



The Potency of Social constructivism on Classroom Productivity in Universities

*B I Omodan¹

¹CAPTD Faculty of Education, Butterworth Campus, Walter Sisulu University, South Africa

Article Info

Article history:

Received February 21, 2022

Revised March 3, 2022

Accepted March 29, 2022

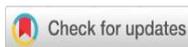
Available Online April 30, 2022

Keywords:

Social Constructivism
University Students
Classroom Productivity
Transformation

ABSTRACT

Various indications, including literature, have confirmed that university classrooms are still mostly inactive and undemocratic, dominated by instructors and lecturers. That is, little or no atmosphere is created for the student to be a socially active participant in generating knowledge which appears to have affected their sociality in the university and their lives after their university education. Some university lecturers still use traditional or a systematic colonised way of teaching. This study responded by proposing unabridged Social Constructivism (SC) to create socially active university students towards becoming productive and active citizens. This was done by answering a general question: How can SC be projected in the university classroom to create active and productive students? This study was located within a transformative paradigm in order to transform students' inactiveness in the process of generating knowledge. Conceptual analysis was used to design the study. This was done within the principle of thematic analysis by arranging SC's assumptions into themes and making sense of them. The study thus presents that SC possesses the acumen to assist lecturers in ensuring that their classrooms are socially active towards student productivity both in the schools and in the field of work.



<https://doi.org/10.46627/silet>

INTRODUCTION

Active participation in university classrooms is characterised by lecturers engaging with students, students engaging themselves and their instructors socially, morally and cognitively into the learning process. In this study, both lecturer and instructor are used interchangeably to mean the same thing. However, a university classroom is supposed to be a source of learning if both students and lecturers are involved in an interactive relationship that will benefit from each other's expertise. This is essential because socially active classroom members do not just sit back in the class session but actively participate in activities such as asking questions that require an explanation or clarification, encouraging others, raising opinions, presenting their views either through reactions or counter-arguments to other students' input and basically getting engaged with their environment. However, in most cases today, university classrooms are inactive towards student productivity (Benzo et al., 2016; Pengpid et al., 2015). Therefore, the process of generating knowledge in classrooms is not inclined to the plight of the students by making them socially and actively informed. This can be attributed to many factors, but the main reason for an inactive classroom, according to Gilakjani et al. (2013), is that most instructors lack resources and knowledge to create an active environment in the classroom. For clarity sake, socially active classrooms are where the instructors can motivate the students to be involved in discussions, debates, and other forms of interactive participation with each other or their instructors (Zepke, 2015). At the same time, the socially inactive classroom does not participate actively in a

discussion, debate or even ask for clarifications from their instructor(s) when need be (Deliens et al., 2015).

One could then argue that there is a clear distinction between socially active and inactive classroom members as the former's primary interest is learning while the latter's priority is passing through the course. For this reason, more emphasis is focused on why today's university classrooms still have an iota of inactiveness. The existence of the latter, that is, inactive classroom participants, can be linked to a lack of utilisation and understanding of effective teaching and learning components like motivation, appropriate skills, and knowledge necessary to interact with the course material (Gilboy et al., 2015; Saeed & Zyngier, 2012), which renders students inactive in the classroom. It may also reduce their zeal to seek knowledge and thereby affect their critical thinking, inquisitive, interactive, and participatory skills. This is especially true for socially inactive students who feel that they have no control over or no motivation towards the subject under discussion/instruction. Hence, they become silent in the process of knowledge construction. This argument complements that of Siebenaler (1997) that an inactive classroom is significant to students' dissatisfaction with classrooms activities and affect the potential bond between students and their instructors.

This article joins the host of other literature to argue that inactive classrooms affect classroom productivity which could be measured by students' participatory skills, academic performance, overall productivity, students-teacher relationships, the ability of students to manage their diversities, and the knowledge of their individual differences (Adha et al., 2018; Bernstein-Yamashiro & Noam, 2013; Gurin et al., 2002; Weaver et al., 2018). This further confirms that poor classroom productivity resulting from teaching and learning practices undermine student achievement. Furthermore, poor teaching practices are also more likely to lead to poor productivities among classroom stakeholders (Adeyemo, 2012). When a lecturer has little knowledge of the appropriate teaching styles for classroom situations or has a low level of commitment to teaching and is poorly prepared, it will lead to nothing but unpleasant productivity. Teaching practices here means the belief or style lecturers use in teaching their students. Turner et al. (2009) tagged this as teacher's beliefs. In their argument, teachers who believe that all children are capable learners will create classrooms where students are encouraged to ask questions and seek out new challenges, whereas those with negative academic beliefs will tend to give out much busy work or use a grading system that does not encourage students to take risks and learn from mistakes. The latter constitutes one of the reasons for the lack of productive classrooms in the universities.

Findings from Akbari and Allvar (2010) about teachers' efficacy showed that the use or not the use of appropriate teaching styles and teachers' reflectivity are significant to students' academic achievement. The extent to which teachers display classroom efficacies and mastery of teaching and learning that is productive to students will go a long way to assist students in succeeding. It has also been established that poor teachers' teaching methods, unconducive students' environment, and teachers' professionalism influence students' academic performance (Asikhia, 2010). This is to argue that when the lecturer is unsure or possesses low knowledge of the method of appropriate teaching style, unable to create good teaching and classroom atmosphere with professional knowledge, may affect the student's productivity, which decreases classroom productivity thereafter. This is also supported by the finding of Banerjee (2016) that the lack of a positive environment and social support for students in the classroom deprives students of their performance and overall achievement. This kind of environment may make the students perceive their lecturer negatively, and such negative perception of teachers by the students, according to (Graber, 2009) can affect students' academic performance negatively. Based on this, the study proposed that, for a university classroom to be active and participatory to meet its expected end, the place of Social Constructivism (SC) is imminent. This is because it is a theory that views the process of knowledge production from sociological perspectives through human relationships, interactions and togetherness (Omodan & Tsotetsi, 2020). This theory will be unpacked in the latter part of the article.



Research Question

In other to respond to the above problem, the following research question was answered analytically and argumentatively:

- How can SC be projected in the university classroom as a strategy to create active and productive students?

Research Objectives

In order to answer the above research question, the following research objectives were presented to guide the process.

- The study presented Social Constructivism as a potential philosophy of classroom productivity.
- The study also examines the assumptions of Social Constructivism and its relevance to classroom productivity.

RESEARCH METHOD

This study is argumentative in nature and situated with the purview of the Transformative Paradigm (TP). In research, the research paradigm is seen as the researcher's worldview (Mackenzie & Knipe, 2006), first conceptualised by Thomas Kuhn in 1962 as a philosophical way of thinking (Kivunja & Kuyini, 2017). That is, one could argue that the research paradigm is the school of thought and or the researchers' belief towards particular research and the process of conducting such research. Among many paradigms, such as positivism, post-positivism, interpretivism, and transformative paradigm, this study adopted the latter. The transformative paradigm is appropriate because it aims to transform students' classroom predicament towards productivity. The paradigm is majorly to promote freedom for the marginalised, colonised and subjugated people into the world of being (Heimtun & Morgan, 2012). In this study, the perpetual traditional and or anti participatory classroom practices in a university classroom is challenged by proffering solutions that could alleviate the problem. By so doing, I presented Social Constructivism as an alternative to transform university classrooms towards transformation. This was done with the help of conceptual analysis as a design that guided the process of making sense of the argument. Conceptual analysis is an argumentative process of making sense or a case based on the potency of a particular concept or meaning. This agrees with the definition of Furner (2004) that conceptual analysis enables the use of exploratory and evaluation where the concept and evidence are analysed, perhaps, through argument and critical thinking. Therefore, the assumptions of the SC as presented in this study were subjected to argumentative evaluation and analysis to make sense of the concepts. However, the theoretical assumptions of the theory (SC) alongside how it can ameliorate classroom productivity were presented thematically and point by point. Thematic analysis was relevant because it enables the presentation to be arranged in the form of themes (Guest et al., 2011) derived from the theory and then targeted the "assumptions". These are shown below.

RESULTS AND DISCUSSION

This section presents the theoretical understanding of Social Constructivism, its assumptions, relevance, and how it could be implemented in the classroom. This was done by presenting the theory, followed by its relevance to the pedagogical process and its assumptions vis-à-vis the practical application of the assumptions.

Presentation of Theory: Social Constructivism

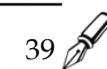
The Social Constructivism (SC) theory was first introduced by Jean Piaget, a Swiss developmental psychologist (Amineh & Asl, 2015; Brau, 2020; Pass, 2004). SC was coined to explain the process of knowledge production with the belief that knowledge is produced by social forces conditioned by history and culture; thus, it cannot be taken as a fixed or objective representation of reality (Kukla, 2013; Lynch, 2019). This theory is widely used in Social Studies since it focuses on culture

and history, which play important roles in shaping individual interpretations of socially constructed concepts (McKinley, 2015; Van Hover & Hicks, 2017). Piaget believed that to understand knowledge, one must go beyond the product and investigate how it has been created. Hence, social constructivists view human relationships, interactions and togetherness as necessary factors in producing knowledge. This implies that learning is an active process where learners are involved in doing things with others who are more experienced/more knowledgeable than them. In a related argument positioned by Doolittle (2014), knowledge is viewed as something that emerges through social interactions or activities. Therefore, social constructivist educators believe every individual has different ways of learning depending on their culture and togetherness with others, which challenge traditional education because they tend to focus on the relationship between teachers and students to create learning experiences that are meaningful to learners. Based on this, one can argue that within the purview of SC, knowledge is co-constructed through interactions with others in a given social setting, thus creating meaning for individuals participating in these interactions.

In the argument of Bunge (2000), SC is against individualism because of its principle of information sharing among two or more people as important in defining knowledge. This is a practical challenge to empiricism (i.e., what one sees should dictate what one knows) since Social Constructionists claim that knowledge is not objective but rather constructed by culture and history. SC also challenges objectivism (objective truth exists independent of people) (Hazelrigg, 1986) since Social Constructionists believe interactions between people construct knowledge. This is also a practical challenge to traditional pedagogy where learners are seen as neutral receivers of knowledge, where learning should be structured to make sense, where learning should have an end, and where the teacher is the primary source of knowledge. As against the tenet of a traditionalist, social constructivists claim that what you know is not something that's given but rather something that you create, a personal construct of a shared reality. That is, they see learning as an active process where learners constantly remake knowledge through interactions with others.

This theory is advantageous over traditional classrooms because it views students as active participants in the classroom who share different ways of learning and because it also believes everyone has different worldviews based on their experiences and togetherness with others, which leads to different ways of understanding knowledge. Based on this, I can also argue that the potency of this theory has introduced spices into the way general education is being viewed. When the SC lens is used, education is seen as a social activity that involves mutual sharing among people instead of focusing on concepts and ideas, which encourages students to share their perspectives because this will enable them to see other people's views and knowledge construct. This paradigm shift is based on the idea that people construct knowledge from those experiences and their interactions with others. Findings also confirm that SC is effective in the classroom as it helps students understand better what they are studying and how they can apply those concepts outside of the classroom (Atwater, 1996; Schreiber & Valle, 2013). This also corroborates the argument of Kalpana (2014) that SC provides an opportunity for learners to be actively involved in learning instead of being passive receivers of information.

In addition, one could argue that it encourages collaboration by allowing several possibilities for learning activities such as recognising patterns, relating ideas, drawing inferences and brainstorming. Perhaps, this is why CS was recommended as an effective approach to teaching because it emphasises the learner's point of view and accommodates many different learning styles (Kalina & Powell, 2009; Kim, 2001). It also enables students to express their opinions about what they are learning, which builds knowledge that comes from the experience of each individual (Kearney & Treagust, 2001). From the above exploration of the SC, one can deduce the existence of many assumptions: participatory classroom, group problem solving, unity and human relationship, and diversity management. These four assumptions are discussed below as the principle of SC based on the argument made above.



Assumptions of Social Constructivism

- **Participatory classroom:** from all indications in the above exploration, one could see that the SC-oriented process of knowledge generation is participatory. SC promotes participation among the people or the stakeholders in generating new knowledge. This is not only because of its principle of information sharing classroom participants (Bunge, 2000), but also cherished interaction, collaboration and team spirit among the people. The argument of Churcher (2014) also confirms that SC is participatory in nature and could produce robust knowledge that complements an adage that says “two heads are better than one”. This also corroborates the presentation of Muro and Jeffrey (2008) that CS enables the production of new knowledge to be possible through people’s togetherness and participation.
- **Group problem solving:** from the above theoretical analysis, one could also argue that the principle and focus of SC are to motivate people’s interest to find solutions to problems jointly. That is, implementation of a concerted usage of SC is synonymous with problem-solving skills. This is also in consonance with the argument of Kalina and Powell (2009) that CS enables students to think critically and provide solutions to their problems. The idea here is that people’s sociality enables them to freely interact, work together, and find solutions to problems. In such a situation, there is no individuality but collectivity, and the problem of one becomes the problem of all. In the same vein, it also assists people to solve their conflicts towards finding solutions to their common problems (Schreiber & Valle, 2013).
- **Unity and human relationships:** From the above analysis, one can argue that unity and human relationships are at the centre of SC. It is a philosophical view that postulates that human beings can control social reality through their own mental activity. Social realities are the subject of ideas, objects, relationships and arrangements of behaviour between individuals. This aligns with the argument that people are actively involved in creating their perceived reality (Adoni & Mane, 1984; Knoblauch & Wilke, 2016) which is an element that creates unity of purpose among people. This assumption also takes solace from symbolic interactionism, which claims that focusing only on what goes into an individual's mind misses much of what is important in human relationships. In this view, social reality is created through unity of purpose shared by interacting individuals.

Diversity management: From the above theoretical analysis, I believe that social constructivism enables people to understand themselves and become aware of their differences. That is, the goal of social constructivism is to create and or provide individuals with tools they can use to help them better understand themselves, people around them and their community via collaboration and togetherness in the process of generating new knowledge. The idea here is that when people work together, doing things together, interacting together, thinking together will increase their love for one another, helping them understand and manage themselves, including their potential conflict. This complements the fact that working with different people can help people think in new ways about themselves and others, leading to insights that might otherwise remain hidden.

Analysis of the assumptions and classroom productivity

This section presents the discussion of CS assumptions as correlates of classrooms productivity which has been earlier described as participatory skill, students’ academic performance and overall productivity, students-teacher relationships, the ability of students to manage their diversities, and the knowledge of their individual differences. This discussion is done under the following sub-headings: Participatory classroom and classroom productivity, group problem solving and classroom productivity, unity and human relationships and classroom productivity, diversity management and classroom productivity.



- **Participatory classroom and classroom productivity:** From the above theoretical argument, the study presents a participatory classroom as one of the teaching and learning approaches that could enhance classroom productivity. When classroom activities are participatory and allow the students to be actively involved in generating knowledge, it will promote their critical thinking skills and enhance their collaborative ways of doing things. This agrees with Zubiri-Esnaola et al. (2020) findings that participatory classrooms increase students' collaboration towards generating new knowledge. In the same vein, the finding of Coldwell et al. (2008) also confirm that lack of participatory classrooms is significant in the negative direction to the students' academic performance. On the other hand, consistent participation in classes has been found as the major characteristics of top performer students in universities (Voghoei et al., 2019). Abubakar et al. (2017) also support this by saying that collaborative engagement among students and between students and lecturers promotes students' success. Therefore, a participatory classroom laced with SC is an instrument for classroom productivity in the university system.
- **Group problem-solving and classroom productivity:** Based on the above theoretical analysis, I deduced that group problem solving as one of the assumptions of the SC is beneficial to classroom productivity. This is because the unity involved in the process of providing solutions to a particular problem makes a robust achievement among the students. This aligns with Telzrow et al. (2000) that problem-solving components are significant to positive students' outcomes. This is also supported by the finding of Gupta (2004) that when students cooperatively work in a group to find a solution to a particular problem, it increases students' teamwork, communication, problem-solving skill and retention rate. Furthermore, when students work together in pairs, it increases cooperative learning towards performance and enables them to learn how to share responsibilities, which encourages the transfer of knowledge from one another (Mahenthiran & Rouse, 2000; Suliwa et al., 2021; Viyayanti & Dwikoranto, 2021). That is, when the idea of group problem solving from the purview of SC is implemented in the university classroom, it will promote overall classroom productivity.
- **Unity and human relationships and classroom productivity:** Based on the above theoretical analysis, one can further argue that good relationships facilitate unity among students. This argument is taken from SC's principle, which postulated shared ways of doing things. That is, SC is premised on togetherness in the process of generating new knowledge (Dag, 2016). Hence, the unity among students, vis-à-vis student on student or student on lecturer relationships, has been found to enhance students' performance and overall classroom achievement (Arum, 2011; Aspelin, 2012; Omodan & Tsoetsi, 2018; Topor et al., 2010). Therefore, university classrooms are bound to be productive when professional relationships and unity among the classroom stakeholders are created.
- **Diversity management and classroom productivity:** Based on the above analysis, one can deduce that SC creates democratic classrooms because it encourages interactions, opinions, and arguments to be freely given among colleagues. My argument is to create an avenue for all the participants to understand themselves and their diversities and learn how to manage their differences. This is in consonance with Guo et al. (2014) that students learn to manage their diversities when they get involved in themselves towards a particular purpose. This is to further argue that when university classrooms are made to recognise individual students and their unique differences, it will enhance their knowledge of diversities and how to manage their diversities towards ensuring overall classroom productivity.

CONCLUSION

Students respond to the perceived inactive classrooms by proposing social constructivism as an imminent alternative classroom practice that could promote classroom productivity in universities. This was argued within the lens of transformative paradigm to enable the end product of the article to transform classroom productivity. Based on the theoretical presentation, and analysis of the assumptions alongside their implication on classroom productivity, the study concludes that adequate implementation of SC and its four cardinal assumptions are the factors that could enhance productivity in university classrooms. Therefore, the following recommendations were made: University lecturers alongside students should ensure the use of a participatory teaching-learning process to ensure transformative classrooms. Secondly, classrooms should be structured to accommodate grouping in solving problems that are assumed to be productive to the students critical thinking and problem-solving skills. Thirdly, professional relationships towards the unity of purpose must be created in the classrooms, and lastly, since the classroom consists of diverse students from various backgrounds, the classrooms must be made to cater for students diversities by making the student aware of their diversities and how to manage them.

REFERENCES

- Abubakar, A. M., Abubakar, Y., & Itse, J. D. (2017). Students' engagement in relation to academic performance. *Journal of Education and Social Sciences*, 8(1), 5-9.
- Adeyemo, S. A. (2012). The relationship between effective classroom management and students' academic achievement. *European Journal of Educational Studies*, 4(3), 367-381.
- Adha, M., Yanzi, H., & Nuralisa, Y. (2018). The improvement of student intellectual and participatory skill through project citizen model in civic education classroom. *International Journal Pedagogy of Social Studies*, 3(1), 39-49.
- Adoni, H., & Mane, S. (1984). Media and the social construction of reality: Toward an integration of theory and research. *Communication Research*, 11(3), 323-340. <https://doi.org/10.1177%2F009365084011003001>
- Akbari, R., & Allvar, N. K. (2010). L2 teacher characteristics as predictors of students' academic achievement. *The Electronic Journal for English as a Second Language*. 13(4), 1-22. <https://files.eric.ed.gov/fulltext/EJ898204.pdf>
- Amineh, R. J., & Asl, H. D. (2015). Review of constructivism and social constructivism. *Journal of Social Sciences, Literature and Languages*, 1(1), 9-16.
- Arum, R. (2011). Improve relationships to improve student performance. *Phi Delta Kappan*, 93(2), 8-13. <https://doi.org/10.1177%2F003172171109300203>
- Asikhia, O. A. (2010). Students and teachers' perception of the causes of poor academic performance in Ogun State secondary schools [Nigeria]: Implications for counselling for national development. *European Journal of Social Sciences*, 13(2), 229-242.
- Aspelin, J. (2012). How do relationships influence student achievement? Understanding student performance from a general, social psychological standpoint. *International Studies in Sociology of Education*, 22(1), 41-56. <https://doi.org/10.1080/09620214.2012.680327>
- Atwater, M. M. (1996). Social constructivism: Infusion into the multicultural science education research agenda. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 33(8), 821-837. [https://doi.org/10.1002/\(SICI\)1098-2736\(199610\)33:8%3C821::AID-TEA1%3E3.0.CO;2-Y](https://doi.org/10.1002/(SICI)1098-2736(199610)33:8%3C821::AID-TEA1%3E3.0.CO;2-Y)
- Banerjee, P. A. (2016). A systematic review of factors linked to the poor academic performance of disadvantaged students in science and maths in schools. *Cogent Education*, 3(1), 1178441. <https://doi.org/10.1080/2331186X.2016.1178441>
- Benzo, R. M., Gremaud, A. L., Jerome, M., & Carr, L. J. (2016). Learning to stand: The acceptability and feasibility of introducing standing desks into college classrooms. *International Journal of Environmental Research and Public Health*, 13(8), 823. <https://doi.org/10.3390/ijerph13080823>

- Bernstein-Yamashiro, B., & Noam, G. G. (2013). Teacher-student relationships: A growing field of study. *New Directions for Youth Development*, 2013(137), 15-26. <https://doi.org/10.1002/yd.20045>
- Brau, B. (2020). Constructivism: The students' guide to learning design and research. <https://edtechbooks.org/studentguide/constructivism>
- Bunge, M. (2000). Ten modes of individualism—none of which works—and their alternatives. *Philosophy of the Social Sciences*, 30(3), 384-406. <https://doi.org/10.1177%2F004839310003000303>
- Churchar, K. (2014). "Friending" Vygotsky: A social constructivist pedagogy of knowledge building through classroom social media use. *Journal of Effective Teaching*, 14(1), 33-50. <https://eric.ed.gov/?id=EJ1060440>
- Coldwell, J., Craig, A., Paterson, T., & Mustard, J. (2008). Online students: Relationships between participation, demographics and academic performance. *Electronic Journal of E-learning*, 6(1), 19-30.
- DAG, N. (2016). Consideration on class communication and state of togetherness in class within the framework of constructivism. *Journal of Kirsehir Education Faculty*, 17(2), 315-328.
- Deliens, T., Deforche, B., De Bourdeaudhuij, I., & Clarys, P. (2015). Determinants of physical activity and sedentary behaviour in university students: A qualitative study using focus group discussions. *BMC Public Health*, 15(1), 1-9. <https://doi.org/10.1186/s12889-015-1553-4>
- Doolittle, P. E. (2014). Complex constructivism: A theoretical model of complexity and cognition. *International Journal of Teaching and Learning in Higher Education*, 26(3), 485-498. <https://eric.ed.gov/?id=EJ1060852>
- Furner, J. (2004). Conceptual analysis: A method for understanding information as evidence, and evidence as information. *Archival Science*, 4(3-4), 233-265. <https://doi.org/10.1007/s10502-005-2594-8>
- Gilakjani, A. P., Leong, L. M., & Ismail, H. N. (2013). Teachers' use of technology and constructivism. *International Journal of Modern Education & Computer Science*, 5(4), 49-63. <https://doi.org/10.5815/ijmeecs.2013.04.07>
- Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing student engagement using the flipped classroom. *Journal of Nutrition Education and Behavior*, 47(1), 109-114. <https://doi.org/10.1016/j.jneb.2014.08.008>
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. Sage publications.
- Graber, C. R. (2009). *Factors that are predictive of student achievement outcomes and an analysis of these factors in high-poverty schools versus low-poverty schools*. Lindenwood University.
- Guo, S., Cockburn-Wooten, C., & Munshi, D. (2014). Negotiating diversity: Fostering collaborative interpretations of case studies. *Business and Professional Communication Quarterly*, 77(2), 169-182. <https://doi.org/10.1177%2F2329490614530464>
- Gupta, M. L. (2004). Enhancing student performance through cooperative learning in physical sciences. *Assessment & Evaluation in Higher Education*, 29(1), 63-73. <https://doi.org/10.1080/0260293032000158162>
- Gurin, P., Dey, E., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, 72(3), 330-367. <https://doi.org/10.17763/haer.72.3.01151786u134n051>
- Hazelrigg, L. E. (1986). Is there a choice between "Constructionism" and "Objectivism"? *Social Problems*, 33(6), s1-s13. <https://doi.org/10.2307/800671>
- Heimtun, B., & Morgan, N. (2012). Proposing paradigm peace: Mixed methods in feminist tourism research. *Tourist Studies*, 12(3), 287-304. <https://dx.doi.org/10.4135/9781506326139.n708>
- Kalina, C., & Powell, K. C. (2009). Cognitive and social constructivism: Developing tools for an effective classroom. *Education*, 130(2), 241-250.



- Kalpana, T. (2014). A constructivist perspective on teaching and learning: A conceptual framework. *International Research Journal of Social Sciences*, 3(1), 27-29.
- Kearney, M., & Treagust, D. F. (2001). Constructivism as a referent in the design and development of a computer program using interactive digital video to enhance learning in physics. *Australasian Journal of Educational Technology*, 17(1), 64-79. <https://doi.org/10.14742/ajet.1773>
- Kim, B. (2001). Social constructivism. *Emerging Perspectives on Learning, Teaching, and Technology*, 1(1), 16.
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26-41. <https://doi.org/10.5430/ijhe.v6n5p26>
- Knoblauch, H., & Wilke, R. (2016). The common denominator: The reception and impact of Berger and Luckmann's *The Social Construction of Reality*. *Human Studies*, 39(1), 51-69. <https://doi.org/10.1007/s10746-016-9387-3>
- Kukla, A. (2013). *Social constructivism and the philosophy of science*. Routledge. <https://doi.org/10.4324/9780203130995>
- Lynch, M. E. (2019). The Sociology of Science and Social Constructivism. In *The Routledge Handbook of Social Epistemology* (pp. 220-229). Routledge. <https://doi.org/10.4324/9781315717937>
- Mackenzie, N. & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues In Educational Research*, 16, 1-15.
- Mahenthiran, S. & Rouse, P. (2000). The impact of group selection on student performance and satisfaction. *International Journal of Educational Management*, 14(6), 255-264. <https://doi.org/10.1108/09513540010348043>
- Mamas, C., Daly, A. J., & Schaelli, G. H. (2019). Socially responsive classrooms for students with special educational needs and disabilities. *Learning, Culture and Social Interaction*, 23, 100334. <https://doi.org/10.1016/j.lcsi.2019.100334>
- McKinley, J. (2015). Critical argument and writer identity: Social constructivism as a theoretical framework for EFL academic writing. *Critical Inquiry in Language Studies*, 12(3), 184-207. <https://doi.org/10.1080/15427587.2015.1060558>
- Muro, M., & Jeffrey, P. (2008). A critical review of the theory and application of social learning in participatory natural resource management processes. *Journal of Environmental Planning and Management*, 51(3), 325-344. <https://doi.org/10.1080/09640560801977190>
- Omodan B. I. & Tsotetsi C. T. (2020). Decolonisation of knowledge construction in university classrooms: The place of social constructivism. *Journal of Gender, Information and Development in Africa*, 9(2), 183-204. <https://doi.org/10.31920/2634-3622/2020/9n2a10>
- Omodan, B. I. & Tsotetsi, C. T. (2018). Student-teacher relationships as panacea for students' academic performance in Nigeria secondary schools: An attachment perspective. *Journal of Social Studies Education Research*, 9 (4), 82-101. <https://files.eric.ed.gov/fulltext/EJ1199100.pdf>
- Pass, S. (2004). *Parallel paths to constructivism: Jean Piaget and Lev Vygotsky*. IAP.
- Pengpid, S., Peltzer, K., Kassean, H. K., Tsala, J. P. T., Sychareun, V., & Müller-Riemenschneider, F. (2015). Physical inactivity and associated factors among university students in 23 low-, middle-and high-income countries. *International Journal of Public Health*, 60(5), 539-549. <https://doi.org/10.1007/s00038-015-0680-0>
- Saeed, S., & Zyngier, D. (2012). How motivation influences student engagement: A qualitative case study. *Journal of Education and Learning*, 1(2), 252-267. <https://eric.ed.gov/?id=EJ1081372>
- Schreiber, L. M., & Valle, B. E. (2013). Social constructivist teaching strategies in the small group classroom. *Small Group Research*, 44(4), 395-411. <https://doi.org/10.1177%2F1046496413488422>



- Schreiber, L. M., & Valle, B. E. (2013). Social constructivist teaching strategies in the small group classroom. *Small Group Research*, 44(4), 395-411. <https://doi.org/10.1177%2F1046496413488422>
- Siebenaler, D. J. (1997). Analysis of teacher-student interactions in the piano lessons of adults and children. *Journal of Research in Music Education*, 45(1), 6-20. <https://doi.org/10.2307%2F3345462>
- Suliwa, Widodo, W., & Munasir. (2021). Influence of LKPD to facilitate cooperative group investigation in improving students' science process skills. *Studies in Learning and Teaching*, 2(3), 73-85. <https://doi.org/10.46627/silet.v2i3.85>
- Telzrow, C. F., McNamara, K., & Hollinger, C. L. (2000). Fidelity of problem-solving implementation and relationship to student performance. *School Psychology Review*, 29(3), 443-461. <https://doi.org/10.1080/02796015.2000.12086029>
- Topor, D. R., Keane, S. P., Shelton, T. L., & Calkins, S. D. (2010). Parent involvement and student academic performance: A multiple mediational analysis. *Journal of Prevention & Intervention in the Community*, 38(3), 183-197. <https://doi.org/10.1080/10852352.2010.486297>
- Turner J. C., Christensen A., Meyer D. K. (2009) Teachers' Beliefs about Student Learning and Motivation. In: Saha L. J., Dworkin A. G. (eds.) *International Handbook of Research on Teachers and Teaching*. Springer International Handbooks of Education, vol 21. Springer. https://doi.org/10.1007/978-0-387-73317-3_23
- Van Hover, S., & Hicks, D. (2017). Social constructivism and student learning in social studies. *The Wiley Handbook of Social Studies Research*, 270-318.
- Viyayanti, & Dwikoranto. (2021). Make a match techniques in cooperative learning: innovations to improve student learning outcomes, student learning activities and teacher performance. *Studies in Learning and Teaching*, 2(2), 35-46. <https://doi.org/10.46627/silet.v2i2.74>
- Voghoei, S., Tonekaboni, N. H., Yazdansepas, D., & Arabnia, H. R. (2019, December). University online courses: Correlation between students' participation rate and academic performance. In 2019 *International Conference on Computational Science and Computational Intelligence (CSCI)* (pp. 772-777). IEEE. <https://doi.org/10.1109/CSCI49370.2019.00147>
- Weaver, R. G., Webster, C. A., Beets, M. W., Brazendale, K., Chandler, J., Schisler, L., & Aziz, M. (2018). Initial outcomes of a participatory-based, competency-building approach to increasing physical education teachers' physical activity promotion and students' physical activity: A pilot study. *Health Education & Behavior*, 45(3), 359-370. <https://doi.org/10.1177/1090198117731600>
- Zepke, N. (2015). Student engagement research: Thinking beyond the mainstream. *Higher Education Research & Development*, 34(6), 1311-1323. <https://doi.org/10.1080/07294360.2015.1024635>
- Zubiri-Esnaola, H., Vidu, A., Rios-Gonzalez, O., & Morla-Folch, T. (2020). Inclusivity, participation and collaboration: Learning in interactive groups. *Educational Research*, 62(2), 162-180. <https://doi.org/10.1080/00131881.2020.1755605>
-

Author (s):

*Bunmi Isaiah Omodan (Corresponding Author)
CAPTD, Faculty of Education, Butterworth Campus,
Walter Sisulu University,
Republic of South Africa.
Email: bomodan@wsu.ac.za

