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Key Factors Influencing Affective Development in Online Courses: A Comparative Case Study Analysis

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Abstract

This study examines the elements of online courses that exert the most significant affective impact on students. It extends the work of Hewitt's "Human Interaction in an Online Course: A Comparative Analysis" by employing the same survey methodology in a different online course, leading to slightly varied findings. This paper discusses both the similarities and divergences observed. In line with Bloom's taxonomy, educational objectives encompass cognitive, affective, and psychomotor domains. While online education strives to achieve these outcomes, it encounters distinct challenges in affective development due to limited teacher-student and student-student interaction. To aid educators in enhancing the affective impact of online learning, two studies were conducted to identify which aspects of online courses most significantly influence students' affective domain. The first study identified that, among eleven potential aspects, the top three contributors to affective impact were Cohort Meetings, Lectures, and Assignments, in that order. The second study found that the primary affective aspects were Assignments, Lectures, and Cohort Meetings. The consistent high ratings for Cohort Meetings (8.9 average), Assignments (8.8 average), and Lectures (8.65 average) suggest that while lectures and assignments are conventional elements of online courses, the inclusion of weekly cohort meetings—a relatively unconventional pedagogical element—may significantly enhance affective impact.

Keywords: Affective Domain, Cohort, Non-Formal Education, Online Course Design, Distance Education, Online Teaching

Introduction

As described by Bozkurt (2019), the first stage of distance education was in the 1700’s using postcards. This expanded in the 1800’s as postal systems became more efficient. In the mid-to-late 1900’s distance education entered a new phase by using radio, television and video.

The next stage of growth came with the internet. “New learning models, such as e-learning, mobile learning, and ubiquitous learning, appeared with highly rich and interactive content” in this new stage of distance education (p. 258).

During the early 2000’s distance education grew considerably with Massive Online Open Courses (MOOCs) and open universities using the internet. This spread to every institution during the 2020 COVID pandemic when it was estimated that 1.5 billion students switched to online education in 195 countries. With the internet, video conferencing, and computer-based learning management systems, distance education became accessible and affordable to people around the globe.

With the increased use of the internet to deliver education, it is appropriate to evaluate the new modes of pedagogy. Benjamin (1956), helpfully divided learning into three areas: cognitive (knowledge), affective (values, emotions, attitudes), and psycho-motor (skills). This article focuses on the educational impact of online education on the affective field.

Problem Statement

Due to the physical distance inherent in online education, there is often a reduction in teacher-student interaction, as well as student-student interaction. This lack of interaction leads to reduced cognitive and affective impact. Students suffered mentally and emotionally when they lost connection with human presence because of online courses (Al Qalhati et al., 2020). They write that “there have been cases of dissatisfaction with virtual learning environments due to the lack of engagement and poor interaction between the instructor, students, and content, which may affect how students learn online.” In contrast, students recorded higher levels of satisfaction with their courses when there were high levels of human interaction (Javed et al., 2020). He concluded that “social presence seemed to contribute the most in predicting the level of course satisfaction amongst the students.”

Reduced human interaction leads to reduced satisfaction. Reduced satisfaction leads to reduced motivation and reduced retention. Gravel (2012), found that less interaction leads to a lower retention rate. “Research on student retention reveals that lack of interaction is a key factor in a student's decision to drop out.” So reduced human interaction leads to reduced affective growth, and thus reduced retention rates.

Therefore, online educators need to determine which aspects of an online course, including human interaction, contribute most to affective growth in online higher education studies. This should increase student motivation, and retention rates in online courses.

Literature Review

The educational theories that are used as a foundation for this study are Bloom’s taxonomy on the three domains of learning, Moore’s theory on transactional distance, and Garrison, Anderson, and Archer’s theory on Community of Inquiry.

Benjamin (1956), taxonomy involves three areas of growth in the educational endeavor. First is the cognitive realm. This includes knowledge and information that can be remembered, analyzed, and synthesized. The second is the affective realm. This includes impacting the emotions, values, and attitudes of a student. The third area is the psychomotor realm. This involves learning skills and application of course content. This study focuses on what Bloom describes as the affective realm. The goal of this study is to find what aspects of online courses have the most impact on students’ affective realm - their values, emotions, and attitudes.

Moore (2018), first began evaluating the effectiveness of distance education prior to the internet - in what Bozkurt (2019), would describe at the second phase of distance education.

However, Moore continued his research into the modern era of online education and his research remains useful (Shearer and Park, 2019). He came up with the term "transactional distance" to evaluate various aspects of interaction between the teacher and student. Transactional distance refers to the perceived gaps (communication, response, psychological) between the teacher and student. He divided transactional distance into three areas: structure, which is the course design; dialogue, which is the student-teacher interaction; autonomy, which involves student choice and behavior as it relates to the course. This reduction of these perceived gaps is desirable for online education. This study sought to use and evaluate weekly, faculty-led cohort meetings as a means reduce transactional distance.

The third major pedagogical theory that applies to this study is Garrison, Anderson, and Archer's (1999), "Community of Inquiry" framework for online education. Shields (1999), states, "The 'community' in 'community of inquiry' is not defined by time or space." Thus a community can be made up of students in an online course who are separated geographically, but united by involvement in the course. The framework is broken up into three areas. The first area is the "teaching presence" which involves the teacher's organization, presentation, and interaction with the course content and students. The second area is the "cognitive presence" which involves intellectual interaction with, and processing of, the course content. The third area is "social presence" which involves interaction by the students with one another and with the teacher. Each of these elements are essential for a full learning experience for the online student. The unique aspect of this paper's studies was to include, and evaluate, weekly cohort (small group) meetings that were aimed at increasing teaching, cognitive, and social presence in online courses.

Research Purpose

There has been research showing teacher-student interaction helps students engage with online courses (Sun et al., 2022). There has also been research showing that reduced transactional distance in curriculum design, course delivery, and dialogue between faculty and students assists in a better experience for the online student (Xiao et al., 2023). However, there is a research gap in evaluating which aspects of a course provide the highest affective growth in online studies. Affective growth is rarely assessed and researched and it is rarely evaluated in online education. It is difficult to find research comparing and contrasting aspects of a course on the affective domain. Therefore this study proposed to study facets of online courses that produce affective growth with the hope of proposing an educational model.

Research questions

RQ1: Which aspects of an online course produce the most affective growth?
RQ2: Why do these aspects of an online course produce affective growth?
RQ3: What can be learned from the similarities and differences of the two surveys on affective growth
in online courses?
RQ4: Which online pedagogical model is proposed to produce the most affective growth?

Research objectives

RO1: To investigate which aspects of an online studies course produce the most affective growth
RO2: To explore reasons behind the affective growth linked with most impactful aspects in online

studies.

RO3: To evaluate the similarities and differences between the two surveys on affective growth.

RO4: To propose a model of online teaching that enhances affective growth.

Research Methodology

To fulfill these objectives, a survey was given to two groups of people following their 12-week online courses. The first division of the survey was quantitative, and the second division was qualitative. The online course was considered to have 11 sections or pedagogical aspects. Students were asked how each section or aspect impacted their affective realm. The 11 sections were: lectures, assignments, reading materials (books), cohort meetings, individual faculty-student interactions (one-on-one discussions), question-and-answer sessions, breakout rooms during lectures, chat features during lectures, faculty-student text messages, faculty-student emails, and assignment feedback (grading with comments). The survey asked, "On a scale of 0-10, rate how much your values, emotions, and attitudes (affective realm) were impacted by [aspect of class]?"A Likert scale from 1 to 10 was used for their responses. These questions were followed by a qualitative aspect of the survey where students were allowed open-ended responses to two questions. The first was: "Explain why your highest-rated interactions (see above) stimulated growth in your values, attitudes or emotions." The second was: "What aspect(s) of the course brought you the greatest sense of encouragement? Why?"

The first survey was conducted at the end of a 12-week introductory counseling course offered out of Penang, Malaysia with 48 of the 59 students studying online. Of the 48 online students, 23 participated in the survey. Those 23 students were located in 11 nations: Fiji, Grenada, Australia, USA, Nigeria, the Netherlands, St. Lucia, China, Malaysia, South Africa, the Philippines, Trinidad & Tobago, and Germany.

The second case study was conducted at the end of a 12-week course on family systems therapy. It was conducted as a hybrid course in Malaysia with 51 students. Excluding nine face-to-face students, 29 out of the remaining 42 students responded to the survey. Those 29 students were located in 14 nations: Kyrgyzstan, China, India, Burundi, Nepal, Kazakhstan, Nigeria, Grenada, Namibia, Philippines, Jordan, Mongolia, St. Lucia, and Germany.

Data Analysis

The first case study was a mixed-methods survey used with 23 students from 13 nations and is described in the article, "Human Interaction in an Online Course: A Comparative Analysis" by David Hewitt. The second case study involved a three-month course on family systems therapy, conducted as a hybrid course in Malaysia with 51 students. Excluding nine face-to-face students, 29 out of the remaining 42 students responded to the survey.

The first case study showed the top four aspects of the course that produced affective impact were Cohort Meetings (9.3 mean), Lectures (8.7 mean), Assignments (8.6 mean) and Individual Staff Interaction (8.6 mean). The second study revealed the top four affective aspects of the course were Assignments (8.9 mean), Lectures (8.6 mean), Cohort Meetings (8.5 mean), and Assignment Feedback (8.4 mean). The overlap of the highest-rated aspects was Cohort Meetings (8.9 mean), Assignments (8.8 mean), and Lectures (8.65 mean).

A thematic analysis of the first qualitative question "Explain why your highest-rated interactions stimulated growth in your values, attitudes or emotions" used ChatGPT 4o Mini.

Results showed the main themes were: 1) Impact of Lectures and Assignments; 2) Role of Cohort Meetings; 3) Feedback and Guidance.

Lectures were valued for the professional knowledge they delivered. This content delivery paired with with the structure of the assignments facilitated understanding of the subject matter. The assignments were noted for their role in encouraging personal reflection. Cohort meetings were emphasized for their assistance in understanding course content and their relational learning. Feedback from faculty via assignments and cohort meetings was valued for contributions in both academic and personal development.

A content analysis of the second qualitative question "What aspect(s) of the course brought you the greatest sense of encouragement? Why?" used ChatGPT 4o Mini. Results showed high-quality instruction, constructive feedback, practical application of therapeutic methods, supportive cohort interactions, and the personal impact of staff. The integration of professional and personal support, along with effective communication and community-building, significantly contributed to a positive and motivating learning experience. One student wrote, "I need interaction with others to learn and apply what I've heard and received from the lectures." Another responded in the survey: "The cohort made a lot of impact on my life and helped me connect to the core of the week teaching."

Finding and Conclusion

The pilot survey showed the top three most emotionally impactful aspects of the online course were the weekly cohort meetings, lectures, and assignments (immediately followed by one-on-one staff interaction). The second survey showed the top three being assignments, lectures, and cohort meetings. So, while the order of the top three were mixed, nevertheless, the trio of cohort meetings, lectures, and assignments remained ranked in the top three. These show that quality content delivery via lectures and related assignments combined with supportive faculty and student interaction provide an excellent online study environment.

Analyses of the qualitative aspects of the surveys showed similar results on the impact of cohort meetings, lectures, and assignments. Students acknowledged the professionalism of good lectures, but needed the faculty and student interaction which Community of Inquiry labels as teaching presence and social presence. One survey respondent wrote, "Interactions really play huge roles. We human beings learn by interaction so that helps me to grow."

Recommendation

Based on the survey results, it is recommended that online courses incorporate faculty-led, content-based weekly cohort meetings. While high-quality lectures and assignments are standard practice in online education, the addition of regular cohort meetings utilizing video technology can significantly enhance affective impact (Al Qalhati et al., 2020). This approach not only supports Bloom's emphasis on affective development but also addresses Moore's concept of reducing transactional distance and aligns with the Community of Inquiry's framework for creating a comprehensive learning environment.

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