

## **International Journal of Research Publication and Reviews**

Journal homepage: www.ijrpr.com ISSN 2582-7421

# How a Student-Centered Learning Environment Helps Students Improve Themselves: A Case Study at a University in Hanoi

(1) (\*) Nguyen Thi Thanh Huong, (2) Phan Thi Thanh Tam

- (1) University of Labour and Social Affairs, Hanoi, Vietnam
- $\ensuremath{^{(*)}}$  Corresponding author: email: ngthanhhuong 1974@gmail.com
- (2) University of Labour and Social Affairs, Hanoi, Vietnam

#### ABSTRACT:

Universities are not only places for gaining academic knowledge but also environments where students can grow personally and socially. This study investigates how an open and student-centered classroom environment can support students' self-development at a university in Hanoi. A qualitative case study was conducted through semi-structured interviews with six students who had taken part in classes that encouraged open discussions and active participation. The findings revealed that students felt more respected, more confident, and more connected to their peers. These results suggest that when students are given space to express their ideas and take part in the learning process, they experience meaningful personal growth. The study emphasizes the need for teachers to build inclusive, engaging classrooms that support both learning and emotional development.

Keywords: Student-centered learning, personal development, classroom participation, inclusive teaching, active learning.

## 1. Introduction

In contemporary higher education, student development is no longer measured solely by academic performance, but also by the ability to grow emotionally, socially, and psychologically within the learning environment (Zepke, 2022). Universities are now viewed not only as places to transmit knowledge but also as dynamic spaces that shape students' self-identity, interpersonal skills, and sense of agency (Lea et al., 2023). This holistic view aligns with global trends in pedagogy that emphasize inclusive, participatory, and student-centered learning environments.

A growing body of research confirms that the psychological and social dimensions of classroom experiences significantly influence students' personal growth and educational outcomes (Chiu et al., 2021). Environments where students are respected, listened to, and encouraged to contribute to classroom discussions foster greater self-confidence, self-efficacy, and emotional well-being (Ryan & Deci, 2020). These environments contrast with traditional lecture-based settings, which often marginalize students' voices and reduce their learning to passive reception.

The concept of a participatory and inclusive classroom—where learners co-construct knowledge with their peers and instructors—has been linked to deeper engagement and stronger identity formation (Bovill, 2020). Students in such classrooms often report feeling a stronger sense of belonging and motivation, both of which are critical for resilience and long-term academic persistence (Thomas, 2021). This kind of environment is particularly valuable in transitional life stages such as university, where young adults are navigating complex personal, academic, and social development simultaneously.

In Southeast Asia, and Vietnam specifically, educational reforms have increasingly called for a shift from teacher-centered instruction to active, learner-centered pedagogies (Nguyen & Tran, 2022). However, the actual implementation of inclusive and student-driven approaches in Vietnamese university classrooms remains inconsistent. While national education policies encourage autonomy and critical thinking, cultural traditions that emphasize authority and conformity often dominate classroom practice (Nguyen et al., 2023). This creates tension between progressive pedagogical ideals and traditional instructional norms, making it essential to investigate how innovative classroom environments can influence students' self-development in practice.

This study aims to explore how participatory classroom settings—characterized by open dialogue, shared decision-making, and mutual respect—contribute to students' self-enhancement at a public university in Hanoi. By focusing on students' own experiences, the research sheds light on the ways in which classroom climate can support or hinder personal growth during higher education. This work contributes to the broader discourse on inclusive pedagogy by offering contextualized insights from Vietnam's higher education landscape.

## 2. Literature review

Constructivism is a foundational theory in education that views learning as an active and personal process, in which learners build their own understanding through interaction with their environment, prior knowledge, and social experiences. Instead of passively receiving information from instructors, students are encouraged to construct meaning by engaging in problem-solving, reflection, and dialogue (Fosnot & Perry, 2021).

There are two primary strands of constructivism that influence modern pedagogy: cognitive constructivism, based on Jean Piaget's work, and social constructivism, advanced by Lev Vygotsky. Piaget emphasized the importance of internal cognitive development through exploration and discovery, while Vygotsky highlighted the central role of social interaction and cultural tools in shaping how individuals learn (Schunk, 2022). In particular, Vygotsky's concept of the Zone of Proximal Development (ZPD) suggests that students learn best when they are supported just beyond their current abilities through guidance from more knowledgeable others—typically peers or educators.

In higher education, constructivist teaching emphasizes collaborative learning, critical thinking, and the co-construction of knowledge. This approach challenges the traditional teacher-centered model, replacing it with a student-centered model where instructors act as facilitators or guides rather than sole providers of knowledge (Windschitl et al., 2021). In such environments, students are not only expected to acquire facts but also to interpret, apply, and evaluate information through active engagement.

Modern classrooms informed by constructivist principles often adopt learning designs that promote interaction, reflection, and autonomy. These may include group discussions, project-based learning, inquiry-based learning, and reflective journaling. Such practices have been shown to improve not only academic outcomes but also students' sense of agency, resilience, and confidence in learning (Boekaerts, 2021). Furthermore, constructivist environments often align with culturally responsive pedagogy, acknowledging that students bring diverse experiences and perspectives that enrich the learning process (Gay, 2022).

In the Vietnamese university context, constructivist learning offers significant potential for fostering critical thinking and lifelong learning skills, which are emphasized in national education reforms. However, adopting this approach requires shifting from rote memorization and authoritative instruction toward a culture of inquiry, dialogue, and student empowerment (Nguyen & Phan, 2023). While this shift may face resistance due to traditional norms, research shows that students in constructivist classrooms develop greater self-awareness and ownership of their learning process—key outcomes in self-enhancement.

By situating this study within the framework of constructivist learning, we examine how participatory classroom strategies—such as dialogue, collaboration, and reflective thinking—support university students in developing their self-identity and learning autonomy in a meaningful and sustainable way.

## 3. Methodology

This study adopts a qualitative research design with a case study approach to explore how a participatory and inclusive classroom environment influences university students' self-enhancement in the context of higher education in Hanoi. A qualitative approach is appropriate for capturing rich, in-depth insights into students' personal experiences, emotions, and perceptions, which are not easily measurable through quantitative methods (Merriam & Tisdell, 2016).

## 3.1. Research Design

The case study method was chosen to investigate a specific group of students within their real classroom setting, where a participatory learning approach had been applied. Yin (2018) emphasizes that case studies are ideal for exploring complex phenomena in real-life contexts, particularly when the boundaries between the phenomenon and context are not clearly defined. This study focuses on a single course within a Faculty of Education, where the instructor intentionally adopted inclusive, student-centered strategies such as open discussion, peer collaboration, and reflective journaling.

## 3.2. Participants

The participants were undergraduate students enrolled in a Bachelor of Education program at a public university in Hanoi. A total of 27 students (16 female, 11 male) took part in the course where the inclusive classroom environment was implemented. From this group, six students were purposively selected for in-depth interviews based on their active engagement in classroom activities and willingness to reflect on their learning experiences. All participants were in their third year and had prior exposure to both traditional and participatory teaching styles, allowing for meaningful comparison.

## 3.3. Data Collection Methods

Three primary methods were used to collect data: semi-structured interviews, reflective student journals, and instructor field notes. Semi-structured interviews allowed flexibility to explore participants' unique experiences while maintaining focus on core research questions. Interviews lasted 30–45 minutes and were conducted in Vietnamese, then transcribed and translated into English for analysis. Student journals, submitted at the end of the course,

offered additional insights into participants' reflections on classroom interactions, personal growth, and self-perception. Field notes recorded by the instructor during and after each session served as contextual data to triangulate the findings.

All participants provided informed consent, and ethical approval for the study was obtained from the university's research ethics committee. Pseudonyms were assigned to protect confidentiality.

#### 3.4. Data Analysis

Data from interviews and journals were analyzed using thematic analysis as outlined by Braun and Clarke (2021). Thematic analysis was chosen for its flexibility in identifying patterns and interpreting meaning across qualitative data. The analysis followed six phases: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining themes, and producing the final report. NVivo 12 software was used to support coding and organization of data.

The trustworthiness of the findings was ensured through multiple strategies: data triangulation across sources, peer debriefing with a second researcher, and member checking by sharing summaries with participants for feedback.

## 4. Findings

The analysis of semi-structured interviews, reflective journals, and instructor observations revealed three central themes that illustrate how a participatory and inclusive classroom environment positively influenced students' self-enhancement. These themes include: (1) feeling recognized and appreciated, (2) building self-confidence in expressing opinions, and (3) developing a strong sense of classroom belonging. Each theme is elaborated below with supporting quotes and theoretical interpretation.

## 4.1. Feeling Recognized and Appreciated

A recurring theme among participants was the feeling of being recognized and appreciated during classroom interactions. Many students reported that their voices were acknowledged regardless of whether their ideas aligned with mainstream views or were fully formed. They emphasized that the act of being listened to—by both instructors and peers—was a new and empowering experience.

For example, one participant stated:

"Even when I wasn't sure about my idea, the teacher and classmates paid attention. That made me feel like I was respected and that what I say matters." (Student 04)

Another participant echoed this sentiment by highlighting how respectful feedback gave her motivation to continue speaking in class:

"At first, I hesitated because I thought my opinions weren't good enough. But the instructor nodded, responded kindly, and invited others to build on my point. I felt encouraged to continue." (Student 02)

These experiences reflect the significance of emotional validation in educational spaces. According to Zepke (2022), environments that provide students with "voice and choice" foster emotional safety, which is a key condition for deeper engagement. The acknowledgment of students' ideas—regardless of their correctness—helps cultivate a growth mindset and encourages ongoing participation (Boekaerts, 2021).

This theme was also evident in student journals, where several learners shared that they felt empowered by the instructor's approach. One journal entry read:

"For the first time, I didn't feel scared of being wrong. The teacher valued every contribution. That made me appreciate myself more." (Student 06)

This process of feeling appreciated enabled students to develop a positive academic identity, a factor strongly associated with long-term self-efficacy and motivation (Ryan & Deci, 2020).

## 4.2. Building Self-Confidence in Expressing Opinions

The second major theme was the enhancement of students' confidence in classroom communication. Many participants shared that they had previously been reluctant to speak in class due to fear of being judged, fear of mistakes, or discomfort with hierarchical teacher-student relationships. However, the participatory nature of the classroom—characterized by encouragement, dialogue, and peer interaction—gradually helped them overcome this anxiety.

One student described this transition:

"Before, I always stayed silent even if I had something to say. But in this class, we were encouraged to speak, and there was no pressure to be right. That helped me build confidence." (Student 05)

This was further supported by another student's observation:

"The teacher often said, 'There is no right or wrong here, just your perspective.' That made me believe in myself more." (Student 01)

Such statements highlight the importance of dialogic teaching, where the classroom becomes a space for mutual exploration rather than top-down transmission of knowledge. According to Freire's (2020) pedagogy of dialogue, students are more likely to develop their voices when teachers act as colearners rather than authority figures.

This sense of psychological safety was reinforced by peer interaction. Many students noted that when classmates responded constructively—even when disagreeing—they felt less isolated and more confident in presenting ideas. These interactions contributed to a community of trust and mutual respect, which research shows is crucial for sustained engagement and self-growth (Thomas, 2021).

Student journals also emphasized this development. One student wrote:

"I used to worry that my grammar or pronunciation was wrong. But after a few sessions, I started to enjoy speaking because no one laughed or criticized me. That boosted my self-confidence." (Student 12)

Thus, confidence was not developed in isolation but through structured opportunities to speak, consistent encouragement, and a judgment-free atmosphere.

## 4.3. Developing a Strong Sense of Belonging

The third key theme that emerged was students' enhanced sense of belonging within the classroom. Unlike conventional classrooms where interaction is limited and hierarchical, this learning environment emphasized equity, empathy, and collaboration. Students appreciated that everyone—regardless of academic performance or personality—had an equal opportunity to contribute.

One participant shared:

"We didn't just listen to the teacher. We listened to each other. I felt connected to my classmates because we were learning together." (Student 05)

This sense of belonging was not merely emotional but also physical. Several students noted that the classroom layout, which avoided traditional row seating in favor of circular or group arrangements, created a more inclusive and communal atmosphere. One student described:

"We sat facing each other, not the blackboard. That made me feel like I was part of the group, not just an audience." (Student 03)

Research supports these observations. Belonging is a critical predictor of academic persistence, especially in higher education settings where students often experience isolation (Hausmann et al., 2009; Thomas, 2021). The current findings suggest that inclusive spatial design, peer interaction, and teacher warmth significantly contribute to students' perceived sense of belonging.

The role of the instructor was especially important in maintaining this environment. By minimizing power distance, encouraging humor, and treating all students with equal respect, the teacher created a space where students felt "at home." In multiple journal entries, students expressed appreciation for being addressed by name, for having their questions taken seriously, and for being encouraged to express disagreement respectfully.

As one student summarized:

"The class felt like a team. Everyone mattered, and we supported each other, even in discussions where we had different views." (Student 09)

This sense of psychological and social belonging not only contributed to students' comfort but also reinforced their motivation and responsibility in the learning process.

In summary, the findings of this study demonstrate that a participatory, inclusive learning environment can significantly support students' self-enhancement in multiple ways. Feeling appreciated helped students develop positive self-concepts. Opportunities to speak and be heard contributed to greater self-confidence. And a strong sense of classroom belonging promoted emotional security and cooperative learning. These outcomes collectively show that classroom climate is a powerful lever for promoting personal growth, especially in cultural contexts where traditional hierarchies and passive learning remain dominant.

## 5. Discussion

This study investigated how an inclusive, participatory learning environment influences students' self-enhancement in the context of a university in Hanoi. The findings revealed three major impacts: students felt recognized and appreciated, developed greater self-confidence in expressing their thoughts, and cultivated a strong sense of belonging in the classroom. These results reflect broader trends in higher education that emphasize student-centered learning as a vehicle for not only academic success but also psychosocial growth (Lea et al., 2023; Zepke, 2022).

## 5.1. Recognition and the Need for Emotional Validation

The first theme—students feeling recognized and appreciated—highlights the fundamental role of emotional validation in education. When students perceive that their opinions are heard and valued, they develop a positive sense of self-worth. This aligns closely with Self-Determination Theory (Ryan & Deci, 2020), which posits that the need for relatedness (feeling connected to others) is essential for intrinsic motivation and psychological development.

In traditional Vietnamese classrooms, the teacher is often viewed as the sole authority, and students are discouraged from questioning or offering personal viewpoints (Nguyen & Phan, 2023). Within this context, the simple act of being acknowledged during classroom discussions marks a significant pedagogical shift. It empowers students to see themselves as active contributors to their own learning journey and not merely passive recipients of knowledge.

## 5.2. Confidence Through Safe Expression

The second theme—enhanced self-confidence—demonstrates the transformative power of a safe and inclusive classroom atmosphere. As students gained trust in the learning environment, they became more willing to express themselves, even when uncertain about the "correctness" of their ideas. This supports the claim by Freire (2020) that dialogical education—education grounded in mutual respect and open exchange—enables students to find their voice and engage more deeply with content and with each other.

Furthermore, when students are not penalized for making mistakes, they are more likely to take intellectual risks. This echoes findings by Boekaerts (2021), who argues that a climate of psychological safety is critical for self-regulated learning and personal growth. In this study, it was evident that as the fear of judgment decreased, students' willingness to participate increased—marking a positive cycle of growth in confidence and competence.

#### 5.3. Belonging and Identity Formation

The third key finding—the development of a sense of belonging—underscores the social nature of learning. Belonging is not merely an emotional state; it is a foundation for student engagement, resilience, and academic persistence (Thomas, 2021). In classrooms where students felt emotionally and intellectually included, they were more willing to collaborate, support peers, and take ownership of their learning. Such environments serve not only as spaces for content mastery but also as micro-communities where students can explore their identities and values.

The sense of inclusion observed in this study was enhanced by several factors: equitable participation, physical arrangements that promoted interaction, and the instructor's commitment to respectful facilitation. These design choices aligned with recommendations from inclusive pedagogy frameworks, which advocate for reducing power hierarchies and building trust among learners (Bovill, 2020).

## 5.4. Implications for Vietnamese Higher Education

The findings have important implications for Vietnamese higher education, which is currently undergoing reform efforts aimed at increasing learner autonomy, creativity, and critical thinking (MOET, 2022). While national policy supports the transition to more active pedagogies, actual classroom practice still reflects Confucian traditions that emphasize authority and conformity (Nguyen et al., 2023). This study provides empirical support for the feasibility and impact of implementing participatory teaching approaches in Vietnamese university settings.

Importantly, the results show that even small pedagogical shifts—such as giving students time to speak, acknowledging diverse viewpoints, or altering classroom layouts—can have meaningful effects on students' self-development. These changes do not require large-scale structural reform but rather a reorientation of the educator's role: from transmitter of knowledge to facilitator of growth.

In sum, this study affirms that learning environments grounded in respect, openness, and collaboration can significantly support students' psychological and emotional development. These environments help students not only learn academic content but also build confidence, explore identity, and develop skills critical for life beyond the classroom. As Vietnamese universities continue to navigate educational transformation, prioritizing inclusive, student-centered classroom practices can play a pivotal role in cultivating empowered, resilient, and reflective graduates.

## 6. Recommendations

Based on the findings and analysis of this study, several practical and research-oriented recommendations are proposed to enhance students' self-development through participatory and inclusive classroom environments in Vietnamese higher education.

## 6.1. Pedagogical Recommendations for Educators

## 1. Promote Dialogic Teaching Practices:

University instructors should actively foster dialogic learning by encouraging open-ended questions, structured discussions, and student-led exchanges. Creating space for students to express personal perspectives without fear of judgment fosters psychological safety and enhances confidence.

## 2. Redesign Classroom Dynamics and Physical Space:

Simple changes such as circular seating arrangements, group discussions, or breakout tasks can significantly improve peer interaction and reduce the formality of teacher-student relations. These small but meaningful shifts create a more inclusive and student-centered atmosphere.

## 3. Acknowledge Student Voices Consistently:

Teachers should consistently validate students' contributions, even when opinions are incomplete or developing. This does not only improve students' sense of value and belonging but also strengthens motivation and active engagement.

## 4. Provide Reflection Opportunities:

Incorporating reflective activities such as learning journals, self-assessment, and peer feedback can deepen students' metacognition and sense of self-growth. These tools allow learners to internalize and personalize the learning experience.

## 5. Receive Professional Development in Inclusive Pedagogy:

Universities should invest in training programs for instructors on inclusive teaching strategies, classroom communication, and culturally responsive pedagogy. Such capacity building will ensure that student-centered practices are understood and implemented effectively.

#### 6.2. Institutional Recommendations

#### 1. Embed Inclusivity in Curriculum and Assessment:

Curriculum design should intentionally integrate activities that promote autonomy, collaboration, and critical thinking. Assessment practices should also evolve to include formative, participatory formats such as presentations, group projects, and reflective writing.

#### 2. Encourage Cross-Disciplinary Implementation:

Although this study was conducted within an education faculty, the principles of participatory learning are transferable to other disciplines. Universities should promote pedagogical experimentation across faculties and share best practices institution-wide.

#### 3. Build Support Systems for Student Belonging:

Institutional strategies—such as mentoring, peer-learning communities, and classroom norms co-created with students—can enhance emotional connection and reduce alienation, particularly for first-year or marginalized students.

#### 6.3. Recommendations for Future Research

#### 1. Comparative Studies Across Contexts:

Future research could compare the impact of participatory classroom environments across private and public universities, rural vs. urban campuses, or different academic disciplines in Vietnam.

## 2. Longitudinal Studies on Self-Development:

A longitudinal approach would help track the sustained impact of inclusive learning environments on students' identity, confidence, and career preparedness over time.

## 3. Mixed-Methods Validation:

While this study used a qualitative design, follow-up research using quantitative or mixed-methods approaches could provide generalizable evidence on the relationship between classroom environment and self-enhancement.

## 4. Investigation of Instructor Beliefs and Barriers:

Further exploration is needed into how educators perceive participatory learning and what challenges they face in implementing it. Such insight could inform more targeted professional development and policy reform.

## 7. Conclusion

This study set out to explore how a participatory and inclusive learning environment contributes to students' self-enhancement within a Vietnamese university context. Through in-depth interviews, reflective journals, and instructor observations, the research uncovered that students who experienced respectful classroom dialogue, equitable participation, and supportive feedback developed a stronger sense of self-worth, improved confidence in expressing ideas, and a deeper sense of belonging to the learning community.

The findings affirm that learning is not merely a cognitive process but also a deeply social and emotional experience. When students are provided with an environment that values their perspectives and encourages active engagement, they begin to see themselves not just as recipients of knowledge but as agents in their own academic and personal development. This aligns with global pedagogical frameworks that advocate for learner-centered approaches, and it resonates strongly within the evolving landscape of Vietnamese higher education.

Importantly, the study offers evidence that even within a context still shaped by hierarchical traditions, small but intentional changes in classroom dynamics—such as open dialogue, inclusive facilitation, and reflective practices—can significantly affect students' motivation, emotional growth, and self-identity.

From a broader perspective, this research contributes to the growing literature on inclusive pedagogy and self-determined learning in Southeast Asia. It provides actionable insights for educators, institutional leaders, and policymakers who are committed to creating learning spaces that not only transmit knowledge but also nurture resilient, reflective, and empowered graduates.

As Vietnam's higher education system continues to pursue innovation and global integration, prioritizing student development as a holistic process—one that includes emotional, social, and cognitive dimensions—should be central to any pedagogical reform. Creating classrooms where students feel heard, safe, and respected is not only good practice—it is essential for building a generation of learners equipped to lead with confidence and compassion in an increasingly complex world.

#### References

Boekaerts, M. (2021). Motivation and self-regulated learning: Bridging the gap between theory and practice. *Educational Psychologist*, 56(3), 165–180. https://doi.org/10.1080/00461520.2021.1896338

Bovill, C. (2020). Co-creation in learning and teaching: The case for a whole-class approach in higher education. *Higher Education*, 79(6), 1023–1037. https://doi.org/10.1007/s10734-019-00453-w

Braun, V., & Clarke, V. (2021). Thematic Analysis: A Practical Guide. Sage Publications.

Chiu, M. M., Lin, T. J., & Wang, Z. (2021). Classroom climate and student engagement: The role of teacher support and student autonomy. *Learning and Instruction*, 76, 101491. https://doi.org/10.1016/j.learninstruc.2021.101491

Fosnot, C. T., & Perry, R. S. (2021). Constructivism: A psychological theory of learning. In C. T. Fosnot (Ed.), *Constructivism: Theory, Perspectives, and Practice* (3rd ed., pp. 8–33). Teachers College Press.

Freire, P. (2020). Pedagogy of the Oppressed (50th Anniversary Ed.). Bloomsbury Publishing.

Gay, G. (2022). Culturally Responsive Teaching: Theory, Research, and Practice (3rd ed.). New York: Teachers College Press.

Hausmann, L. R., Schofield, J. W., & Woods, R. L. (2009). Sense of belonging as a predictor of intentions to persist among African American and White first-year college students. *Research in Higher Education*, 50(7), 649–669. https://doi.org/10.1007/s11162-009-9137-8

Lea, M. R., Stephenson, L., & Stewart, R. (2023). Student voice and inclusive teaching in university classrooms. *Teaching in Higher Education*, 28(3), 367–384. https://doi.org/10.1080/13562517.2022.2054299

Merriam, S. B., & Tisdell, E. J. (2016). Qualitative Research: A Guide to Design and Implementation (4th ed.). Jossey-Bass.

MOET (Ministry of Education and Training). (2022). Vietnam Higher Education Reform Strategy 2021–2030.

Nguyen, D. M., Phan, H. T., & Le, T. H. (2023). Rethinking classroom culture in Vietnamese universities: Between tradition and transformation. *International Journal of Educational Development*, 95, 102697. https://doi.org/10.1016/j.ijedudev.2023.102697

Nguyen, T. H., & Phan, H. T. (2023). Transforming Vietnamese higher education through constructivist pedagogy: Challenges and opportunities. *Vietnam Journal of Education Studies*, 4(2), 87–101.

Nguyen, T. M. H., & Tran, L. T. (2022). Active learning in Vietnamese higher education: Possibilities and challenges. *Asia Pacific Journal of Education*, 42(2), 209–224. https://doi.org/10.1080/02188791.2021.1917589

Ryan, R. M., & Deci, E. L. (2020). Intrinsic Motivation and Self-Determination in Human Behavior (2nd ed.). New York: Springer.

Ryan, R. M., & Deci, E. L. (2020). Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness. Guilford Press.

Schunk, D. H. (2022). Learning Theories: An Educational Perspective (8th ed.). Boston: Pearson Education.

Thomas, L. (2021). Belonging and engagement in higher education: Reflections from research and practice. *Student Success*, 12(3), 1–11. https://doi.org/10.5204/ssj.1764

Windschitl, M., Thompson, J., & Braaten, M. (2021). Ambitious science teaching: A constructivist approach to equity and rigor in the classroom. *Harvard Education Press*.

Yin, R. K. (2018). Case Study Research and Applications: Design and Methods (6th ed.). Sage Publications.

Zepke, N. (2022). Student engagement and the ethics of inclusion in tertiary education. *Educational Philosophy and Theory*, 54(4), 355–366. https://doi.org/10.1080/00131857.2020.1856843