

Teacher Staffing and Cultivation of Self-Directed Learning.

A Case of Selected Secondary Schools in Buikwe Town Council, Buikwe District in Uganda

Stephen Kaziba

Esther Namugumya Lugoloobi

Abstract

This study investigated the influence of teacher staffing on the cultivation of self-directed learning (SDL) skills in selected secondary schools in Buikwe Town Council and South Constituency County of Buikwe District, Uganda. The specific objectives were: (i) to assess the influence of teacher qualification levels on the development of SDL outcomes; (ii) to explore the level of teacher engagement and its impact on students' SDL abilities; and (iii) to evaluate how professional practices contribute to or hinder the cultivation of SDL skills. The study adopted a cross-sectional survey design, employing both quantitative and qualitative approaches. A sample size of 135 respondents from a total population of 200 was selected using purposive and systematic sampling techniques. The findings revealed a significant positive correlation between teacher staffing and SDL outcomes ($r = 0.612$, $p < .001$), indicating that improved staffing practices are associated with better development of SDL skills among students. Specifically, teacher qualification levels significantly influenced SDL, as highly qualified teachers demonstrated a greater ability to foster SDL skills (mean = 4.13, SD = 1.091). Additionally, higher levels of teacher engagement, including feedback and interactive teaching methods, positively impacted students' ability to regulate and manage their own learning (mean = 4.27, SD = 0.946). Professional practices, such as mentorship programs and structured professional development, were also found to contribute significantly to the cultivation of SDL (mean = 4.42, SD = 0.764), while inadequate staffing and high teacher-student ratios hindered the achievement of SDL outcomes. The study concludes that improving teacher qualifications, fostering teacher engagement, and implementing robust professional development programs are essential for cultivating SDL skills among secondary school students. The study recommends that the government, through the Ministry of Education and Sports, prioritizes the recruitment of highly qualified teachers, invests in regular professional development initiatives, and reduces teacher-student ratios to enhance SDL outcomes in both government and private institutions. Further research is suggested to explore the long-term effects of teacher retention and professional development on SDL outcomes in diverse educational contexts.

Keywords: self-directed learning, teacher staffing, teacher qualification, professional development, competency based curriculum

1. Introduction

In 2020, the Ministry of Education and Sports (MoES) of Uganda, through the National Curriculum Development Centre (NCDC), launched a Competency-Based Curriculum (CBC) for lower secondary education, marking a strategic shift from traditional content-focused approaches to competency driven learning (MoES, 2020). This curriculum emphasises the development of learners' 21st-century skills, including communication, creativity, mathematical computation and ICT proficiency, critical thinking, problem-solving, collaboration, and self-directed learning (SDL). SDL is defined as the capacity of students to autonomously plan, manage, and evaluate their learning by setting goals, selecting appropriate activities, utilising resources, monitoring progress, and reflecting on outcomes (Knowles, 1975; Mugizi et al., 2022). These skills are critical for fostering learner independence and preparing students for lifelong learning in a rapidly evolving global environment.

Teachers play a pivotal role in cultivating SDL. Research has shown that teacher qualifications, engagement, and professional development significantly influence students' ability to learn autonomously (Onzi et al., 2023; Mugizi et al., 2022). Highly qualified teachers, particularly those with advanced academic credentials and professional certification, are more likely to implement instructional strategies that promote SDL, including inquiry-based learning, collaborative projects, and reflective practices (Darling-Hammond, 2017; Onzi et al., 2023). Likewise, teacher engagement manifested through interactive teaching methods, timely feedback, and responsive classroom practices enhances students' motivation, self-efficacy, and capacity for independent learning (Mugizi et al., 2022; Perry et al., 2024).

Professional practices, including structured mentorship programmes and continuous professional development (CPD), provide teachers with the knowledge, skills, and strategies necessary to support SDL. Empirical studies indicate that teachers engaged in ongoing CPD are more adept at fostering learner autonomy and self-regulation (Lee & Kim, 2024; Kousar et al., 2023). However, challenges such as high teacher turnover, inadequate staffing, and limited resources can hinder the effective implementation of SDL strategies, particularly in rural and under-resourced schools (Mugizi et al., 2022; Garcia & Martinez, 2023).

Despite the growing body of research on SDL and teacher effectiveness, there remains a paucity of studies that examine how teacher qualifications, engagement, and professional practices collectively influence SDL outcomes within the Ugandan CBC context, particularly in secondary schools in Buikwe District. Addressing this gap is essential to identify effective strategies that empower teachers, optimise learning environments, and ensure that students develop the autonomy and skills necessary for lifelong learning. This study, therefore, seeks to investigate the influence of teacher staffing, engagement, and professional practices on the cultivation of SDL among secondary school students, offering context-specific insights that can inform policy and practice in Uganda and similar educational settings.

This study is among the first in Uganda to examine the combined influence of teacher qualifications, engagement, and professional practices on the cultivation of self-directed learning within the Competency-Based Curriculum context. By integrating multiple teacher-related factors and focusing specifically on secondary schools in Buikwe District, the research provides context-specific insights that can inform

policy, improve teacher effectiveness, and enhance student autonomy in under-researched educational settings.

Statement of the problem

The Ministry of Education and Sports, through the National Curriculum Development Centre (NCDC), launched the Competency-Based Curriculum (CBC) in February 2020 for lower secondary education, emphasizing the development of essential 21st century skills. Among these, self-directed learning (SDL) is a core competency aimed at fostering learners' independence, goal setting capabilities, and the ability to manage their own learning, time, and objectives effectively.

However, the successful cultivation of SDL among students is closely linked to teacher staffing conditions, including teacher qualifications, professional development opportunities, teaching experience, teacher student ratios, and classroom organization. Preliminary data collected from selected secondary schools in Buikwe Town Council and South Constituency County indicate that teacher staffing challenges may limit the effective implementation of SDL-oriented pedagogy. For instance, the average teacher student ratio in some schools is 1:60, with only 45% of teachers holding the recommended professional qualifications, and only 30% participating in SDL focused professional development programs. Moreover, approximately 55% of teachers have five or more years of experience, while only 40% of classrooms meet the standards set for effective CBC implementation (Uganda Bureau of Statistics, 2022; Ajagbe, 2013; Kasule, 2016; Ministry of Education and Sports, 2016).

Despite these critical factors, there is limited empirical research examining how teacher staffing variables specifically influence students' SDL skills under the CBC. This gap hinders evidence-based policy and practice for optimizing teacher deployment and professional development to enhance SDL outcomes.

Addressing this gap, the present study investigates the influence of teacher staffing on the cultivation of self directed learning skills in selected secondary schools in Buikwe Town Council and South Constituency County. By empirically examining the relationships between teacher qualifications, engagement, professional practices, and SDL outcomes, the study provides actionable insights to guide policy and practice for the effective implementation of the CBC and the holistic development of students in alignment with 21st century learning objectives.

Specific objectives of the study

The objectives of the study were:

- (i) To assess the influence of teacher qualification levels on the development of self-directed learning outcomes.
- (ii) To explore the level of teacher engagement and its impact on students' self-directed learning abilities.
- (iii) To evaluate how professional practices contribute to or hinder the cultivation of self-directed learning skills.

1.5 Research question

The Research question for the study was:

How does the qualification level of teachers influence the development of self-directed learning outcomes?

2 Methodology

The study employed a cross-sectional survey design to examine the relationship between teacher staffing and self-directed learning (SDL) in selected secondary schools within Buikwe Town Council and Buikwe South Constituency, Uganda (Amin, 2005; Creswell & Creswell, 2018). A mixed-methods approach was adopted, combining structured questionnaires, semi-structured interviews, and observation checklists to gather both quantitative and qualitative data (Johnson & Onwuegbuzie, 2004).

The population comprised 200 respondents, including school administrators, teachers, and students, of which 132 were selected using purposive and systematic sampling (Krejcie & Morgan, 1970). Administrators and teachers were purposively sampled for their direct involvement in staffing and curriculum implementation, while students were systematically sampled to ensure representative coverage.

Quantitative data were analyzed using SPSS version 30, employing descriptive statistics and regression analyses to examine the relationships between teacher staffing variables (qualifications, experience, professional development, engagement) and SDL outcomes (Oslo & Onen, 2005). Qualitative data were analyzed thematically to identify patterns and contextual factors affecting SDL (Braun & Clarke, 2006). Validity was established through expert review, yielding a Content Validity Index of 0.89, while reliability was confirmed using pre-testing and Cronbach's Alpha values ranging from 0.737 to 0.908 (Cronbach, 1950). Ethical considerations included voluntary participation, informed consent, confidentiality, and respect for intellectual property. Limitations of the study included the restricted geographic focus, the cross-sectional design, and occasional unavailability of respondents.

Results and Discussion

The response rate for the study was notably high, with 125 out of 132 targeted respondents participating, representing a robust **94.7%** participation rate, indicating strong interest and willingness among administrators, teachers, and students to contribute to the study's objectives, consistent with recommended thresholds for analysis and reporting (Mugenda & Mugenda, 2010). Analysis of respondent demographics revealed a marked gender disparity, with males constituting **79%** and females only **21%**, reflecting broader trends of inequality in the educational landscape of the selected secondary schools in Buikwe Town Council. Such gender imbalances may stem from socio-economic and cultural factors, including entrenched norms and differential access to educational and professional opportunities, potentially influencing teacher staffing and professional practices related to self-directed learning (SDL). Age analysis showed that the majority of respondents ($n = 42$) were in the 31–40 years bracket, followed by 21–30 years ($n = 28$), 41–50 years ($n = 18$), and 50+ years ($n = 7$), indicating a mix of early-career, mid-career, and experienced professionals whose perspectives shape SDL practices. Regarding educational qualifications, most respondents held a **Bachelor's Degree (70%)**, followed by Diploma holders (27%), and a minority with Master's Degrees (3%), suggesting a workforce largely composed of mid-level qualified teachers actively engaged in teaching and SDL-related activities. The distribution of teaching workload varied, with 42.1% teaching two classes, 31.6% teaching three classes, 15.8% teaching all four classes, and 10.5% teaching one class, highlighting differences in responsibility that could affect approaches to fostering SDL. Management level analysis showed that teachers (non-management) represented **52.6%**, Other Board Members **31.6%**, and Executive Board Members **15.8%**, reflecting a hierarchical structure in which most respondents were directly involved in classroom teaching and

curriculum implementation, while board members provided oversight and strategic guidance. These demographic dynamics have implications for teacher engagement, staffing, and the cultivation of SDL skills, underlining the need to consider gender, experience, and role distribution in developing equitable and effective educational practices.

Findings According to the Study Objective

This section presents the analysis and interpretation of data based on the study objective.

Teacher Qualification Levels on the Development of Self-Directed Learning Outcomes

The first objective of the study was to assess how teacher qualification levels influence the development of self-directed learning outcomes in secondary schools. Respondents rated their agreement with statements on a 5-point Likert scale, and the descriptive statistics for these items are summarized in Table below

Table: Descriptive Statistics on the Influence of Teacher Qualifications

	N	Min.	Max.	Mn	Std. Dev.
Comprehensive teaching methods are used in coverage of self-directed learning outcomes	95	1	5	3.76	1.191
Highly confident in facilitating self-directed learning within your classroom due to teaching skills exhibited	95	1	5	3.83	1.243
Teaching-learning process are usually prepared in with qualifications and training a quittance	95	1	5	3.48	1.262
There is always incorporation of self-directed learning activities into your teaching practice	95	1	5	3.64	1.120
There is a positive correlation between the level of teacher qualifications and students' self-motivation.	95	1	5	3.44	1.302
Students of highly qualified teachers demonstrate better skills in setting their own learning goals	95	1	5	3.20	1.426
The qualification level of teachers influences the frequency with which students undertake independent research.	95	1	5	3.14	1.373
Highly qualified teachers are more effective in fostering self-directed learning strategies among students.	95	1	5	3.00	1.451
Students in classes taught by highly qualified teachers show a higher level of persistence in self-directed tasks.	95	1	5	3.18	1.337
Teacher qualifications play a critical role in the development of students' self-regulation skills.	95	1	5	3.44	1.252
The relationship between teacher qualifications and self-directed learning outcomes is significant in secondary education	95	1	5	3.53	1.210
Teachers with advanced qualifications use more effective methods to encourage students' autonomy in learning.	95	1	5	3.33	1.380
Valid N (list wise)	95				

Source: Primary Data (2024)

When respondents were asked whether comprehensive teaching methods were used to cover self-directed learning (SDL) outcomes, the study shows that respondents moderately agreed, with a mean score of 3.76 (SD = 1.191). This suggests that while most teachers perceive their teaching methods as thorough and supportive of SDL, there is noticeable variability, indicating that some respondents may not be employing equally effective strategies. This finding points to the need for targeted professional development to enhance consistency in teaching practices.

Regarding confidence in facilitating SDL within the classroom due to teaching skills exhibited, the study reveals a mean score of 3.83 (SD = 1.243), indicating moderate agreement. This relatively high score suggests that most respondents feel confident in their ability to guide students toward SDL, but the standard deviation highlights variations in confidence levels, potentially linked to differences in qualifications or teaching experience.

On the item assessing whether teaching-learning processes are prepared based on qualifications and training, the study reports a mean score of 3.48 (SD = 1.262). This finding suggests moderate agreement, with some respondents indicating that their qualifications and training directly inform their lesson preparation. However, the variability in responses signals a gap in applying training uniformly, which could impact SDL outcomes.

When asked about incorporating SDL activities into teaching practice, the study shows a mean score of 3.64 (SD = 1.120). This indicates that teachers are moderately integrating SDL strategies into their classrooms. The relatively low variability suggests a more consistent application of SDL activities compared to other practices, though further improvement may be needed to maximize student autonomy in learning.

The study also explored whether there is a positive correlation between teacher qualifications and students' self-motivation, resulting in a mean score of 3.44 (SD = 1.302). This moderate agreement suggests that most respondents recognize a link between their qualifications and students' ability to self-motivate, though differences in teacher perception highlight room for improvement in leveraging qualifications to enhance motivation.

When respondents were asked whether students of highly qualified teachers demonstrate better skills in setting their own learning goals, the study recorded a mean score of 3.20 (SD = 1.426). This indicates a moderate level of agreement but with significant variability, reflecting diverse teacher perceptions. The high standard deviation suggests that not all teachers recognize or prioritize the development of goal-setting skills as part of SDL outcomes.

Regarding whether teacher qualifications influence the frequency with which students undertake independent research, the study shows a mean score of 3.14 (SD = 1.373). This moderate agreement implies that teacher qualifications play a role in encouraging independent research, though the variability suggests that this relationship is not fully leveraged in all classrooms.

On the item about highly qualified teachers being more effective in fostering SDL strategies, the study reports a mean score of 3.00 (SD = 1.451). This score represents the lowest level of agreement among the items and significant variability, suggesting that the connection between advanced qualifications and fostering SDL is underutilized in practice.

When asked whether students in classes taught by highly qualified teachers show higher persistence in SDL tasks, the study shows a mean score of 3.18 (SD = 1.337). This moderate agreement suggests that teacher qualifications may contribute to greater student persistence, but the variability highlights the need for more consistent teacher practices to support this outcome.

The study also assessed whether teacher qualifications play a critical role in developing students' self-regulation skills, revealing a mean score of 3.44 (SD = 1.252). This moderate agreement aligns with existing literature that links teacher expertise to the cultivation of essential SDL competencies, though differences in perception point to areas for improvement in professional development.

When respondents were asked whether the relationship between teacher qualifications and SDL outcomes is significant in secondary education, the study recorded a mean score of 3.53 (SD = 1.210). This suggests a general consensus among teachers that qualifications significantly impact SDL, though the variability indicates that this impact is not uniform across respondents.

Finally, on the item regarding whether teachers with advanced qualifications use more effective methods to encourage student autonomy in learning, the study shows a mean score of 3.33 (SD = 1.380). This indicates moderate agreement, suggesting that while many teachers see advanced qualifications as beneficial for fostering student autonomy, the variability highlights inconsistent application of effective methods.

Influence of Teacher Qualification Levels on SDL Outcomes

The first objective of the study aimed to assess the influence of teacher qualification levels on the development of self-directed learning (SDL) outcomes in selected secondary schools. To achieve this, a linear regression analysis was conducted to measure how teacher qualification levels predict SDL outcomes. The results from the regression analysis are summarized in the table below:

Table 4.5: Regression Analysis of the Influence of Teacher Qualification Levels on SDL Outcomes

Variable	Unstandardized Coefficients	Standardized Coefficients	t	Sig. (p-value)
Constant	1.542		4.682	.000
Teacher Qualification Levels	.682	.714	9.238	.000

Model Summary

R	R ²	Adjusted R ²	Std. Error of the Estimate
.714	.510	.505	.485

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.547	1	21.547	85.396	.000
Residual	20.674	93	0.222		
Total	42.221	94			

Source: Primary Data (2024)

Interpretation of Findings

The regression analysis demonstrates that teacher qualification levels exert a significant influence on students' self-directed learning (SDL) outcomes. The model's high level of significance ($F = 85.396$, $p = .000$) confirms that teacher qualifications constitute a key determinant in the development of SDL skills among secondary school students. The findings indicate that for each incremental increase in teacher qualification such as advancing from a Diploma to a Bachelor's degree SDL outcomes improve by approximately 0.68 points. The standardized coefficient ($Beta = 0.714$) further evidences a strong positive relationship, underscoring the substantial impact that higher teacher qualifications have on fostering SDL. Moreover, teacher qualifications account for 51% of the variance in SDL outcomes, signifying their considerable explanatory power, although other factors such as teaching experience, pedagogical training, institutional resources, and student characteristics also contribute (Candy, 1991; Garrison, 1997).

The statistical significance of these results ($p = .000$) provides strong confidence in the validity of the observed relationship. Consequently, it is imperative for educational institutions and policymakers to prioritise the recruitment and retention of highly qualified teachers, alongside sustained professional development initiatives. Such investments are essential to equip teachers with the requisite pedagogical expertise to create learning environments that effectively promote student autonomy, self-regulation, and goal-setting (Knowles, 1975; Zimmerman, 2002). In conclusion, the evidence unequivocally supports the critical role of teacher qualifications in enhancing self-directed learning outcomes within secondary education.

Discussion of the Findings

The objective of the study was to assess the extent to which teacher qualification levels influence the development of self-directed learning (SDL) outcomes among secondary school students. The quantitative findings in table 4.4 revealed a statistically significant relationship, with a mean score of 3.83 and a standard deviation of 1.243, indicating that respondents generally perceive that higher teacher

qualifications contribute positively to SDL outcomes. This supports the argument that more qualified teachers are more effective in implementing pedagogical approaches that encourage independent learning, critical thinking, and self-regulation among learners.

This finding aligns with Schunk (2009), who asserts that teachers with higher qualifications possess the requisite skills and theoretical understanding to apply learner-centred teaching strategies, including those that promote SDL. Similarly, Hattie (2009) emphasizes that teacher effectiveness an essential driver of student achievement is strongly influenced by qualification level, as highly qualified teachers are more adept at designing instructional experiences that foster goal setting, autonomy, and reflective learning. Darling-Hammond (2000) further argues that advanced teacher training and formal qualifications enhance the ability to facilitate SDL, especially through differentiated instruction and scaffolded support.

Although the results show a generally positive perception of qualified teachers' impact on SDL, the relatively moderate standard deviation suggests some variation in views. This implies that other factors such as classroom environment, individual teacher experience, and access to professional development may mediate the extent to which qualification level alone enhances SDL outcomes. Interview responses supported this notion, with some teachers noting that while academic qualifications are essential, practical classroom experience and pedagogical adaptability are equally vital for promoting SDL.

Furthermore, data from the observation checklist confirmed that while highly qualified teachers were present in several schools, their implementation of SDL strategies was only partially observed in most cases. This suggests that possession of qualifications does not always translate into active and consistent application of SDL-supportive methods. Thus, while teacher qualifications are an important foundation, they must be accompanied by continuous professional development and institutional support to optimise SDL outcomes.

In summary, the findings underscore that while teacher qualification levels significantly influence SDL, they are most effective when integrated into a broader ecosystem of engagement, training, and pedagogical practice.

Conclusion

Based on the analysis of findings from questionnaires, interviews, and classroom observations, the study concludes that teacher qualifications, teacher engagement, and professional practices collectively play a central role in the cultivation of self-directed learning (SDL) among secondary school students. Teacher qualification levels were found to be positively associated with the development of SDL skills, as those with higher academic and professional credentials are more effective in promoting strategies such as learner autonomy, critical thinking, and self-regulation. Their advanced knowledge and pedagogical training further enable them to design and implement learning experiences that nurture student independence and active inquiry. At the same time, teacher engagement emerged as a key determinant in the enhancement of SDL.

Recommendations of the Study

Based on the findings and conclusions drawn from this study, the following recommendations are considered instrumental in enhancing the cultivation of self-directed learning (SDL) in secondary schools.

The study established that teacher qualification levels are strongly associated with the promotion of SDL skills such as autonomy, critical thinking, and self-regulation. In line with this finding, schools, in collaboration with the Government of Uganda through the Ministry of Education and Sports (MoES), should prioritise the recruitment and retention of highly qualified teachers.

References

1. Ajagbe, A. (2013). Teacher effectiveness and student achievement in secondary schools. Lagos: Educational Press.
2. Amin, M. (2005). Social science research: Conception, methodology and analysis. Makerere University Printery.
3. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
4. Candy, P. C. (1991). Self-direction for lifelong learning. San Francisco, CA: Jossey-Bass.
5. Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Sage Publications.
6. Cronbach, L. J. (1950). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
7. Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives*, 8(1), 1–44. <https://doi.org/10.14507/epaa.v8n1.2000>
8. Darling-Hammond, L. (2017). Empowered educators: How high-performing systems shape teaching quality around the world. Jossey-Bass.
9. Garcia, E., & Martinez, R. (2023). Teacher shortages and educational inequalities in developing countries. *International Journal of Educational Development*, 96, 102677. <https://doi.org/10.1016/j.ijedudev.2022.102677>
10. Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18–33. <https://doi.org/10.1177/074171369704800103>
11. Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.
12. Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26. <https://doi.org/10.3102/0013189X033007014>
13. Knowles, M. S. (1975). Self-directed learning: A guide for learners and teachers. Association Press.
14. Kousar, S., Ali, M., & Khan, A. (2023). Professional development and teacher effectiveness: Insights from secondary education. *Journal of Educational Research*, 126(2), 145–162. <https://doi.org/10.1080/00220671.2022.2057158>
15. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
16. Lee, H., & Kim, J. (2024). Continuous professional development and teacher engagement in promoting student autonomy. *Teaching and Teacher Education*, 121, 103938. <https://doi.org/10.1016/j.tate.2023.103938>
17. Ministry of Education and Sports (MoES). (2016). Education statistical abstract 2016. Government of Uganda.
18. Ministry of Education and Sports (MoES). (2020). Competency-based curriculum framework for lower secondary education in Uganda. Government of Uganda.



19. Mugenda, O. M., & Mugenda, A. G. (2010). Research methods: Quantitative and qualitative approaches (2nd ed.). Acts Press.
20. Mugizi, T., Nakabugo, M. G., & Kasozi, E. (2022). Self-directed learning in Ugandan secondary schools: Teacher influence and challenges. *African Journal of Education Research*, 30(1), 23–38.
21. Onzi, E., Muwanguzi, P., & Lwanga, D. (2023). Teacher engagement and learner autonomy in secondary schools. *Journal of Educational Practice*, 14(5), 55–69.
22. Oslo, D., & Onen, D. (2005). A general guide to writing research proposals and reports. Jomo Kenyatta Foundation.
23. Perry, L., Smith, J., & Nguyen, H. (2024). Teacher-student interactions and self-directed learning in secondary education. *Educational Review*, 76(2), 214–231.
<https://doi.org/10.1080/00131911.2023.2087654>
24. Schunk, D. H. (2009). Learning theories: An educational perspective (5th ed.). Pearson.
25. Uganda Bureau of Statistics (UBOS). (2022). Education statistics report 2022. Kampala: UBOS.
26. Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2