



Instructional leadership and student engagement in entrepreneurial learning: Evidence from higher institutions in Delta State

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Abstract

This study aimed at instructional leadership and student engagement in entrepreneurial learning. The study used a survey research design. The purposive sampling technique was used to select the ten institutions and 350 respondents. The validity of the instrument was tested through expert review. Cronbach's Alpha was used to test reliability, and all values were above 0.70. The study used descriptive statistics and inferential statistics to analyze the data. Descriptive statistics were used to summarize the demographics of the respondents. Regression analysis was used to test the hypotheses at a level of significance of 5% (0.05). Findings showed that instruction supervision has a significant positive effect on students' behavioral engagement in entrepreneurial learning. Finding further showed that teacher professional development has a significant positive effect on students' emotional engagement in entrepreneurial learning. The study concluded that instructional leadership plays an important role in shaping student engagement in entrepreneurial learning in higher institutions. The study recommended that higher institutions should strengthen instruction supervision through regular classroom monitoring and feedback to improve students' active participation in entrepreneurial learning activities, and that school management should support continuous teacher professional development through workshops, seminars, and modern teaching skill acquisition to increase students' motivation toward entrepreneurship education.

Keywords: Behavioral engagement, Creative engagement, Critical thinking, Emotional engagement, Instruction supervision, Teacher professional development.

JEL Classification: D23; M12.

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Contribution of this paper to the literature

The study used inferential statistics for empirical investigation. This study is the first to scientifically establish that instructional supervision, teacher professional development, and critical thinking are key factors that improve different forms of student engagement.

1. Introduction

Instructional leadership has become an important aspect of educational management because it helps to improve teaching quality, student learning, and active participation in educational activities (Ng, 2019; Townsend, 2019). In higher institutions, instructional leadership supports effective teaching, supervision of learning activities, teacher development, and innovative learning practices that can improve students' engagement in entrepreneurial learning (Gawlik, 2018; Munna, 2023). Entrepreneurial learning is important because it helps students develop creativity, innovation, critical thinking, and practical business skills needed for self-reliance and economic development (Bell & Bell, 2020; Meung, 2023; Shattock, 2020). Studies have shown that effective instructional leadership improves learning outcomes, student participation, and academic development (Leithwood, Sun, & Schumacker, 2020; Ng, 2019). In the same way, entrepreneurial learning helps students become more innovative and creative in solving real-life problems (Bell & Bell, 2020; Meung, 2023). Student engagement is therefore important because entrepreneurial learning becomes more effective when students actively participate, show interest, and contribute creatively during learning activities. Research has also shown that engaged students are more likely to perform better academically and develop entrepreneurial abilities (Amao-Taiwo & Ekpe-Iko, 2021; Assefa, Fetene, & Wolle, 2025).

The concept of instructional leadership is based on the ability of educational leaders and lecturers to guide teaching and learning activities toward better student outcomes (Akomodi, 2025; Ng, 2019). It focuses on practices such as instruction supervision, teacher professional development, and the promotion of critical thinking among students. Instruction supervision helps lecturers monitor classroom activities, improve teaching methods, and ensure that students participate actively during learning (Davis & Boudreaux, 2019; Mestry, 2017). This can improve students' behavioral engagement through active involvement in entrepreneurial projects, discussions, and practical exercises. Teacher professional development is also important because it helps lecturers gain better teaching skills, modern instructional methods, and innovative approaches that can increase students' emotional attachment and interest in entrepreneurial learning (Pambudi & Gunawan, 2019; Zheng, Yin, & Li, 2019). In addition, critical thinking helps students analyze problems, identify opportunities, and develop creative ideas during entrepreneurial learning. Studies have shown that critical thinking improves innovation, creativity, and students' learning outcomes in higher education (Bhuttah, Xusheng, Abid, & Sharma, 2024; Suyudi, Suyatno, Rahmatullah, Rachmawati, & Hariyati, 2022).

Although many studies have examined instructional leadership and student engagement, most of the studies were conducted outside Nigeria or focused on secondary schools and general educational outcomes. For example, studies by Gawlik (2018), Zheng et al. (2019), Leithwood et al. (2020), Assefa et al. (2025), and Nisar, Hoon, Khairuddin, and Nabeel (2025) examined instructional leadership and student engagement in foreign educational settings. Similarly, Bell and Bell (2020), Meung (2023), Bhuttah et al. (2024), and Bajarias et al. (2025) focused on entrepreneurial learning and innovation outside the Nigerian context. There is still limited research on instructional leadership and student engagement in entrepreneurial learning among higher institutions in Nigeria, especially in Delta State. In many higher institutions in Delta State, entrepreneurship education still faces challenges such as low student participation, poor interest in entrepreneurial activities, and weak creative involvement among students. Some students attend entrepreneurship classes mainly to fulfill academic requirements without showing strong commitment or innovative thinking. In some cases, inadequate supervision of instruction, limited lecturer development programmes, and poor encouragement of critical thinking may affect students' engagement in entrepreneurial learning. Previous studies have examined instructional leadership and teacher effectiveness (Akomodi, 2025; Gawlik, 2018), while others focused on entrepreneurial education and innovation (Bajarias et al., 2025; Enebe, Heystek, & Matashu, 2025a). However, few studies have examined how instruction supervision affects behavioral engagement, how teacher professional development affects emotional engagement, and how critical thinking affects creative engagement among students in higher institutions within Delta State. Based on this gap, this study focuses on instructional leadership and student engagement in entrepreneurial learning among higher institutions in Delta State. The study is important because it will help explain how instructional leadership practices can improve students' participation, interest, and creativity in entrepreneurial learning within higher institutions in Delta State.

1.1. Objectives of the Study

The specific objectives of the study are to:

- i. Determine the effect of instruction supervision on the behavioral engagement of students.
- ii. Ascertain the effect of teacher professional development on the emotional engagement of students.
- iii. Assess the effect of critical thinking on the creative engagement of students.

2. Literature Review and Hypothesis Development

2.1. Instruction Supervision and Behavioral Engagement

Through proper supervision, lecturers are guided to apply teaching strategies that encourage students to participate actively in entrepreneurial learning activities. Behavioral engagement involves students' attendance, participation in discussions, involvement in practical tasks, and commitment to classroom activities. In entrepreneurship education, behavioral engagement is important because students learn better when they actively participate in business simulations, group projects, and innovative activities. Instructional leaders who supervise teaching activities regularly are more likely to identify weaknesses in classroom delivery and improve the learning environment. According to Ng (2019), instructional supervision helps maintain quality teaching standards and ensures that learning objectives are achieved effectively. Akomodi (2025) also explained that supervision of instruction improves students' learning experiences because lecturers become more focused on students' participation

and academic progress. Similarly, Wieczorek and Manard (2018) noted that effective instructional supervision supports classroom practices that encourage learner involvement and participation.

In entrepreneurship education, supervision helps ensure that lecturers adopt practical and experiential teaching approaches that can increase students' active involvement. Bell and Bell (2020) emphasized that experiential learning methods improve students' participation because they expose learners to practical entrepreneurial experiences. Suyudi et al. (2022) further explained that supportive instructional practices improve student satisfaction and participation during learning activities. Studies by Leithwood et al. (2020) and Nisar et al. (2025) also showed that instructional leadership positively influences student engagement through effective learning coordination and monitoring. Entrepreneurial learning requires continuous interaction, idea sharing, and participation from students. Enebe, Heystek, and Matashu (2025b) argued that instructional leadership strengthens entrepreneurship education implementation by improving teaching supervision and learning support systems. Therefore, we hypothesized that:

H₁: Instruction supervision has a positive effect on behavioral engagement of students.

2.2. Teacher Professional Development and Emotional Engagement

Teacher professional development is an important practice in educational institutions because it helps lecturers improve their teaching skills, knowledge, and classroom effectiveness. It involves activities such as training, workshops, mentoring, seminars, and continuous learning programmes that support better instructional delivery. Studies show that teacher professional development improves teaching quality and strengthens students' learning experiences (Pambudi & Gunawan, 2019; Zheng et al., 2019). It also helps lecturers adopt innovative and student-centered teaching methods that can improve students' interest and participation in learning activities (Munna, 2023; Townsend, 2019). Professional development is important because lecturers need practical and creative teaching approaches that can motivate students and improve their emotional attachment to entrepreneurial learning. Emotional engagement refers to students' interest, enthusiasm, and positive feelings toward classroom activities and learning experiences.

Research has shown that teacher professional development is associated with improved emotional engagement among students in higher education. Lecturers who receive adequate training are more likely to use interactive and innovative teaching methods that make learning more enjoyable and meaningful for students (Suyudi et al., 2022). Similarly, Bell and Bell (2020) explained that experiential teaching approaches increase students' interest and emotional connection to entrepreneurial learning activities. Meung (2023) also noted that innovative teaching practices encourage creativity and improve students' enthusiasm toward entrepreneurship education. However, when lecturers lack professional development opportunities, students may experience less motivation and weaker emotional attachment to learning activities. In some institutions, outdated teaching methods and limited lecturer training reduce students' interest and participation during entrepreneurial learning. Assefa et al. (2025) found that supportive and student-centered leadership practices improve students' emotional involvement in higher education. In the same way, Nisar et al. (2025) reported that effective instructional leadership positively influences student engagement through improved teaching support and learning practices. Thus, we formulate a hypothesis that:

H₂: Teacher professional development has a positive effect on emotional engagement of students.

2.3. Critical Thinking and Creative Engagement

For higher institutions, critical thinking is very important because it helps students to understand concepts deeply, solve problems, and generate new entrepreneurial ideas. In entrepreneurial learning, students are expected to think beyond memorization and actively engage in idea development, opportunity identification, and problem-solving tasks. Critical thinking supports creative engagement because it allows students to produce new and useful ideas during learning activities. Studies show that students who develop strong thinking skills are more likely to engage actively in learning tasks and perform better in innovation-based courses (Bhuttah et al., 2024). It also improves how students analyze real-life business situations and develop solutions in entrepreneurial education (Bell & Bell, 2020).

Research has shown that critical thinking is strongly linked to students' creative engagement in higher education. When students are trained to think critically, they become more active in generating ideas and participating in creative tasks during learning activities (Suyudi et al., 2022). Meung (2023) also explained that entrepreneurial education that encourages independent thinking helps students to develop creativity and innovation skills. In the same way, instructional environments that support inquiry-based learning improve students' ability to think creatively and solve problems (Ng, 2019; Townsend, 2019). Instructional leadership also plays an indirect role in improving critical thinking through teaching strategies and learning support systems. Leaders who encourage innovative teaching methods help lecturers create classroom environments that support questioning, analysis, and idea generation (Zheng et al., 2019). Enebe et al. (2025b) noted that entrepreneurship education becomes more effective when instructional leaders promote constructivist and student-centered approaches that build thinking skills. However, when teaching is too traditional and teacher-centered, students may struggle to develop critical thinking skills, which can reduce their creative engagement in learning activities. Assefa et al. (2025) also found that student-centered leadership practices improve student engagement by encouraging participation and creativity in learning environments. Hence, we hypothesized that:

H₃: Critical thinking has a positive effect on creative engagement of students.

3. Methodology

The study used a survey research design to collect data on instructional leadership and student engagement in entrepreneurial learning among higher institutions in Delta State. The survey was carried out among students in ten selected higher institutions offering entrepreneurship-related courses and programmes. The respondents were asked to respond to a set of structured questions focusing on instruction supervision, teacher professional development, critical thinking, behavioral engagement, emotional engagement, and creative engagement. The students were considered suitable for the study because they actively participate in entrepreneurial learning activities within their institutions. The purposive sampling technique was used to select the ten institutions and 350

respondents relevant to the study objectives. The study focused on students who had experience in entrepreneurship education and related practical learning activities. The selected institutions included universities, polytechnics, and colleges of education across different parts of Delta State.

The study used a structured questionnaire to collect data on instructional leadership and student engagement in entrepreneurial learning. The questionnaire covered areas such as instruction supervision, teacher professional development, critical thinking, behavioral engagement, emotional engagement, and creative engagement. These variables were formed into simple questions based on ideas from earlier studies on instructional leadership, entrepreneurship education, and student engagement (Assefa et al., 2025; Bell & Bell, 2020; Ng, 2019). All questionnaire items were measured using a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). The validity of the instrument was tested through expert review to ensure that the questionnaire measured the intended variables. Cronbach's Alpha was used to test reliability, and all values were above 0.70, which showed that the instrument was reliable. A pilot study was also carried out to improve the clarity and suitability of the questionnaire before the final data collection.

Table 1. Reliability of the instrument.

S/N	Variables	Items	Results (α)
1	Instruction Supervision	5	0.715
2	Teacher Professional Development	5	0.825
3	Critical Thinking	5	0.798
4	Behavioral Engagement	5	0.750
5	Emotional Engagement	5	0.784
6	Creative Engagement	5	0.816

Table 1 shows the reliability results of the study variables using Cronbach's alpha. The results indicate that all the variables met the acceptable reliability standard because their values were above the minimum threshold of 0.70. Instruction Supervision had a reliability value of 0.715, Teacher Professional Development had 0.825, while Critical Thinking recorded 0.798. Also, Behavioral Engagement had a reliability value of 0.750, Emotional Engagement had 0.784, and Creative Engagement recorded 0.816. These results show that the questionnaire items used to measure each variable were internally consistent and reliable for the study. The results therefore confirm that the instrument was suitable for collecting data on instructional leadership and student engagement in entrepreneurial learning among higher institutions in Delta State.

The study used descriptive statistics and inferential statistics to analyze the data. Descriptive statistics were used to summarize the demographics of the respondents. Regression analysis was used to test the hypotheses at a level of significance of 5% (0.05). This method was suitable for examining the effect of instruction supervision on behavioral engagement, the effect of teacher professional development on emotional engagement, and the effect of critical thinking on creative engagement.

Table 2. Demographic characteristics of respondents.

Demo.	Frequencies	Percent
Gender		
Female	175	50.0
Male	175	50.0
Age		
16–20 years	45	12.9
21–25 years	191	54.6
26–30 years	78	22.3
> 31 years	36	10.3
Institutions		
University	117	33.4
Polytechnic	117	33.4
College of Education	116	33.1
Faculty/School		
Management Sciences	101	28.9
Education	67	19.1
Social Sciences	98	28.0
Others	84	24.0
Exposure to Entrepreneurial Learning		
< 1 year	56	16.0
1–2 years	82	23.4
3–4 years	152	43.4
> 4 years	60	17.1

Source: Field Survey (2025).

4. Data Analysis

Table 2 presents the demographic characteristics of the respondents. The gender distribution shows a balanced representation with 175 males and 175 females, each making up 50.0%. This indicates that the study did not favor one gender over the other. In terms of age, most respondents were within the 21–25 years category (54.6%), followed by 26–30 years (22.3%), 16–20 years (12.9%), and those above 31 years (10.3%). This shows that the majority of the respondents are young adults, which is typical of students in higher institutions.

Regarding institutional type, respondents were almost evenly distributed across universities (33.4%), polytechnics (33.4%), and colleges of education (33.1%), showing equal representation of different higher education settings. For faculty distribution, students were mainly from Management Sciences (28.9%) and Social Sciences (28.0%), followed by Education (19.1%) and other fields. This suggests that respondents came from diverse academic

backgrounds. In terms of exposure to entrepreneurial learning, most respondents had 3–4 years of experience (43.4%), followed by 1–2 years (23.4%), more than 4 years (17.1%), and less than 1 year (16.0%). This indicates that most respondents had sufficient exposure to entrepreneurial education, making their responses relevant for the study.

Table 3. Instruction supervision and behavioral engagement.

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	0.593	0.088	6.772	0.001
INS	0.858	0.023	37.007	0.001
R-squared	0.797	Mean dependent var		3.591
Adjusted R-squared	0.797	S.D. dependent var		1.378
S.E. of regression	0.621	Akaike info criterion		1.891
Sum squared resid	134.252	Schwarz criterion		1.913
Log likelihood	-328.941	Hannan-Quinn criter.		1.900
F-statistic	1369.489	Durbin-Watson stat		1.559
Prob(F-statistic)	0.001			

Table 3 shows the regression result on the effect of instruction supervision on students’ behavioral engagement. The result indicates that instruction supervision has a positive and significant effect on behavioral engagement ($\beta = 0.858$, $t = 37.007$, $p = 0.001$). This means that an increase in instruction supervision leads to a strong increase in students’ behavioral engagement in entrepreneurial learning. The constant value (0.593) shows the level of behavioral engagement when instruction supervision is zero. The R-squared value of 0.797 indicates that about 79.7% of the variation in students’ behavioral engagement is explained by instruction supervision, while the remaining 20.3% is explained by other factors not included in the model. The F-statistic value of 1369.489 with a probability of 0.001 shows that the overall model is statistically significant. The Durbin-Watson value of 1.559 suggests a mild level of positive autocorrelation but still within an acceptable range for social science research. The result shows that instruction supervision is a strong predictor of students’ behavioral engagement in entrepreneurial learning.

Table 4. Teacher professional development and emotional engagement.

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	0.562	0.091	6.153	0.001
TPD	0.857	0.023	37.103	0.001
R-squared	0.798	Mean dependent var		3.777
Adjusted R-squared	0.798	S.D. dependent var		1.190
S.E. of regression	0.536	Akaike info criterion		1.595
Sum squared resid	99.803	Schwarz criterion		1.617
Log likelihood	-277.050	Hannan-Quinn criter.		1.603
F-statistic	1376.663	Durbin-Watson stat		1.793
Prob(F-statistic)	0.001			

Table 4 shows the regression result on the effect of teacher professional development on students’ emotional engagement. The result indicates that teacher professional development has a positive and significant effect on emotional engagement ($\beta = 0.857$, $t = 37.103$, $p = 0.001$). This means that improvement in teacher professional development leads to an increase in students’ emotional engagement in entrepreneurial learning. The constant value (0.562) shows the level of emotional engagement when teacher professional development is absent or zero. The R-squared value of 0.798 shows that about 79.8% of the variation in students’ emotional engagement is explained by teacher professional development, while about 20.2% is explained by other factors not captured in the model. The F-statistic value of 1376.663 with a probability of 0.001 shows that the model is statistically significant and fits the data well. The Durbin-Watson value of 1.793 indicates that there is no serious autocorrelation problem in the model. The result shows that teacher professional development is a strong and significant predictor of students’ emotional engagement in entrepreneurial learning.

Table 5. Critical thinking and creative engagement.

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	0.940	0.145	6.471	0.001
CTG	0.719	0.039	18.283	0.001
R-squared	0.490	Mean dependent var		3.443
Adjusted R-squared	0.488	S.D. dependent var		1.274
S.E. of regression	0.911	Akaike info criterion		2.657
Sum squared resid	288.876	Schwarz criterion		2.679
Log likelihood	-463.040	Hannan-Quinn criter.		2.666
F-statistic	334.272	Durbin-Watson stat		2.118
Prob(F-statistic)	0.001			

Table 5 shows the regression result on the effect of critical thinking on students’ creative engagement. The result reveals that critical thinking has a positive and significant effect on creative engagement ($\beta = 0.719$, $t = 18.283$, $p = 0.001$). This means that an increase in students’ critical thinking leads to an increase in their creative engagement in entrepreneurial learning. The constant value (0.940) represents the level of creative engagement when critical thinking is absent or zero. The R-squared value of 0.490 shows that about 48.9% of the variation in students’ creative engagement is explained by critical thinking, while about 51.1% is explained by other factors not included in the model. The F-statistic value of 334.272 with a probability of 0.001 indicates that the model is statistically significant and fits the data well. The Durbin-Watson value of 2.118 shows that there is no serious autocorrelation problem in

the model. The result shows that critical thinking is a significant predictor of students' creative engagement in entrepreneurial learning, although its explanatory power is moderate compared to the other variables.

5. Discussion

H₁: Instruction supervision has a positive effect on behavioral engagement of students.

Findings show that instruction supervision has a significant positive effect on students' behavioral engagement in entrepreneurial learning. This means that when lecturers or instructional leaders closely monitor teaching activities, guide classroom delivery, and ensure proper lesson execution, students are more likely to participate actively in learning tasks such as discussions, group work, and entrepreneurial projects. This finding supports Mestry (2017), who found that effective supervision of instruction by school leaders improves learner participation and academic engagement because teachers are better guided to deliver lessons that involve students. Also, Davis and Boudreaux (2019) reported that strong instructional leadership practices, such as classroom observation and feedback, help teachers improve their teaching methods, which increases student involvement in learning activities. Similarly, Gawlik (2018) noted that principals who actively supervise instruction create a learning culture where students are more engaged and responsive in class. In entrepreneurship education, instructional supervision is even more important because it ensures that practical and activity-based teaching methods are used. Suyudi et al. (2022) found that instructional leadership and creative teaching improve student actualization and participation, especially when teaching is well monitored and guided. The finding confirms that instruction supervision is an important factor in promoting students' behavioral engagement because it improves teaching quality, encourages active learning, and creates a structured environment where students participate more in entrepreneurial learning activities.

H₂: Teacher professional development has a positive effect on emotional engagement of students.

Findings show that teacher professional development has a significant positive effect on students' emotional engagement in entrepreneurial learning. This means that when lecturers are exposed to continuous training, workshops, and skill improvement programmes, students tend to show higher interest, motivation, and emotional connection to learning activities. This result is consistent with earlier studies that link teacher development to improved learning experiences. Ng (2019) explained that instructional leadership supports continuous teacher learning, which helps improve classroom practices and makes learning more engaging for students. Mestry (2017) also noted that when teachers are professionally developed, they become more confident in their teaching roles, and this helps to build stronger learner interest and emotional involvement in classroom activities. In addition, Davis and Boudreaux (2019) found that instructional leadership practices that focus on teacher growth improve teaching quality and classroom interaction, which in turn increases positive student attitudes toward learning. In the context of entrepreneurship education, teacher professional development is especially important because it helps lecturers adopt practical and student-centred teaching approaches. Pambudi and Gunawan (2019) discovered that continuous teacher training improves instructional competence and helps teachers respond better to student needs, which increases student motivation and emotional participation. Similarly, Enebe et al. (2025b) highlighted that strong instructional leadership strengthens teacher capacity, which improves the delivery of entrepreneurship education and encourages higher student interest and involvement. The finding confirms that teacher professional development is an important factor in improving students' emotional engagement because it strengthens teaching quality, builds teacher confidence, and creates a more supportive and motivating learning environment.

H₃: Critical thinking has a positive effect on creative engagement of students.

Finding shows that critical thinking has a significant positive effect on students' creative engagement in entrepreneurial learning. This means that when students are able to analyze problems deeply, question ideas, and evaluate different solutions, they become more active in generating new and creative ideas during learning activities. This finding supports the view that critical thinking is a key driver of creativity in learning environments. It is consistent with the finding of Meung (2023) that entrepreneurial education fosters creativity and innovation when students are exposed to learning environments that challenge them to think deeply and make decisions. Bhuttah et al. (2024) found that critical thinking significantly improves students' learning outcomes and creativity, especially when supported by effective leadership and innovative teaching methods. The finding confirms that critical thinking is an important factor in enhancing students' creative engagement because it helps them generate ideas, solve problems, and actively participate in entrepreneurial learning activities.

6. Conclusion

In conclusion, the study confirms that instructional leadership plays an important role in shaping student engagement in entrepreneurial learning in higher institutions. The study shows that when teaching activities are properly guided, monitored, and structured, students become more active in class participation, discussions, and practical entrepreneurial tasks. Also, when lecturers receive continuous training and skill improvement, students show higher interest, motivation, and emotional attachment to entrepreneurial learning because teaching becomes more effective and supportive. Critical thinking can enhance students' creative engagement. That is, students who are trained to think deeply, question ideas, and evaluate solutions are more likely to generate new and innovative ideas in entrepreneurial activities. The summary is that instructional supervision, teacher professional development, and critical thinking are key factors that improve different forms of student engagement.

7. Recommendations

The study recommended that:

- i. Higher institutions should strengthen instruction supervision through regular classroom monitoring and feedback to improve students' active participation in entrepreneurial learning activities.
- ii. School management should support continuous teacher professional development through workshops, seminars, and modern teaching skill acquisition to increase students' motivation toward entrepreneurship education.
- iii. Curriculum planners should integrate critical thinking tasks into entrepreneurial courses to support students' ability to produce innovative solutions.

References

- Akomodi, J. O. (2025). In-depth analysis: The importance of instructional leadership in education. *Open Journal of Leadership*, 14(2), 177-193. <https://doi.org/10.4236/ojl.2025.142008>
- Amao-Taiwo, B., & Ekpe-Iko, G. (2021). Student engagement in entrepreneurship education programs: Implications for entrepreneurial skills development in universities. *Journal of African Employment, Entrepreneurship and Skills Development, Special Issue*, 76-90.
- Assefa, Y., Fetene, G. T., & Wolle, G. S. (2025). Revitalising a student-centred leadership: Modelling the influence of teacher leadership behaviours on student engagement in higher education. *International Journal of Educational Management*, 39(7), 1810-1829. <https://doi.org/10.1108/IJEM-08-2025-0649>
- Bajarias, A. J., Pacubas, C., Payod, E., Gabuya, F., Yamagishi, K., & Ybáñez, A. P. (2025). From organization to enterprise: The institutional factors shaping student entrepreneurial engagement in higher education. *Journal of Cultural Analysis and Social Change*, 11(1), 129-141. <https://doi.org/10.64753/jcasc.v11i1.3355>
- Bell, R., & Bell, H. (2020). Applying educational theory to develop a framework to support the delivery of experiential entrepreneurship education. *Journal of Small Business and Enterprise Development*, 27(6), 987-1004. <https://doi.org/10.1108/JSBED-01-2020-0012>
- Bhuttah, T. M., Xusheng, Q., Abid, M. N., & Sharma, S. (2024). Enhancing student critical thinking and learning outcomes through innovative pedagogical approaches in higher education: The mediating role of inclusive leadership. *Scientific Reports*, 14, 24362. <https://doi.org/10.1038/s41598-024-75379-0>
- Davis, F., & Boudreaux, M. K. (2019). Teacher leaders' perceptions of charter school principals' instructional leadership practices. *Journal of Educational Research and Practice*, 9(1), 89-103. <https://doi.org/10.5590/JERAP.2019.09.1.07>
- Enebe, N. B., Heystek, J., & Matashu, M. (2025a). Key determinants of instructional leadership in advancing entrepreneurship education implementation in senior phase schools, North West Province, South Africa. *Interdisciplinary Journal of Education Research*, 7(1), a18. <https://doi.org/10.38140/ijer-2025.vol7.1.18>
- Enebe, N. B., Heystek, J., & Matashu, M. (2025b). Roles of instructional leadership in the improved implementation of the entrepreneurship education curriculum in the senior phase in South Africa. *Journal of Education*(99), 66-85. <https://doi.org/10.17159/2520-9868/i99a04>
- Gawlik, M. (2018). Instructional leadership and the charter school principal. *School Leadership & Management*, 38(5), 539-565. <https://doi.org/10.1080/13632434.2018.1439467>
- Leithwood, K., Sun, J., & Schumacker, R. (2020). How school leadership influences student learning: A test of "The four paths model". *Educational Administration Quarterly*, 56(4), 570-599. <https://doi.org/10.1177/0013161X19878772>
- Mestry, R. (2017). Principals' perspectives and experiences of their instructional leadership functions to enhance learner achievement in public schools. *Journal of Education*(69), 257-280.
- Meung, H. (2023). Entrepreneurial leadership in education: Fostering innovation and creativity. *Journal of Asian Multicultural Research for Educational Study*, 4(3), 23-30.
- Munna, A. S. (2023). Instructional leadership and role of module leaders. *International Journal of Educational Reform*, 32(1), 38-54. <https://doi.org/10.1177/10567879211042321>
- Ng, F. S. D. (2019). Instructional leadership. In B. Wong, S. Hairon, and P. T. Ng (Eds.), *School leadership and educational change in Singapore* (pp. 7-30). Cham, Switzerland: Springer International Publishing.
- Nisar, S. K., Hoon, T. S., Khairuddin, A. Z., & Nabeel, A. (2025). Instrument validation: The impact of perceived instructional leadership on student engagement among the leaders of international schools of Jeddah, Saudi Arabia. *Social and Management Research Journal*, 22(1), 85-97. <https://doi.org/10.24191/smrj.v22i1.6705>
- Pambudi, B. A., & Gunawan, I. (2019). *Instructional leadership as an effort to increase teacher professionalism in the industrial revolution era 4.0*. Paper presented at the International Conference on Education and Management (COEMA 2019) (pp. 216-220). Atlantis Press.
- Shattock, M. (2020). *Entrepreneurial leadership in higher education*. In: Teixeira, P.N., Shin, J.C. (Eds) *The international encyclopedia of higher education systems and institutions*. Dordrecht: Springer Netherlands.
- Suyudi, M., Suyatno, Rahmatullah, A. S., Rachmawati, Y., & Hariyati, N. (2022). The effect of instructional leadership and creative teaching on student actualization: Student satisfaction as a mediator variable. *International Journal of Instruction*, 15(1), 113-134. <https://doi.org/10.29333/iji.2022.1517a>
- Townsend, T. (2019). *Instructional leadership and leadership for learning in schools: Understanding theories of leading*. Cham, Switzerland: Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-23736-3>
- Wieczorek, D., & Manard, C. (2018). Instructional leadership challenges and practices of novice principals in rural schools. *Journal of Research in Rural Education*, 34(2), 1-21.
- Zheng, X., Yin, H., & Li, Z. (2019). Exploring the relationships among instructional leadership, professional learning communities and teacher self-efficacy in China. *Educational Management Administration & Leadership*, 47(6), 843-859. <https://doi.org/10.1177/1741143218764176>