“I DO BETTER, FEEL LESS STRESS AND AM HAPPIER” – A HUMANIST AND AFFECTIVE PERSPECTIVE ON STUDENT ENGAGEMENT IN AN ONLINE CLASS

ABSTRACT

Aim/Purpose
Fostering student engagement is one of the great challenges of teaching, especially in online learning environments. An educators’ assumptions and beliefs about what student engagement is and how it manifests will shape the strategies they design to engage students in learning. However, there is no agreement on the definition of concept of student engagement and it remains a vague construct.

Background
 Adopting the principles of user-centered design, the author maintains that to design learning experiences which better support student engagement it is important to gain insights into how students perceive and operationalize the concept of engagement in learning. The recent challenges of teaching effectively online prompted the author to reflect more deeply on the concept of engagement and how it might be achieved.

Methodology
In the tradition of reflective teaching, the author undertook an informal, qualitative inquiry in her classroom, administering a brief questionnaire to students in her online class. When the themes which emerged were integrated with other literature and findings from the author’s earlier classroom inquiry, some insights were gained into how students ‘operationalize’ the concept of engagement, and weight was added to the authors’ premise of the value of humanistic approaches to university teaching, the need for greater emphasis on student-teacher connection and the necessity of considering the affective domain alongside the cognitive domain in learning in higher education. The insights were brought together and visualized in a conceptual model of student engagement.

Contribution
The conceptual model presented in the present paper reflects the author’s present ‘mental model’ of student engagement in classes online and, when the opportunity arrives, in face-to-face classes as well. This mental model shapes the authors’ course design, learning activities and the delivery of the course. Although the elements of the model are not ‘new’, the model synthesizes several
related concepts necessary to a humanist approach to understanding student engagement. It is hoped that the model and discussion presented will be stimulus for further rich discussion around the nature of student engagement.

Findings

Interestingly, the affective rather than the cognitive domain framed students’ perspectives on what engagement ‘looks like to them’ and on what teachers should do to engage them.

Recommendations for Practitioners

By sharing the process through which the author arrived at this understanding of student engagement, the author has also sought to highlight three key points: the importance of including the ‘student perspectives and expectations’ against which educators can examine their own assumptions as part of the process reflective teaching practices; the usefulness of integrating theoretical and philosophical frameworks in our understandings of student engagement and how it might be nurtured, and finally the necessity of affording greater influence to humanism and the affective domain in higher education. The findings emphasize the necessity of considering the affective dimension of engagement as an essential condition for cognitive engagement and as inextricable from the cognitive dimension of engagement.

Recommendations for Researchers

The emphasis in research engagement learning and teaching is on how we (the educators) can do this better, how we can better engage students. While the student perspective is often formulated from data obtained through surveys and focus groups, researchers in learning engagement are working with their own understandings (albeit supported by empirical research). It is crucial for deeper insight to also understand the students’ conceptualization of the phenomena being researched. Bringing the principles of design thinking to bear on educational research will likely provide greater depth of insight.

Impact on Society

Empirical, formal, and structured research is undeniably essential to advancing human endeavor in any field, including learning and teaching. It is however important to recognize informal research in the form of classroom inquiry as part of teachers’ reflexive practice is also legitimate and useful to advancing understanding of complex phenomenon such as student engagement in learning through multiple perspectives and experiences.

Future Research

Further research on the nature of student engagement in different contexts and against different theoretical frameworks is warranted as is empirical investigation of the premise of the value of humanism and the affective domain in defining and measuring student engagement in higher education.

Keywords

online learning, student engagement, teaching IT, higher education, humanism, affective domain, student-teacher connection, classroom inquiry, reflexive teaching practice

INTRODUCTION

The term ‘student engagement’ is the catchphrase in higher education. Student engagement is what drives much of universities’ learning and teaching strategies and policies and the design of programs and courses. With the knowledge that student engagement is critical to learning and success, engagement is what educators strive for in their classes (Baron & Corbin, 2012; Delfino, 2019; Zepke, 2014). Student engagement in the higher education context has been problematic for a long time and despite efforts it remains an issue. However, it was the advent of technologies in education and the uptake of online and blended learning models that began to bring the issue of student engagement more strongly to the fore.
Now, with the recent pandemic-forced shift from face-to-face learning to fully online and remote learning, the issue of engagement is exacerbated (Dembereldorj, 2021). If the author’s own experiences and that of her colleagues are anything to go by, then the experience of educators forced to jump from face-to-face to online teaching during the pandemic was not easy. Many educators in this situation will most likely remember the pressure felt as they began to teach in an unfamiliar environment, usually unable to see their students, not knowing if the silence at the other end meant that students were deeply engrossed in the lesson or absent and bored. In this context, the importance of engaging students in the virtual classroom was magnified and accompanied by a sense of urgency. How to engage students in virtual classrooms continues to generate concern but it remains unresolved. It was this context that prompted the author to reflect on the question of ‘what does student engagement really mean?’ Google’s common-use definition of engagement is to “occupy or attract (someone’s interest or attention)” or “participate or become involved in” (Oxford Lexico, n.d.). These definitions capture the essence of the concept of engagement but in teaching practice, the definition of the term is less straightforward and despite a plethora of surrounding literature, student engagement remains a vague, poorly understood concept (Bond et al., 2020).

Working on the premise that increasing clarity of the concept of engagement may well assist the design of strategies that better foster student engagement, the author brought two sets of principles to bear on the problem experienced in her classroom: 1) user-centered design (an area of expertise for the author) to bear on the problem. The fundamental tenet of user-centered design is that to design for the user, it is important to first understand the user (their attributes, needs, expectations) in the context of their goals and activities. User-centered design is inherently iterative since the needs of users change and there is also great diversity among users which can never be captured perfectly. User-centered design is a usability concept that provides a mechanism for understanding the user experience (Barnum, 2011); and 2) Reflective teaching practice. Reflective practice strategies such as informal research are the cornerstone of developing effective teaching strategies and practices for all educators (Beck, 2017; Stingu, 2012). The author thus undertook a classroom inquiry activity with the intent to gain insight into students’ views on engagement and ask: What makes courses engaging for students? What do teachers do that enables/encourages students to engage? And what do students believe they do when they are engaged? The classroom inquiry uncovered some useful insights into how students might think about and experience engagement in an information systems virtual classroom and helped position student engagement in humanist teaching philosophy and the affective alongside the cognitive domain. The author encapsulates these understandings in a visual model.

While the insights gained from the classroom inquiry are valuable, the obvious limitation is that they are results obtained from small scale classroom inquiry in a specific context. The intent of the paper is not to provide a ‘solution’. It is hoped that the conceptual model assists educators conceptualize the nature of student engagement from a humanist perspective and helps to strengthen the presence of humanism and the affective domain in higher education learning and teaching (something that is mostly neglected in higher education to the detriment of student learning and experiences (Beard et al., 2007; Pierre & Oughton, 2007). The author aims to stimulate reflection and discussion and encourages educators to listen to the learner’s voice as way to inform practices and challenge assumptions.

**Understanding and Fostering Student Engagement**

Student engagement is one of the wicked problems of higher education learning and teaching. The necessity of student engagement as a condition for academic success is well described in literature and empirically supported (Maguire et al., 2017). Student engagement is an issue considered at all institutional levels, playing a role in strategic planning, policy formation and operational activities. From a strategic perspective, student engagement is important to institutional accountability since it is a valuable indicator of the quality of learning and teaching in the institution (Robinson & Hullinger, 2008).
Like all human phenomena, student engagement is inherently complex, and a plethora of factors have been found to influence it for example communication, active learning activities, interactions between students and students and staff, academic challenge, supporting environment and work integrated activities (Nguyen, 2019), home and personal factors, family factors and peer factors (Ali & Hassan, 2018), financial impact of fees and teacher student relationships (Groves et al., 2015).

Unsurprisingly, how to conceptualize, measure and promote student engagement has preoccupied educators and researchers for several decades. The many efforts to address the challenge of how to better engage students has precipitated great volumes of literature but the challenge remains (Bond et al., 2020). The emergence and subsequent proliferation of technologies in education have served to add further complexity to the issue. Much of the existing research on student engagement is in the face-to-face domain. Deeply embedded in most aspects of life, technology colors the student experience (Bond et al., 2020). It must be understood that engagement, quality of learning and better learning outcomes is a result of how technology is used not intrinsic to technology itself. However, the presence of technology ‘muddies the waters’ and there is more work to be done on better understanding the interplay of technology, student engagement and learning (Bond et al., 2020).

In online learning, the issue of engagement is most strongly brought to the fore. Especially during the recent ‘pandemically forced’ shift to online/blended learning the issue of learner engagement was magnified with concerns raised about isolation of learners, lack of engagement, and a downward trend of the student experience as many learners expressed preference for face to face rather than online learning (Walker & Koralesky, 2021). Subsequently, there is a growing sense of urgency to develop more effective approaches to fostering student engagement especially in online environments.

Efforts to develop more effective approaches for student engagement online must necessarily be guided by conceptual understanding of what student engagement is and how it manifests in students. Unfortunately, in much of the literature there is often little attention to defining what student engagement is, it is often talked about in the absence theoretical frameworks, and among what definitions do exist, there is lack of agreement (Bond et al., 2020). There is, however, agreement that the term ‘student engagement’ is vague, and that there are many meanings and understandings of the term (Ashwin & McVitty , 2015).

An examination of some of the strategies and approaches encouraged universities or used by educators to help engage students provides some insight into how the term is conceptualized. For example, at the authors’ home university, there is much emphasis on active learning. The University is investing much time and effort to infuse an active learning mindset into teaching activities and transform approaches away from traditional instructional methods to more student-centered active methods. Active learning at the university is defined as:

“… a broad range of learning and teaching strategies that are intentionally designed to engage students as active participants in their learning during face-to-face and/or online sessions or during informal study time.” (Learning Futures, 2019).

Active learning as pivotal for student engagement is a commonly held view (Hayat et al., 2017; Munna & Kalam, 2021; Venton & Pompano, 2021). Active learning is perhaps one of the most frequently identified strategies for student engagement. Another approach for raising student engagement is ‘Student as partners for increased engagement’ (Love, 2020; O’Shea et al., 2017). Although these strategies are identified as pathways to student engagement in learning, the author maintains that to fully exploit the potential of these strategies for student engagement in learning it is necessary to consider the affective domain and to acknowledge the pivotal role of the teacher and student-teacher, student-student connection has in the success of these strategies teaching (Torrisi-Steele, 2018) – a perspective further supported by the classroom inquiry reported in the present paper.
STUDENT ENGAGEMENT

There is no agreement on the definition of student engagement and the term is often vaguely used without it being defined or without a clear theoretical framework for how it is used (Bond et al., 2020). The first page of a google search for “definition of student engagement” rapidly reveals the diversity of views as to how the term is conceptualized, some examples of which are given below:

“The degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education.” (The Glossary of Education Reform, 2016)

“Engagement is a sense of connection with what you are doing or where you are: a sense of belonging.” (Stevens, et al., 2018)

“a measure of a student’s level of interaction with others, plus the quantity of involvement in and quality of effort directed toward activities that lead to persistence and completion.” (Hughes, 2021)

In the domain of online learning, the notion of engagement is especially problematic. As Kennedy (2020) observes “the term ‘engagement’ is much researched but tricky to define in the field of educational technology and online learning” (p.1). The entire literature base around what constitutes engagement in online learning is too broad to synthesize here and beyond the scope of the present paper. Three of the common perspectives teachers may have of student engagement include the extent of interaction (learner-learner, learner-teacher, learner-content) (Moore, 1989 cited in (Kennedy, 2020), degree of interactivity with technology leading to cognitive or behavioral engagement (Kennedy, 2020), and the degree by which students are discovering exploring and inquiring with classroom activities (Kennedy, 2020). Even considering just these three teacher-side conceptualizations of student engagement shows the diversity in views and the inherent complexity of the topic of engagement.

The response to the vagueness of the term is oftentimes wariness and criticism of its apparent ‘ad hoc’ use but Ashwin and McVitty (2015) propose that the vagueness and confusion surrounding the term invites reflection, introspection and exploration of related research, policies, and strategy implementations. At this juncture, the author is prompted to draw on her area of expertise – user-centered design (as it relates to the broader discipline of human computer interaction). User-centered design revolves around the principle of understanding or empathizing with user perspectives and the importance of gaining insights into users’ mental models, perceptions, and experiences. If the principles of user-centered design are extrapolated to the problem of student engagement, then the value (necessity?) of gaining insights into how students themselves experience or perceive engagement is evident. A descriptive search of literature reveals the topic of student engagement, how to foster it (e.g. (Cents-Boonstra et al., 2021; Hulme et al., 2013; Moore et al., 2014) measure it and recognize it (e.g. Kennedy, 2020; Reading, 2008) is prolific. However, there is a dearth of investigation of how students themselves perceive to be engagement and what does it look like to them when they are engaging in learning.

SOME INSIGHTS INTO STUDENTS’ PERCEPTION OF ENGAGEMENT

Students in the authors’ classes were invited to complete an online questionnaire with two open-ended questions:

Q1: What do teachers do that engage you in learning and in online courses?

Q2: Complete the sentence: When I engage in learning in my online courses, I ……

Twenty-four students provided responses from a cohort of 60 students – a response rate of 40%.
The responses for “Q1: What do teachers do that engage you in learning in online courses?” are shown as a theme map (generated using Leximancer). The responses reflect both affective and cognitive domains. Caring, understanding and availability of the teacher were important attributes for the students. Students identified a sense of fun and ‘not being too serious’ as attributes of engaging teachers, but the strongest themes were around teacher support, care and understanding of students. In the cognitive domain, students identified that teachers who ask questions, provide examples, and give clear explanations also engage them in learning.

The responses for “Q2 Complete the sentence: When I engage in learning in my online courses, I ……” (Figure 2) provide evidence that engagement for the students is tightly linked with the affective domain. The use of the word ‘feel’ was very frequently used. The connection between affective and the cognitive domains manifested as students connected positive feelings to doing academic activity ‘better’.

The reoccurring messages in the responses related to engagement being experienced as:

- Greater focus and motivation “I don’t find my mind wandering”, “I am more likely to finish tasks and look for more examples if I don’t understand”
- A sense of enjoyment and accomplishment “I don’t mind completing assignments; it doesn’t feel like a chore”
- Grit and persistence: “I don’t give up, instead I try my best”
- Achieving better grades and a reduction in stress and positive feelings “I do better. I feel better. I am happier”

Interestingly, when talking of their experience or response to experiencing engagement, the affective elements and feelings came out strongly and students explicitly linked their positive affective experiences with academically desirable behaviors such as learning independence, self-regulation, and task completion. The student responses show that students are very aware of the connection between their engagement and ‘doing better’ in their courses.

Although the questions were simple and only two, the responses students provided were rich, enabling useful insights into how they experience engagement and their perspectives on what attributes of a teacher might create conditions conducive to engagement.
Figure 2: Theme map for complete the sentence: “When I engage in learning in my online course I...”

The student responses in both questions included a strong affective element and point to humanism as a suitable frame for understanding student engagement from the perspective of students. Further insight is now facilitated by integrating the students’ responses with a discussion of other classroom inquiry conducted previously by the author alongside literature surrounding humanism and the affective domain.

A DISCUSSION OF THE ‘FINDINGS’ FROM THE PERSPECTIVE OF HUMANISM AND THE AFFECTIVE DOMAIN IN HIGHER EDUCATION

As educators, in the spirit of checking for understanding in class how often have you asked your students: “What are key points we’ve covered?”, “Anything you didn’t understand?” But how often do we ask, ‘How do you feel about today’s class?’, ‘How do you feel about … now?’ In higher education, particularly in science and technology programs, where positivist approaches tend to be status quo, it seems that learning and teaching is all about the cognitive domain. One only needs to look at the objectives and goals stated in course profiles to see that the emphasis is almost exclusively on thinking skills and cognitive processes. However, as Bloom and colleagues’ (1956) highly influential work on taxonomies of learning objectives, covered three domains - the cognitive (knowledge and mental skills such as analysis, critical thinking, recall etc.), the affective (feelings, dispositions, enjoyment, enthusiasm, motivations, attitudes etc.) and the psychomotor (physical movement, coordination etc.), but the emphasis in higher education remains firmly grounded in cognitive objectives almost to the exclusion of the other two domains. The affective domain is the most overlooked of the three domains of learning identified by Bloom and colleagues (1956). For example, at the author’s institution, faculty are required to employ Bloom’s cognitive taxonomy of objectives for setting
course objectives for both satisfying course quality requirements and program accreditation requirements. That affective domain is missing in higher education most evident in the lack of soft skills of graduates (Pierre & Oughton, 2007).

The cognitive domain is obviously inherent in teaching and learning practice and of course must be attended to. But the affective domain is also implicit to, and essential for learning (Pierre & Oughton, 2007). The affective domain is apparently highly pertinent to the discussion of learner engagement – a point emphasized by the form of students’ response to complete the statement: ‘When I am engaged in learning I…”. The responses were characterized by students’ frequent references to ‘feeling’ - ‘feel less stressed’, ‘feel motivated’, ‘feel happy’, and ‘not feel lost’.

To elaborate further on the importance of the affective domain in higher education and better understand the nature of student engagement, it is useful to position the concept of the affective in the frame of humanist philosophy. Humanism is grounded in the work of theorists such as Rogers (1969) and Freire and Dewey. Humanists espouse to the notion of holistic learning. In the learning process the affective domain is inextricable from the cognitive domain. In resonance with Maslow’s (1943) Hierarchy of Needs, safety, belonging, and esteem are fundamental to learning. Hence, learning is facilitated when learners are feeling ‘secure’, in a non-threatening, and supportive environment. And for this to occur, the student-teacher connection must be actively considered.

In a previously published article, the author makes a case for a stronger presence of humanism as a teaching philosophy in higher education, for the necessity of fostering teacher-student connection and for taking into consideration affective domain in university teaching (Torrisi-Steele, 2018). In the article, the author reported on the themes present in the responses of 75 (N=250) students to the question of “I expect that a great university teacher will…” Students identified attributes of a great university teacher as being ‘supportive and helpful in a non-judgmental way’, ‘approachable and inviting’, ‘caring, empathetic, connected’, and a ‘mentor’ (Torrisi-Steele, 2018, p. 5). The humanist element was evidently present in the responses. Although, humanism and its constituent parts is widely acknowledged as necessary to effective learning and it is strongly present in compulsory schooling, humanism and the affective domain is underemphasized in higher education learning and teaching (Atkinson, 2015; Dorji & Yangzom, 2021; Torrisi-Steele, 2018).

The lack of emphasis on humanistic approaches, the affective domain and the student-teacher connection in higher education is at odds with strategic emphasis of institutions on student engagement and on active learning, student-centered strategies (Torrisi-Steele, 2018). Little headway can be made into transforming university teaching from well-ingrained instructivist teacher-centered approaches to constructivist student-centered approaches in which students are actively learning without due consideration to the affective domain, teacher-student connection, and the encompassing humanist philosophy (Torrisi-Steele, 2018). Approaches and strategies intended to raise engagement such as active learning, student as partners, group discussion, and Socratic strategies all require students to take ‘risks’, to expose themselves and their understandings to teachers and peers is to expose themselves to potential judgement and ridicule from others. The necessity of a safe, supportive, and non-threatening environment for participating in learning is self-evident (Torrisi-Steele, 2018).

Others hold similar views to the author on the necessity of bringing humanism and the affective domain to bear more strongly on learning and teaching in higher education. For example, Naude et al. (2014) used an appreciative inquiry technique to explore the role of emotions in learning in higher education and found that an emotionally positive climate in the learning environment was conducive to personal involvement in learning and resulted in deeper and more holistic learning. They too identified the provision of a safe, non-threatening environment as essential to learning. Widyastuti et al. (2020) focus on online learning, positing when students apparently fail to comprehend concepts it is not always a simple matter of ‘cognitive competence’. Negative emotions such as anxiety or fear are potential barriers to effective learning. Beard et al. (2007) along with Maguire et al.
(2017), and Widyastuti (2020) among others, arrive at similar conclusions about the importance of humanist approaches and attending to the affective domain in learning.

**A Conceptual Model of Student Engagement**

The premise of this article is that framing student engagement within the philosophy of humanism firmly anchors engagement with the affective domain and highlights the inseparability of affective and cognitive domains in learning. Triggered by the insights gained from simple classroom inquiry into students’ perspectives on the nature of engagement, and informed by the author’s previous work alongside literature, the author’s conceptual model (visually represented in figure 1) may serve to provoke critical reflection on the nature of student engagement. It may also encourage educators to challenge the mostly cognitive-centric nature of university teaching. It may be particularly useful in technical and positivist disciplines such as IT.

![Figure 3: Author’s conceptual model of student engagement](image)

The conceptual model also serves to remind educators that the success of approaches such as active learning, student partnerships and other constructivist/socio-constructivist strategies rests on strong teacher-student relationships and non-threatening, supportive environments. The analysis of student engagement from the humanist perspective alongside the insights revealed in the classroom inquiry, precipitate three types of connections useful for fostering student engagement:

- *Connection with students* as the base building block: build rapport, share vulnerability, establish trust, acknowledge feelings and challenges, celebrate successes, provide support, show them ‘you care’, share stories, use humor, and create passion and nurture a sense of fun and enjoyment.
- *Connect with what students know (or that they think they know)* - Structure activities to give maximum opportunity to bring what students, and yourself, know to the table. Then go from there. Elaborate, construct, create, negotiate, and experience together. A useful framework for connecting with what stu-
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dents know is to the 5E's instructional model (Bybee, 2014). The instructional model using question-
ing and activity sequences to move from Engaging learners (e.g., What do you think is the problem
here? Tell me what you already know about...? ), Explore (e.g., hands on investigations), Explain
(e.g., Why did you think...), Elaborate (i.e., apply to new situations) and Evaluate (i.e., reflect on
learning). The 5E's model is an inquiry-based approach which leads students from their present expe-
riences to new learnings.

Connect each course element with other elements and with the real world - Highlight and discover conceptual re-
lationships. Alignment of assessment, concepts/content, objectives, teaching strategies and feedback.
Seek authenticity and share real stories.

CONCLUSION

Student engagement in higher education ranks among the most pursued outcomes of learning and
teaching at all organizational levels of universities. For the faculty at the coalface of learning and
teaching, raising student engagement is an ever-present goal. For those educators teaching online,
the challenge of student engagement is magnified. Teaching in technology rich environments and
online environments requires a transformation of teaching practice. Those skills and practices with
which educators are well-acquainted with and experienced in the traditional face to face classroom
may no longer be as effective in online and technology rich learning environments.

The dive into online learning during the pandemic has served to add greater emphasis and increased
urgency to tackling the challenge of how to raise student engagement. The vagueness, lack of under-
standing and many interpretations of the concept of student engagement, as troubling as it is, catal-
yzes reflection on the assumptions held about what the student engagement is, and how educators
can ‘know’ if it is happening and if it is happening, then how can educators know the quality of en-

gagement.

The conceptual model presented in the present paper represents the authors’ present ‘mental model’
of student engagement in classes online and, when the opportunity arrives, in face-to-face classes as
well. This mental model shapes the authors’ course design, learning activities, interactions with stu-
dents and the delivery of the course. The obvious limitation of the informal study discussed in the
present paper is that the work was confined to the context of one classroom, in a single course with
one instructor. Hence, generalizability cannot be claimed. However, when the work presented in this
paper is taken together with other literature the authors ‘findings’ in her own classroom resonate with
existing literature on engagement, and on the importance of affective factors in learning.

The main goal of the discussed work is that the mental model and discussion leading to the authors’
creation of the model is a stimulus for further rich discussion around the nature of student engage-
ment. By sharing the process through which the author arrived at this understanding of student en-

gagement, the author has also sought to highlight three key points: 1) the importance of including
the ‘student perspectives and expectations’ against which educators can examine their own assump-
tions as part of the process reflective teaching practices; 2) the usefulness of integrating theoretical
and philosophical frameworks in our understandings of student engagement and how it might be
nurtured, and 3) the necessity of affording greater influence to humanism and strengthening the

REFERENCES

In A. Curaj, L. Matei, R. Pricopie, J. Salm, & P. Scott (Eds.), The European higher education area (pp. 343-360).
Springer. https://doi.org/10.1007/978-3-319-20877-0_23


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