



## Analysis of Transformational Teaching as a Philosophical Foundation for Effective Classrooms

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### ABSTRACT

Nowadays, many classrooms are content-based and, therefore, disadvantage students from gaining lifelong skills that could support them in their future endeavours. This study proposed transformational teaching as a veritable strategy for effective classrooms where teaching and learning are taken beyond content delivery. This theory enables teachers/instructors/lecturers to promote expressive change that could lead to life-changing experiences among students. The study answers the following question: How can transformational teaching be presented as a stimulative teaching strategy for effective classrooms. The study is located within the transformative paradigm and designed with concept analysis, where the principles of transformational teaching are conceptualised and analysed using thematic analysis. The study was implemented by exploring the theory, its assumptions, and the connections between the theory and classroom activities. The study argues that when effectively implemented in the classrooms, transformational teaching will enhance students' lifelong learning experiences and contribute to a productive society. The study further recommends that teachers and students adopt transformational principles/strategies in curriculum facilitation (in the teaching and learning activities).

### KEYWORDS

Transformational teaching; effective classroom; critical thinking; student collaboration; holistic development.

## INTRODUCTION

The traditional teaching paradigm is content-based and could be regarded as a practice rooted in a philosophy that encourages students to learn by memorising, listening, and regurgitating correct answers (McCurry & Martins, 2010; Meguid & Collins, 2017). In this paradigm, teachers are expected to lecture or engage in direct instruction where they interact with learners by presenting information (Balliu, 2017). This approach is considered unproductive and overbearing (Milenković, & Dimitrijević, 2019). Though many instructional and learning styles have emerged, among which is collaborative, experiential, problem-based and problem-posing teaching and learning, among others (Forbes et al., 2001; Laal et al., 2014; Rosli et al., 2014), there have been arguments that teaching loses its value when pressure is placed on lecture method (Covill, 2011). Here, the instructional style means a teaching style that regards students as the receiver and not as the co-constructor of knowledge. According to Klassen and Tze (2014), teaching is efficacious when students' learning is at the core of improving the students' social, emotional, and academic life. In this context, any teaching and learning process that leads to students' improvement, proficiency and efficacy could be framed as "transformation." This is consistent with Quillinan et al.'s (2019) definition that transformative teaching addresses different components of the education process such as structure, content, and ecological factors that affect how students learn and subsequently transform their lives outside the four walls of classrooms. One can then argue that teaching and learning is not solely classroom activity but an intertwined process involving students' social constructions of knowledge, dispositions, and actions for positivism. Teaching should be structured to address the immediate students' needs, such as academic achievement and a lifelong sticker that enables them to contribute meaningfully to society and themselves after their education. Our argument is also consistent with the postulation that a transformative classroom is where teachers build students' understanding of concepts to become independent in their learning as well as promote critical thinking by exploring different perspectives of knowing (Slavich & Zimbardo, 2012)

Hence, one of the practical ways to ensure an effective classroom is when teachers encourage student inquiry-based learning by developing research projects, collaborative work and providing opportunities for students to examine issues from several viewpoints (Rau et al., 2017). In a similar perspective but with a different focus, Jackson et al. (2013) posit transformative classrooms as a teaching and learning environment full of student engagement and interactivity with peers and teachers. Based on these perspectives, one could argue that a transformative classroom leads to a constructive education that creates an atmosphere for effective learning where every student feels safe and comfortable participating in the learning without risks, fear of judgement, or consequence. It promotes a welcoming school environment with a friendly face and quality reception for anyone who walks through the door, including students and the general public. This is not far from the argument of Southern (2007) that transformative teaching and learning involve establishing student-teacher relationships and a shared knowledge production process to promote students' holistic development. Against this,

the literature confirms that many classrooms today are laced with a moribund teaching and learning system where students only study to pass and jettison the lifelong actions embedded in knowledge construction and development. The findings of Stephen and William (2021) indicated that students face classroom challenges: student anxiety, distrust in prior knowledge, and misconceptions that hinder an ineffective transfer and construction of knowledge. Research findings also confirm that classrooms are faced with challenges such as lack of teamwork, lack of knowledge retention, and power dynamics among students (Barrett & Feng, 2021; Marasi, 2019; Morrow et al., 2013).

Apart from the literature, our personal experiences also showed that the outcome of major classroom activities, teaching and learning in primary, secondary and higher education classrooms, is not effective. This argument could be located within the fact that many graduates are not innovative and creative. They lack critical thinking skills, which prevents them from contributing and solving societal and personal problems. It keeps many graduates looking for jobs when they are supposed to think outside the box and become employers of labour, rather than relying on the government to provide jobs for them. This also confirms Adeyemo et al.'s (2010) argument that the majority of unemployed graduates are half-baked and not adequately equipped for the job market. Inferring from this argument, we believe that classroom processes at all levels of education should be structured in such a way to enhance students' immediate academic performance and inculcate life-changing skills that could make them self-reliant, participate in the knowledge economy and contribute immensely to societal development. Therefore, to ensure an effective and/or productive classroom, the place of transformational teaching is inevitable, which is the major focus of this theoretical paper. Accordingly, this article derives its argument from transformational teaching as a teaching philosophy suitable for a productive classroom guided by the following question.

### **Research Questions**

Based on the above problem, the following research question was raised to guide the study:

- What kinds of transformational techniques are applicable to support effective classroom teaching?
- How can transformational teaching be implemented to ensure effective classrooms towards students' wholistic development?

### **METHODOLOGY**

This study is lensed and guided by the transformative paradigm to maintain the quest for transformation in classrooms. It is appropriate to lens the study because it is a research world view knowledge and the process of knowledge as social construction shaped by individualism, peoples' characters, and community applications (Frey, 2018). This is consistent with Jackson et al. (2018) argument that transformative paradigm is a research framework that focuses on the experiences of marginalised groups, examines power differences that have resulted in marginalisation, and links study findings to action intended to alleviate it. This paradigm is also

relevant to guide the study because it aligns with the purpose of education as Ukpokodu (2009) presented as an instrument to empower students to view the social world from diverse perspectives, allowing them to challenge and change the status quo as agents of change. This is appropriate since the eventual aim of schooling is to promote critical thinking and informed active citizens. Therefore, this paradigm informs our argument and theoretical analysis towards classroom transformation. The principles of the transformative paradigm were used to rationalise the beauties of transformational teaching to ensure effective classrooms that promote lifelong learning among students.

In order to make sense of the paradigm, conceptual analysis was adopted as a design for the study. This is needed because the study deals with concepts found within the principle of transformational teaching. Conceptual analysis is a method used to determine the precise meaning of concepts, linguistic expressions, formal languages etc. (Novaes, 2012), which involves clarifying the conceptual structure and identifying ambiguities in existing theories or claims (Kendler & Neale, 2010). Based on this, we argue that conceptual analysis is a philosophical technique for resolving genuine problems that arise with attempts to analyse concepts. This form of analysis assists us in conceptualising and presenting the assumptions of transformational teaching as a classroom process capable of promoting effective and transformative classrooms. By doing this, we also engaged thematic analysis to enable us to present our argument in themes, and this is consistent with the argument that thematic analysis provides avenues for the researcher to break down texts into themes to ensure clarity of ideas (Terry et al., 2017). This was done by presenting the assumptions alongside their implication for effective classroom thematically. Below is the presentation of the theory.

### **PRESENTATION OF THEORY: TRANSFORMATIONAL TEACHING**

Transformational teaching as an instructional/educational philosophy was first conceptualised and promulgated by Slavich (2005) within the belief that teachers/instructors/lecturers, or whoever is in charge of knowledge construction, development and production, should promote meaningful change in students' lives. Hence, transformational teaching is an instructional/educational process that accommodates a change among the classroom stakeholders such as students and teachers. The idea behind this early version was to supplement individual study and personal growth by utilising group-based activities that involved applying key course concepts while reflecting on the process (Slavich & Zimbardo, 2012). That is, teachers, in this sense, are powerful, who are meant to team up and ensure collaboration among students and with their teachers/lecturers/instructors towards holistic student development. This is in agreement with an argument that transformational teaching empowers teachers to assume the position to facilitate the acquisition of key course knowledge among students by promoting students' whole development towards learning (Lee & Lee, 2018). This is perhaps what informed the definition of Slavich and Zimbardo (2012, p.8) that "transformational teaching is the expressed or unexpressed goal to increase students' mastery

of key course knowledge while transforming students' learning-related attitudes, values, beliefs, and skills". In the same vein, transformational teaching entails demonstrating actions that empower and inspire students, and transcend teachers' own self-interests to provide them with the confidence to achieve higher levels of functioning (Morton et al., 2010). This argument confirms the finding that the transformational teaching approach is associated with effective teaching (Tahir, 2018). Thus, it further justified that an effective classroom could be achieved within the principles of the transformational classroom process.

This style focuses not only on the specific subject areas and builds a foundation of learning based on non-cognitive factors but also on the whole person, such as character development, goal setting, and self-motivation (Barzegar et al., 2020). Transformational teaching includes elements such as behaviours, knowledge base, skills, and the environment, including physical and spiritual components. In implementing transformational teaching, one can argue that students are given a chance to learn from the questions or topics of interest that arise from their experiences in everyday life. In this way, transformational teachers try to engage students by providing different opportunities for learning inside and outside of the classroom (Jones, 2009). One can then argue that a transformational teacher makes learning fun by allowing learners more autonomy over self-directed projects of study because it is more student-centred learning rather than teacher-oriented, which allows students to initiate their own inquiries. This hands-on approach results in transformational learning that benefits all learners by boosting motivation, resulting in positive attitudes towards learning (Mason, 2018; Fazio-Griffith & Ballard, 2016). To achieve the kind of change transformational teaching aims for, teachers need to be transformational by becoming sensitive, empathetic and respectful as features/characteristics of transformational teaching to their students. This will increase the feelings of exhilaration and productive learning experiences (Kyte, 2016).

From the above theoretical presentation, one could conclude that transformational teaching involves and focuses more than just on content delivery. Instead, it is transformative by making students co-producers of knowledge, become critical in their daily lives, and create a kind of goal setting and reflective thinking. This is possible because transformation in the classroom includes content (subject matter), process (teaching and learning styles) and product (outcomes of teaching and learning). However, we can argue that transformative teaching emphasises the process that includes classroom interaction and the product, which can be used to determine (judge) transformation. Therefore, using deductive reasoning of the analysis presented above, one can infer that transformative teaching has assumptions, which are critical thinking skills collaboration among students, epitomising student-teacher academic relations and forecasting the students' holistic development. All these four cardinal principles could be argued as attributes of an effective or transformative classroom. As addressed below within the theoretical assumption framing, the following section addresses the four assumptions of transformational teaching.

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## THE THEORETICAL ASSUMPTIONS

This section discusses the four assumptions of transformational teaching: critical thinking skills, collaboration among students, student-teacher relationships, and holistic development of students.

### **Critical thinking skills**

This is one of the dividends that transformational teaching strategy and/or philosophy brings to the classroom. This is because transformational teaching allowed reflective experiences and shared knowledge production processes in the quest for knowledge generation. However, critical thinking means having good judgment about what you accept as fact and what you discard. That is, it is a process that evaluates the facts first before making a judgement or drawing any conclusions. This is very critical in the classroom and a skill that is important for self-development with an open-minded way of considering issues and arriving at conclusions (Ordem, 2017). According to Von Colln-Appling and Giuliano (2017), critical thinking is very important since it encourages sound decision-making by analysing data, relevant facts, opinions, or viewpoints within a given context. In this viewpoint, Duchscher (1999) argued that possession of critical thinking skills helps to see the relevance of information, good judgement of reliability of sources, logical validity of arguments and relevance of conclusion. Based on this, we argued that critical thinking skills are about using a good sense of judgement in reasoning to examine claims made through evaluating evidence into account of different lenses or perspectives before coming up with an argument or conclusion. This is one of the central ideas of transformative teaching as presented above.

### **Collaboration among students**

Within the domain presentation of transformational teaching, one can argue that it encourages collaboration and cooperativeness of students towards generating new knowledge. Not only among students, but it also allows students and teachers to interact or pool themselves for the purpose of an effective classroom. Collaboration among students could be defined as sharing ideas and information for learning or instruction purposes (Azlina, 2010; Razmerita & Kirchner, 2014). Collaborative activities can take many different forms; it could simply be talking to someone about a specific topic (Harris, (1992), can also entail pair work, group work, team learning (Kraut et al., 1988; Lai, 2011a), problem-solving (Pulgar et al., 2020) among others. Collaborative activities facilitate engagement among the members of the group while encouraging them to become active participants by exploring new concepts together (Salaber, 2014). In the case of the classroom, it allows students to share their knowledge with each other, which enhances learning and unity of purpose (Barhoumi, 2015). Collaboration in the classroom is one of the cardinal points of transformational teaching philosophy.

### **Student-teacher relationships**

From the theoretical presentation, we also deduced the importance of student-teacher relationships as one of the principles that could be used to implement transformational teaching

in classrooms. These student-teacher relationships can be seen as one of the most important factors in student success. If student-teacher relationships have not been established within the school, then teachers will continue to struggle with improving educational outcomes for children they cannot build a strong student-teacher relationship with. However, the student-teacher relationship refers to how well students feel about themselves, the abilities of their teachers and the way they teach (McGrath & Van Bergen, 2015). Student-teacher relationships are significant to student success because it develops students emotionally, behaviourally, socially and academically (McGrath & Van Bergen, 2015; Murray & Zvoch, 2011). Hence, student-teacher relationships were deduced as one of the four cardinal principles of transformative teaching.

### **Holistic development of students**

From the above theoretical presentation, we deduced that transformational teaching could develop students to acquire skills needed in their world of work. It builds students towards making a significant contribution to themselves and the society they find themselves in. This is one of the goals of education in every nation, and it is consistent with the recommendation that education empowers citizens to contribute their quota to nation-building and sustainable development (Bantwini & Letseka, 2016; Howe & Covell, 2005). Transformational teaching is targeted towards making students useful to themselves and their society.

### **ANALYSIS OF THE ASSUMPTIONS AND THEIR IMPLICATIONS FOR EFFECTIVE CLASSROOM**

This section discusses the assumptions related to classroom transformation, which is synonymous with effective classrooms in this study. This is done under the following sub-headings: critical thinking skills and effective classrooms, collaboration among students and effective classrooms, student-teacher relationships and effective classrooms, holistic development of students and effective classrooms.

#### **Critical thinking skills and effective classrooms**

In today's classroom, most activities do not explicitly teach students to think critically; they merely provide students with information without an iota of transformation or meeting the expected change in students (Allamnakhrah, 2013). This means that even if teachers use materials that require critical thinking skills, it is still up to each student to apply those skills during the learning process. Critical thinking can be developed through active learning processes such as discussion and debate, which are still within the purview of transformational teaching (Healey, 2012). Transformational teaching helps promote critical thinking because students are made to discuss ideas and the reasons for those ideas with themselves or in groups before they can be accepted as a part of the whole (Johnson-Bailey & Alfred, 2006; Slavich & Zimbardo, 2012). This idea is practically not based on specific content so it can be taught within any subject area. Students are more likely to engage in critical thinking if their teachers discuss how what they are being taught relates to larger ideas and real-world applications. Fong et al. (2017) and Lai (2011b) confirm that critical thinkers usually achieve greatly in class and are more inquisitive

in solving problems, with a recommendation that college students should cultivate critical thinking skills. From this, we conveniently argue that transformational teaching promotes critical thinking among students, which subsequently enhances effective or transformative classrooms.

### **Collaboration among students and effective classrooms**

Collaboration among students, which could be likened to a collaborative classroom as one of the undersides of transformational teaching, is significant to the effective classroom. Evidence has shown that collaboration among students in classrooms positively affects students and enhances their academic engagement (Holland & Muilenburg, 2011). Similarly, cooperative groups (within collaboration) have a beneficial impact on student learning and promote socio-emotional abilities useful for effective functioning and integration in today's society (Loes, 2022). Another study found that teachers rated classrooms with higher student-to-student interaction more positively than those with lower levels of student-to-student interaction (Alghasab et al., 2019). Classrooms with high levels of student collaboration also had children who reported fewer feelings of isolation and loneliness than did classmates in less interactive classrooms (Elmer et al., 2020). Furthermore, classrooms with high levels of collaboration were also rated more positively by teachers than classrooms with low levels of student-to-student interaction (Fennick & Liddy, 2001; Veenman et al., 2000). Based on this, we can argue that a classroom that encourages students to work collaboratively is essential for all the reasons stated above; however, it also allows children to develop friendships and improve their social skills like following instructions, respecting others' opinions, taking turns speaking out intelligently without interruption or ridicule, taking leadership roles within the group, encouraging other members in the group, and coping with problems when they arise among the team. With this, it is not an exaggeration to conclude that collaborative teaching is transformational and essential for an effective classroom.

### **Student-teacher relationships and effective classrooms**

As one of the assumptions of transformational teaching, student-teacher relationships are one of the factors of a productive classroom. This is evidenced in the fact that many studies have identified student-teacher relationships as one factor that can affect students' performance and behaviour inside and outside the classroom (Sointu et al., 2017). Student-teacher relationships are considered to be "a type of interpersonal relationship between the students and their teachers that involves professional caring, trust, respect, and shared responsibilities (Davis, 2003). This, as preached by transformational teaching, in an effective classroom, teachers must establish positive relationships with students for improved learning abilities. In addition, several researchers have advocated the influence of school climate, who believe this will help create harmony among educators and pupils. For example, Adebisi et al. (2019) advocate a caring approach that will ensure safety for both teachers and students as one of the major factors contributing to a positive learning experience.

According to Witherspoon (2011), the quality of the student-teacher relationship is of relative importance to students' school and college success thus, it has long-term effects on their quality of life. Student-teacher relationships provide a foundation for academic excellence. Both teacher and pupil must establish trust, respect, encouragement, and responsibility to foster an environment that enables academic eminence (Al Nasser et al., 2014; Williams & Williams, 2011). Researches also show that effective classroom climates in the form of top-down classroom relationships are associated with higher levels of state self-esteem (Walker & Hoover-Dempsey, 2013). Additionally, the influence of the quality of student-teacher relationships can also impact student behaviours. For example, teachers who establish more friendly relationships reduce students' anger levels, which results from inappropriate behaviour in schools (Decker et al., 2007). Based on this, it is not out of place to believe that classroom activities laced within the purview of classroom relationships are transformational.

### **Holistic development of students and effective classrooms**

The above assumptions discovered that transformational teaching develops students holistically and prepares them ahead of academic endeavours. Holistic development is an educational philosophy that views the student as a whole person with individual strengths, talents and interests that support students' personal growth in their academic learning (Braskamp, 2009). It also encourages students to be actively involved and aware of the world around them (Lovat et al., 2010). This kind of educational process values experiences over formal instruction and emphasises social-emotional, physical and spiritual well-being as part of the educational process (Awartani et al., 2008). This is inconsistent with Castillo et al. (2020) that transformational teaching explores students' experiences in the teaching process to enable them to relate practical life to theoretical life. Therefore, holistic classrooms engage students towards developing themselves for the future. We, therefore, argue that students who are developed holistically will possess all the criteria needed to survive in the world of work after their education. We can then say that any process that develops students is transformational and will positively affect the lives and the future of the students, which could also be targeted effective classroom.

### **CONCLUSION AND RECOMMENDATIONS**

This exploration has proclaimed the beauty of transformational teaching as a correlate to an effective classroom. The two objectives were fulfilled by presenting the theory and its assumptions alongside their relationships with effective classrooms. This argument was lensed with a transformative paradigm to guide our argument towards transforming classrooms. Therefore, we conclude that transformational teaching aims to equip students with the skills they need to be productive members of society. As such, educators must find ways to improve their pedagogical strategies. This can be done by incorporating critical thinking skills into lessons and discussions, fostering collaboration among students. They learn how to work together effectively, building strong relationships with each student. Hence, he or she feels cared for and

supported during the learning processes, and providing holistic development opportunities for all learners by challenging them intellectually while also catering for their future activities outside of schools. To improve the classroom environment at any level –elementary school through university-level courses –we encourage that educators promote transformational teaching by ensuring that classrooms are made to enhance critical thinking skills, allow collaboration among learners, and ensure some level of flexibility in the form of student-teacher relationships that could foster students’ holistic development. This becomes expedient because they are dimensions of effective classrooms at all levels of education.

## REFERENCES

- Adebiyi, D. O., Adebiyi, T. F., Daramola, A. O., & Seyi-Oderinde, D. R. (2019). The behaviours and roles of school principals in tackling security challenges in Nigeria: A context-responsive leadership perspective. *Interdisciplinary Journal of Education Research*, 1(2), 74-88. <https://injer.org/injer/article/view/19694>
- Adeyemo, S. A., Ogunleye, A. O., Oke, C. O., & Adenle, S. O. (2010). A survey of factors determining the employability of science and technology graduates of polytechnics and universities in the Nigerian labour market. *International Journal of Science and Technology Education Research*, 1(5), 99-106. <https://doi.org/10.5897/IJSTER.9000002>
- Al Nasser, Y. S., Renganathan, L., Al Nasser, F., & Al Balushi, A. (2014). Impact of student-teacher relationship on student's learning: A review of literature. *International Journal of Nursing Education*, 6(1), 167-172.
- Alghasab, M., Hardman, J., & Handley, Z. (2019). Teacher-student interaction on wikis: Fostering collaborative learning and writing. *Learning, Culture and Social Interaction*, 21, 10-20. <https://doi.org/10.1016/j.lcsi.2018.12.002>
- Allamnahrah, A. (2013). Learning Critical Thinking in Saudi Arabia: Student Perceptions of Secondary Pre-Service Teacher Education Programs. *Journal of Education and Learning*, 2(1), 197-210. <http://dx.doi.org/10.5539/jel.v2n1p197>
- Awartani, M., Whitman, C. V., & Gordon, J. (2008). Developing instruments to capture young people's perceptions of how school as a learning environment affects their well-being. *European Journal of Education*, 43(1), 51-70. <https://doi.org/10.1111/j.1465-3435.2007.00337.x>
- Azlina, N. N. (2010). CETLs: Supporting collaborative activities among students and teachers through the use of think-pair-share techniques. *International Journal of Computer Science Issues*, 7(5), 18.
- Balliu, V. (2017). Modern teaching versus traditional teaching-Albanian teachers between challenges and choices. *European Journal of Multidisciplinary Studies*, 2(4), 20-26. <https://doi.org/10.26417/ejms.v4i4.p20-26>
- Bantwini, B. D., & Letseka, M. (2016). South African teachers caught between nation-building and global demands: Is there a way out/forward? *Educational Studies*, 52(4), 329-345.

- Barhoumi, C. (2015). The effectiveness of WhatsApp mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology, 6*(3), 221-238. <https://eric.ed.gov/?id=EJ1105764>
- Barrett, T., & Feng, Y. (2021). Evaluation of food safety curriculum effectiveness: A longitudinal study of high-school-aged youths' knowledge retention, risk-perception, and perceived behavioral control. *Food Control, 121*, 107587. <https://doi.org/10.1016/j.foodcont.2020.107587>
- Barzegar, Z., Kiani, Q., & Shahnava, A. (2020). Structural Relationships between Perceived Transformational Teaching and Critical Thinking: Mediating Role of Motivational Beliefs in College Students. *Iranian Evolutionary and Educational Psychology Journal, 2*(4), 249-257. <http://dx.doi.org/10.52547/ieepj.2.4.249>
- Braskamp, L. A. (2009). Applying personal investment theory to better understand student development. In A. Kaplan, S. A. Karabenick, E. De Groot (Eds), *Culture, self, and motivation: Essays in Honor of Martin L. Maehr*, (pp. 21-38). Information Age Publishing, INC.
- Castillo, I., Molina-García, J., Estevan, I., Queralt, A., & Álvarez, O. (2020). Transformational teaching in physical education and students' leisure-time physical activity: the mediating role of learning climate, passion and self-determined motivation. *International Journal of Environmental Research and Public Health, 17*(13), 4844. <https://doi.org/10.3390/ijerph17134844>
- Covill, A. E. (2011). College students' perceptions of the traditional lecture method. *College Student Journal, 45*(1), 92-102.
- Davis, H. A. (2003). Conceptualising the role and influence of student-teacher relationships on children's social and cognitive development. *Educational Psychologist, 38*(4), 207-234. [https://doi.org/10.1207/S15326985EP3804\\_2](https://doi.org/10.1207/S15326985EP3804_2)
- Decker, D. M., Dona, D. P., & Christenson, S. L. (2007). Behaviorally at-risk African American students: The importance of student-teacher relationships for student outcomes. *Journal of School Psychology, 45*(1), 83-109. <https://doi.org/10.1016/j.jsp.2006.09.004>
- Duchscher, J. E. B. (1999). Catching the wave: Understanding the concept of critical thinking. *Journal of Advanced Nursing, 29*(3), 577-583.
- Elmer, T., Mephram, K., & Stadtfeld, C. (2020). Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. *PloS One, 15*(7), e0236337. <https://doi.org/10.1371/journal.pone.0236337>
- Fazio-Griffith, L., & Ballard, M. B. (2016). Transformational learning theory and transformative teaching: A creative strategy for understanding the helping relationship. *Journal of Creativity in Mental Health, 11*(2), 225-234. <https://doi.org/10.1080/15401383.2016.1164643>

- Fennick, E., & Liddy, D. (2001). Responsibilities and preparation for collaborative teaching: Co-teachers' perspectives. *Teacher Education and Special Education, 24*(3), 229-240. <https://doi.org/10.1177%2F088840640102400307>
- Fong, C. J., Kim, Y., Davis, C. W., Hoang, T., & Kim, Y. W. (2017). A meta-analysis on critical thinking and community college student achievement. *Thinking Skills and Creativity, 26*, 71-83. <https://doi.org/10.1016/j.tsc.2017.06.002>
- Forbes, H., Duke, M., & Prosser, M. (2001). Students' perceptions of learning outcomes from group-based, problem-based teaching and learning activities. *Advances in Health Sciences Education, 6*(3), 205-217. <https://doi.org/10.1023/A:1012610824885>
- Frey, B. (2018). *The SAGE encyclopedia of educational research, measurement, and evaluation* (Vols. 1-4). Thousand Oaks, CA: SAGE Publications, Inc. <https://dx.doi.org/10.4135/9781506326139.n708>
- Harris, M. (1992). Collaboration is not collaboration: Writing center tutorials vs. peer-response groups. *College Composition and Communication, 43*(3), 369-383. <https://doi.org/10.2307/358228>
- Healey, R. L. (2012). The power of debate: Reflections on the potential of debates for engaging students in critical thinking about controversial geographical topics. *Journal of Geography in Higher Education, 36*(2), 239-257. <https://doi.org/10.1080/03098265.2011.619522>
- Holland, C., & Muilenburg, L. (2011, March). Supporting student collaboration: Edmodo in the classroom. In *Society for Information Technology & Teacher Education International Conference* (pp. 3232-3236). Association for the Advancement of Computing in Education (AACE).
- Howe, R. B., & Covell, K. (2005). *Empowering children: Children's rights education as a pathway to citizenship*. Toronto: University of Toronto Press.
- Jackson, D., Power, T., Sherwood, J., & Geia, L. (2013). Amazingly resilient Indigenous people! Using transformative learning to facilitate positive student engagement with sensitive material. *Contemporary Nurse, 46*(1), 105-112. <https://doi.org/10.5172/conu.2013.46.1.105>
- Jackson, K. M., Pukys, S., Castro, A., Hermosura, L., Mendez, J., Vohra-Gupta, S., ... & Morales, G. (2018). Using the transformative paradigm to conduct a mixed-methods needs assessment of a marginalised community: Methodological lessons and implications. *Evaluation and Program Planning, 66*, 111-119. <https://doi.org/10.1016/j.evalprogplan.2017.09.010>
- Johnson-Bailey, J., & Alfred, M. V. (2006). Transformational teaching and the practices of black women adult educators. *New Directions for Adult and Continuing Education, 2006*(109), 49-58. <https://doi.org/10.1002/ace.207>
- Jones, M. (2009). Transformational learners: Transformational teachers. *Australian Journal of Teacher Education, 34*(2), 15-27.

- Kendler, K. S., & Neale, M. C. (2010). Endophenotype: A conceptual analysis. *Molecular Psychiatry*, 15(8), 789-797.
- Klassen, R. M., & Tze, V. M. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, 12, 59-76.  
<https://doi.org/10.1016/j.edurev.2014.06.001>
- Kraut, R., Egido, C., & Galegher, J. (1988). Patterns of contact and communication in scientific research collaboration. In *Proceedings of the 1988 ACM conference on Computer-supported cooperative work* (pp. 1-12). <https://doi.org/10.1145/62266.62267>
- Kyte, D. (2016). Toward a sustainable sense of self in teaching and teacher education: Sustainable happiness and well-being through mindfulness. *McGill Journal of Education/Revue des sciences de l'éducation de McGill*, 51(3), 1143-1162.
- Laal, M., Khattami-Kermanshahi, Z., & Laal, M. (2014). Teaching and education; collaborative style. *Procedia-Social and Behavioral Sciences*, 116, 4057-4061.  
<https://doi.org/10.1016/j.sbspro.2014.01.890>
- Lai, E. R. (2011a). *Collaboration: A literature review*. Pearson Publisher.
- Lai, E. R. (2011b). Critical thinking: A literature review. *Pearson's Research Reports*, 6(1), 40-41.
- Lee, D. H. L., & Lee, W. O. (2018). Transformational change in instruction with professional learning communities? The influence of teacher cultural disposition in high power distance contexts. *Journal of Educational Change*, 19(4), 463-488.  
<https://doi.org/10.1007/s10833-018-9328-1>
- Loes, C. N. (2022). The Effect of Collaborative Learning on Academic Motivation. *Teaching and Learning Inquiry*, 10, 1-17. <https://doi.org/10.20343/teachlearningu.10.4>
- Lovat, T., Clement, N., Dally, K., & Toomey, R. (2010). Values education as holistic development for all sectors: Researching for effective pedagogy. *Oxford Review of Education*, 36(6), 713-729. <https://doi.org/10.1080/03054985.2010.501141>
- Marasi, S. (2019). Team-building: Developing teamwork skills in college students using experiential activities in a classroom setting. *Organisation Management Journal*, 16(4), 324-337. <https://doi.org/10.1080/15416518.2019.1662761>
- Mason, S. (2018). The impact of transformational learning for mature adults studying a Foundation Degree. *Widening Participation and Lifelong Learning*, 20(2), 8-27.  
<https://doi.org/10.5456/WPLL.20.2.8>
- McCurry, M. K., & Martins, D. C. (2010). Teaching undergraduate nursing research: a comparison of traditional and innovative approaches for success with millennial learners. *Journal of Nursing Education*, 49(5), 276-279.
- McGrath, K. F., & Van Bergen, P. (2015). Who, when, why and to what end? Students at risk of negative student-teacher relationships and their outcomes. *Educational Research Review*, 14, 1-17. <https://doi.org/10.1016/j.edurev.2014.12.001>

- Meguid, E. A., & Collins, M. (2017). Students' perceptions of lecturing approaches: Traditional versus interactive teaching. *Advances in Medical Education and Practice*, 8, 229. <https://dx.doi.org/10.2147%2FAMEP.S131851>
- Milenković, A., & Dimitrijević, S. (2019). Advantages and disadvantages of heuristic teaching in relation to traditional teaching-the case of the parallelogram area. *Research in Mathematics Education*, 74. <https://dms.rs/wp-content/uploads/2019/12/Zbornik-ERME.pdf#page=75>
- Morrow, J. A., Kelly, S., & Skolits, G. (2013). Reducing power differentials in the classroom using student-based quantitative research scenarios: Applications in undergraduate and graduate research methods classrooms. *Communication Teacher*, 27(3), 156-160. <https://doi.org/10.1080/17404622.2013.775469>
- Morton, K. L., Keith, S. E., & Beauchamp, M. R. (2010). Transformational teaching and physical activity: A new paradigm for adolescent health promotion? *Journal of Health Psychology*, 15(2), 248-257. <https://doi.org/10.1097/JES.0b013e31822153e7>
- Murray, C., & Zvoch, K. (2011). Teacher-student relationships among behaviorally at-risk African American youth from low-income backgrounds: student perceptions, teacher perceptions, and socioemotional adjustment correlates. *Journal of Emotional and Behavioral Disorders*, 19(1), 41-54. <https://doi.org/10.1177/1063426609353607>
- Novaes, C. D. (2012). *Formal languages in logic: A philosophical and cognitive analysis*. London: Cambridge University Press.
- Ordem, E. (2017). Developing critical-thinking dispositions in a listening/speaking class. *English Language Teaching*, 10(1), 50-55. <http://dx.doi.org/10.5539/elt.v10n1p50>
- Pulgar, J., Candia, C., & Leonardi, P. M. (2020). Social networks and academic performance in physics: Undergraduate cooperation enhances ill-structured problem elaboration and inhibits well-structured problem solving. *Physical Review Physics Education Research*, 16(1), 010137. <https://doi.org/10.1103/PhysRevPhysEducRes.16.010137>
- Quillinan, B., MacPhail, A., Dempsey, C., & McEvoy, E. (2019). Transformative teaching and learning through engaged practice: lecturers' and students' experiences in a university and underserved community partnership in Ireland. *Journal of Transformative Education*, 17(3), 228-250. <https://doi.org/10.1177%2F1541344618809681>
- Rau, M. A., Kennedy, K., Oxtoby, L., Bollom, M., & Moore, J. W. (2017). Unpacking "active learning": A combination of flipped classroom and collaboration support is more effective but collaboration support alone is not. *Journal of Chemical Education*, 94(10), 1406-1414. <https://doi.org/10.1021/acs.jchemed.7b00240>
- Razmerita, L., & Kirchner, K. (2014, September). Social media collaboration in the classroom: A study of group collaboration. In CYTED-RITOS International Workshop on Groupware (pp. 279-286). Springer, Cham. [https://doi.org/10.1007/978-3-319-10166-8\\_25](https://doi.org/10.1007/978-3-319-10166-8_25)

- Rosli, R., Capraro, M. M., & Capraro, R. M. (2014). The effects of problem posing on student mathematical learning: a meta-analysis. *International Education Studies*, 7(13), 227-241. <http://dx.doi.org/10.5539/ies.v7n13p227>
- Salaber, J. (2014). Facilitating student engagement and collaboration in a large postgraduate course using wiki-based activities. *The International Journal of Management Education*, 12(2), 115-126. <https://doi.org/10.1016/j.ijme.2014.03.006>
- Slavich, G. M. (2005). Transformational teaching. Excellence in teaching. *PsychTeacher Electronic Discussion List*, 5. <http://www.georgeslavich.com/pubs/Slavich TT 2005.pdf>
- Slavich, G. M., & Zimbardo, P. G. (2012). Transformational teaching: Theoretical underpinnings, basic principles, and core methods. *Educational Psychology Review*, 24(4), 569-608. <https://doi.org/10.1007/s10648-012-9199-6>
- Sointu, E. T., Savolainen, H., Lappalainen, K., & Lambert, M. C. (2017). Longitudinal associations of student–teacher relationships and behavioural and emotional strengths on academic achievement. *Educational Psychology*, 37(4), 457-467. <https://doi.org/10.1080/01443410.2016.1165796>
- Southern, N. L. (2007). Mentoring for transformative learning: The importance of relationship in creating learning communities of care. *Journal of Transformative Education*, 5(4), 329-338. <https://doi.org/10.1177%2F1541344607310576>
- Stephen L. C. & William J. C. (2021). The cognitive challenges of effective teaching. *The Journal of Economic Education*, 52(1), 17-40, <https://doi.org/10.1080/00220485.2020.1845266>
- Tahir, K. (2018). Transformational teaching: Pakistani students' perspectives in the English classroom. *International Journal of Teaching and Learning in Higher Education*, 30(1), 61-69.
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. *The SAGE Handbook of Qualitative Research in Psychology*, 2, 17-37.
- Ukpokodu, O. (2009). The practice of transformative pedagogy. *Journal on Excellence in College Teaching*, 20(2), 43-67. <https://eric.ed.gov/?id=EJ883725>
- Veenman, S., Kenter, B., & Post, K. (2000). Cooperative learning in Dutch primary classrooms. *Educational Studies*, 26(3), 281-302. <https://doi.org/10.1080/03055690050137114>
- Von Colln-Appling, C., & Giuliano, D. (2017). A concept analysis of critical thinking: A guide for nurse educators. *Nurse Education Today*, 49, 106-109. <https://doi.org/10.1016/j.nedt.2016.11.007>
- Walker, J. M., & Hoover-Dempsey, K. V. (2013). Why research on parental involvement is important to classroom management. In *Handbook of classroom management* (pp. 675-694). London: Routledge.
- Williams, K. C., & Williams, C. C. (2011). Five key ingredients for improving student motivation. *Research in Higher Education Journal*, 12, 1-23.
- Witherspoon, E. E. (2011). *The significance of the teacher-student relationship*. (Ed.D. Dissertation, University of Redlands). <https://www.proquest.com/docview/897947242>