative and quantitative data (as shown in Table 1). The purpose of the questionnaires was to find out students' moods during the process of learning, their levels of motivation and engagement with the material. In addition to these questionnaires, the first group's class was videotaped, and the research team took notes with an agreed set of codes. These should provide more objective evidence to analyse a given result and to explore it further. It should be noted that people's emotional states and behaviour while engaging in communication design activities can be inferred from what they do, how they move about the space and their proximity to others. Ethical considerations were a fundamental aspect of this research study. The project maintained the confidentiality and anonymity of student participants using appropriate data protection measures. The participants' informed consent was obtained, and they were free to withdraw from the study without prejudice to themselves. The research also worked to ethical guidelines and institutional protocols for safeguarding the well-being and rights of all participants. However, there are research limitations that must be acknowledged. First, this study may need to provide a complete understanding of the richness and complexity of emotions in communication design education, partly because both emotions are subjective experiences, and self-reporting has its limits. Second, the generalisability of findings may be restricted to this particular educational context or the sampled people. Future research could overcome these limitations through the use of mixed methods, instruments for emotional mastery, and increasing sample size to extend the representativeness of these findings.

Table 1. Questionnaire for determining the pre-intervention engagement score using a likert scale.

	1	2	3	4	5
Please rate your level of engagement on a scale of 1 to 5, with 1 being "Not engaged at all" and 5 being "Highly engaged," for the following statements:					
The instructional materials in our communication design class sparked my interest.					
I felt motivated to actively participate in communication design assignments and projects.					
I found the content delivered in class to be relevant and engaging.					
I felt a personal connection to the subject matter.					
I was eager to learn and explore more about communication design.					
I found the design elements and visuals used in our class materials to be appealing.					
I felt excited to come to class and engage in communication design activities.					
The teaching methods used in our communication design class fostered my engagement.					

FINDINGS AND ANALYSIS

It was found from the assessment of the students' affective experiences using 'Design and Emotion' concepts in communication design education that some interesting discoveries emerged. Through the questionnaires and behavioural observations, much data on students' emotions, engagement and motivation during their learning experience was collected, and a few highlights are listed as follows:

Positive Emotional Experiences

Most students reported that when employing 'Design and Emotion' (Ho, 2023a) elements in communication design activities, they experienced positive emotional states. As they worked on design projects, they talked about feelings like excitement, curiosity and enjoyment. Giving students anything that is emotionally appealing by design, such as lively colours and beautiful pictures, increased their happy feelings.

Increased Motivation and Engagement

Students were more engaged and motivated in communication design tasks when 'Design and Emotion' principles were used (Ho, 2023a). By adding emotional elements to the instruction materials and project briefs, students' curiosity was aroused, and their attention was held. This made them more intrinsically motivated and eager to learn.

Understanding and Connection

If students expressed feeling that the things done and they are connected with themselves (such as in pleasant surprise feelings), the emotional wholeness they experienced with design elements resulted in more emotional feeling. Thus, it was nursing their design work. This emotional connection fostered a deeper appreciation of the essence of design concepts and finished products. Furthermore, thus, more understanding and connection of emotions would lead students to put more effort into projects than before.

Emotion Regulation and Well-Being

'Design and Emotion' techniques helped students to manage their emotional state during design activities (Ho, 2023a). Students reported improved emotional management abilities, such as dealing effectively with annoyance and stress, which was beneficial for their health. When learners are exposed to supportive elements designed from a stress-reduced perspective in the learning environment, a feeling of emotional security is engendered. This, in turn, helps promote positive and productive learning experiences. While emotional communication design affects students' emotions, the way they are involved in communicating design education was demonstrated (Ho and Chau, 2016). The provision of emotionally appealing design elements not only holds benefits for teacher creativity and cooperation with students but also helps create a learning environment that is mainly positive in mood (Desmet, Xue, Xin

and Liu, 2022). Students, therefore, have the energy and determination necessary to concentrate on their tasks. However, further research is needed with a more extensive sampling unit and from several contexts.

DISCUSSION

The study results provide valuable insight into the transformative effect that emotionally designed courses can have on student participation and academic performance in communications design courses. However, applying these findings has important practical significance for the profession. The qualitative data showed that teaching communications design with emotional concepts increases student participation. Students reported that they were more interested or connected to the material; they felt closer in spirit, resulting in better motivation. This means that with the help of emotional design techniques, the students' attention can be captured, and they will have a personal sense of the subject. (All my friends here have full knowledge of the subject. In addition, the quantitative data demonstrated that 'Design and Emotion' concepts in design education significantly improved students' academic achievements (Ho, 2023a). Compared to the control group, which received instruction from both teachers of one set, the experimental group performed better overall in comprehension of material, i.e. percentages were at 90% by contrast with a pass rate for a total number awakened from 100 students of just 55%. From this, it can be seen that using emotional design elements benefits students' understanding and storage in mind for future use every term of their academic course work.

It is essential to streamline virtually every step of the communication process. Relinquishing that control is sometimes difficult. It was characterised by an emotional connection between the students and the design tasks that they were confronted with at design schools. This connection increased their comprehension of and facilitated numerous meaningful recreations. Incorporating emotionally evocative elements can create a favourable learning environment and strengthen students' cognitive and emotional input. Hence, the results from this survey can guide Communication Design educators. Engaging students in meaningful learning experiences now requires using 'Design and Emotion' concepts in design education principles and techniques to enhance affective value. In particular, design educators might consider mixing appealing design elements (such as colour, visuals, and a story being told across the whole course) into teaching materials and projects to create an exciting environment for learning (Ho, 2023a). Emotional design elements also contribute to students' socio-emotional development. Educators can help students develop emotional regulation skills, stress management methods, and all-around emotional health by incorporating 'Design and Emotion' concepts into communication design education. Taking this holistic approach informs students' academic and emotional development, ensuring a well-rounded learning experience (Ho, 2023b). The study revealed that incorporating emotion-centered design into communication design education significantly impacts student engagement levels, academic achievement, and emotional state. This is a guideline for making courses, teaching methods and

unit concepts, thus providing communication design students with greater depth in their education.

Effective Strategies for Boosting Student Motivation, Engagement, and Academic Achievement

The variety of strategies she describes can be used in various educational settings to enrich and enhance students' experience. The strategies cover all educational settings and multiple academic faculties, from which we can obtain much valuable knowledge about improving student learning experiences. Strategy of Motivational Regulation: While strategies are being put in place to increase students' power of self-control and control over effort, they must also motivate students 'interest in learning'. Strategies for Facilitating student interaction and participation in course learning, such as using screen activities, cohesion and manner recordings from lectures, and acts to promote engagement and study (Abou-Khalil, Helou, Khalifé, Chen, Majumdar and Ogata, 2021). Enthusiastic teaching methods and significant learning activities: Use a happy, vibrant teaching style to stimulate lively classroom interaction and study interest (Diaz and Woolley, 2015). Online learning requires active learning methods and a full range of activities in which students participate. Adding movement or exercise components within instructional media creates a positive atmosphere for both the performance of an act and the achievement of the task. By implementing research-backed strategies specific to particular disciplines or student populations, educators can help create a universal affection toward learning that transcends individual subjects. In some ways, these novel methods will rightly discriminate for student engagement and learning outcomes in digital learning environments. Schools that foster an inclusive environment within which people can find mutual acceptance will help increase student engagement and academic success, particularly in online programmes. Explicit instruction on instructional strategies in reading can foster student engagement and improve academic performance. The introduction of student-centred teaching methods not only helps stimulate all students' enthusiasm for learning but also removes their sense of vulnerability and significantly increases study performance. These strategies effectively promote student motivation, engagement, and academic achievement across various educational environments and disciplines. With research-based strategies such as these, an environment is created that can both nourish student success and promote it.

The finding in this study reflected that the use of Emotion-centred Design in education has several limitations and challenges, as well as many areas of potential future development. These topics are essential for integrating 'Design and Emotion' concepts into educational settings effectively (Ho, 2023b). From these references, you could also find many other valuable insights into limitations, challenges, and future directions for implementing 'Design and Emotion' concepts in design in education. The paper by Gross (2015) on Emotion Regulation's Extended Process Model has an extensive knowledge of the limitations and challenges of emotion regulation. This may

be extended into a more thorough study of obstacles in ‘Design and Emotion’ concepts in design education by applying it to educational environments (Ho, 2023a). Reported similar emotional competence and educational challenges with the participants in this study. The emotional competence of early childhood educators and its challenges. This study can offer helpful hints into the characteristics of educators implementing ‘Design and Emotion’ concepts in design education in early childhood education. Designing, implementing and evaluating were included in the emotional education programme (Diaz and Woolley, 2015) for primary school students. This study offers potential insights into the problems and limitations of introducing emotional education initiatives; it is relevant to applying ‘Design and Emotion’ principles in educational settings. The paper explores human-centred design as an approach to creating open educational resources. Such knowledge can offer many valuable directions for the future development of ‘Design and Emotion’ principles in designing educational resources and using fresh approaches in response to limitations and challenges currently facing ‘Design and Emotion’ implementation in design education (Ho, 2023a). Taking reference from the study (Ho, 2023b) that helps teachers regulate emotion in the classroom offers insight into the potential impact of emotional intelligence on learning outcomes; this study might describe future directions for combining emotional intelligence and address educational problems, thus boosting students’ engagement in learning and achievement. From this research, there could be many valuable insights into applying ‘Design and Emotion’ principles within design innovation—which even future trajectories might follow (Ho, 2023a). By referring to these papers, educators and designers will have a more extended knowledge of the limitations, challenges and potential future directions for enacting ‘Design and Emotion’ in education. This knowledge, in turn, can be used to develop more effective strategies that address challenges, outgrow limitations, and integrate ‘Design and Emotion’ principles into educational settings.

CONCLUSION

Emotions are a fundamental feature of human interaction that affects communication, motivation, and engagement. In the education of communication design, students are regularly assigned problems requiring high degrees of creative, analytic, and problem-solving skills. Learning in environments tainted with negative emotions such as boredom, fatigue, irritation, and anxiety is hindered, decreasing overall productivity. Emotions in communication design education are rarely studied, and they are further neglected to make room for curriculum or academic content, devaluing their relevance to education. As a result, motivation and engagement from students has decreased. To address this problem, academics have proposed emotion-centred design frameworks to address the emotional needs of end users. ‘Design and Emotion’ is the practice of designing products or services to improve the emotional experiences they provide end users and, in doing so, increase their allure or level of engagement (Ho, 2023a). In this study, the impact of ‘Design and Emotion’

on communication design is evaluated using an action research methodology (Ho, 2023b). This methodology explores students' affective experiences through the use of qualitative and quantitative data collection and analysis, including questionnaires, interviews, and behavioural observations that will uncover new perspectives from research about the role of emotions in students' affective experiences in communication design education and successful strategies to increase motivation and engagement of students in academic contexts. The findings and methodology of this study can bear benefits for any educators designers and researchers who are interested in creating innovative instruction that recognises and incorporates the affective needs of users. The ultimate aim of this research project is to foster the creation of a learning environment that is collaborative in nature and attuned to the diverse affective needs of students will create engagement, that will create academic outcomes ultimately in a safe and enjoyable educational setting for students. Emotions play a pivotal role in the pedagogical development of students; 'Design and Emotion' is the practice of using emotional experiences to create engagement and new academic outcomes (Ho, 2023a).

REFERENCES

- Abou-Khalil, V., Helou, S., Khalifé, E., Chen, M.-R. A., Majumdar, R. and Ogata, H. (2021) 'Emergency Online Learning in Low-Resource Settings: Effective Student Engagement Strategies', *Education Sciences*, 11(24), p. 18.
- Arace, A., Prino, L. E. and Scarzello, D. (2021) 'Emotional Competence of Early Childhood Educators and Child Socio-Emotional Wellbeing', *International Journal of Environmental Research and Public Health*, 18(7633), p. 17.
- Buil, I., Catalán, S. and Martínez, E. P. (2019) 'Engagement in Business Simulation Games: A Self-system Model of Motivational Development', *British Journal of Educational Technology*, 51(1), p. 14.
- Chen, J., Lin, G. and Lyu, Y. (2022) 'The Impact of Self-Compassionate Mindfulness on Online Learning Behavioral Engagement of International Students During COVID-19: Positive Emotion and Self-Improvement Motivation as Mediators', *Frontiers in Psychology*, 13.
- Denham, S. A., Bassett, H. H. and Zinsser, K. M. (2012) 'Early Childhood Teachers as Socializers of Young Children's Emotional Competence', *Early Childhood Education Journal*, 40, p. 6.
- Desmet, P., Xue, H., Xin, X. and Liu, W. (2022) 'Emotion Deep Dive for Designers: Seven Propositions That Operationalize Emotions in Design Innovation', 31(2022), p. 8.
- Diaz, C. M. and Woolley, T. (2015) 'Engaging Multidisciplinary First Year Students to Learn Anatomy via Stimulating Teaching and Active, Experiential Learning Approaches', *Medical Science Educator*, 25(2015), p. 10.
- Fredrickson, B. L. (2001) 'The Role of Positive Emotions in Positive Psychology: The Broaden-and-Build Theory of Positive Emotions', *American Psychologist*, 56(3), p. 9.
- Fried, L. (2011) 'Teaching Teachers About Emotion Regulation in the Classroom', *Australian Journal of Teacher Education*, 36(3).
- Gross, J. J. (2015) 'The Extended Process Model of Emotion Regulation: Elaborations, Applications, and Future Directions', *Psychological Inquiry*, 26(1), p. 8.

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- Ho, A. G. (2023a) 'Connecting Emotion with Design Learning', Korea HCI Conference, pp. 586–592.
- Ho, A. G. (2023b) *Emotion in the Design Process: Intrinsic Factors on Emotion Management for Decision-making*. CRC Press.
- Ho, A. G. and Chau, P. W. (2016) 'Understanding the Capacity of Emotion in Decision making for Designers in Design Process Management', *International Journal of Design Management & Professional Practice*, 10(4).
- Immordino-Yang, M. H. and Damásio, A. R. (2007) 'We Feel, Therefore We Learn: The Relevance of Affective and Social Neuroscience to Education', *Mind Brain and Education*, 1(1), p. 8.
- Jennings, P. A. and Greenberg, M. T. (2009) 'The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes', *Review of Educational Research*, 79(1), p. 35.
- Kim, J. T., Song, J., Ryu, H. and Ah, C. S. (2019) 'Electrochromic Infrared Light Modulation in Optical Waveguides', *Advanced Optical Materials*, 8(1), p. 1901464.
- Kim, J. W. and Myoung, J. M. (2019) 'Flexible and Transparent Electrochromic Displays With Simultaneously Implementable Subpixelated Ion Gel-Based Viologens by Multiple Patterning', *Advanced Functional Materials*, 29(13), p. 1808911.
- Lera, E. d. (2015) 'Emotion-Centered-Design (ECD) New Approach for Designing Interactions That Matter', p. 11.