

Effect of Self-Directed Learning on Self-Confidence of Childhood School Pupils

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ABSTRACT: This study investigated the effect of self-directed learning (SDL) on the self-confidence of Primary 5 pupils in Nigeria's Federal Capital Territory (FCT). Using a true experimental design, 90 pupils were randomly assigned to one of three groups: an SDL experimental group, a conventional teaching group, and a control group. Data were gathered with the Pupils' Self-confidence Rating Scale (PSCRS), an expert-validated instrument with a reliability index of 0.78. The data were analyzed using mean, standard deviation, and t-tests at a 0.05 significance level. Results showed that pupils in the SDL group had significantly higher self-confidence (Mean = 28.70, SD = 4.52) than those in the conventional method group (Mean = 14.70, SD = 4.15) and the control group (Mean = 14.30, SD = 3.95). Statistical tests confirmed SDL was superior to conventional methods ($p < 0.05$), while no significant difference was found between the conventional and control groups. The study concludes that SDL is a powerful tool for enhancing pupil self-confidence and recommends its adoption in primary education, supported by relevant teacher training.

Keywords: *Autonomous Learning, Learner Self-Belief, Primary Education Pedagogy, Instructional Strategies, Educational Advancement, Student Psychology*

Introduction

The pedagogical methods a teacher selects can profoundly shape not only a student's academic performance but also their developing personality. Indeed, the choice of teaching strategy appears to be a significant factor in the formation of a learner's personal attributes. A review of existing literature reveals a strong focus on how teaching methods affect academic achievement, with considerably less attention paid to their impact on personality traits like assertiveness, creativity, and self-confidence.

Nzeribe (2004) noted the wide array of teaching methods available to educators. The selection of a method should be informed by several critical factors, including the developmental stage of the learners, the size of the classroom, and the time allocated for the lesson. Expanding on this, Robinson and Persky (2020) suggested that the objectives of a lesson and the intended impact on the learner's character should also be primary considerations.

Educational literature generally categorizes teaching methods into two broad classes: conventional and innovative.

Conventional methods are traditional and teacher-centric, positioning the teacher as the primary source of knowledge and the student as a passive recipient. In stark contrast, **innovative methods** are learner-centric, such as self-directed learning (SDL). SDL describes a learning environment where students take primary control, and the teacher's role shifts to that of a facilitator.

While Merriam (2001) suggested that SDL is best suited for adolescents and adults, this study explores its modified use for younger, primary-level students under teacher guidance. Garrison (1997) defined SDL as a process where learners integrate external management, internal monitoring, and personal motivation to navigate their educational journey.

A significant benefit of this approach is its potential to enhance **self-confidence**, which is the belief in one's own capabilities. Norman and Hyland (2003) emphasize that confidence is a crucial factor influencing a student's participation and progress in learning. Students with high self-confidence are more willing to take academic risks

and set ambitious goals. Although humans may be born with a baseline of self-confidence, this trait is malleable and changes throughout childhood development. Rubio (2007) identified that teaching methods are among the factors that can negatively affect a pupil's self-confidence. Despite this, empirical research on the direct effect of teaching methods on student self-confidence remains scarce. This study, therefore, sought to fill that critical research gap.

Purpose of the Study

The primary objective of this research was to investigate the effect of self-directed learning on the self-confidence of public primary school pupils in FCT, Abuja. Specifically, the study sought to:

- Ascertain the mean self-confidence score of pupils taught using the SDL method.
- Determine the mean self-confidence score of pupils in the control group who received no specific teaching intervention.
- Establish the mean self-confidence score of pupils taught using conventional, teacher-led methods.
- Examine if a significant difference exists between the self-confidence scores of the SDL group and the control group.
- Assess whether the self-confidence scores of pupils in the SDL group differ significantly from those in the conventional method group.

Research Questions

The following questions were formulated to guide the investigation:

1. What is the resulting mean self-confidence score for pupils who participate in the self-directed learning program, as measured by the PSCRS?
2. What is the mean self-confidence score for pupils in the control group (who received no instruction), as measured by the PSCRS?

3. What is the mean self-confidence score for pupils taught via conventional methods, as measured by the PSCRS?

Hypotheses

The study tested the following null hypotheses at a 0.05 significance level:

- **H₀₁:** There is no statistically significant difference between the mean self-confidence scores of pupils taught using the SDL method and those in the control group.
- **H₀₂:** There is no statistically significant difference between the mean self-confidence scores of pupils taught using the conventional method and those in the control group.
- **H₀₃:** There is no statistically significant difference between the mean self-confidence scores of pupils taught using the SDL method and those taught with the conventional method.

Method

This study utilized a true experimental research design, which involves the random assignment of subjects to treatment and control groups. The population consisted of all public primary school pupils in FCT, Abuja. A sample of 90 Primary 5 pupils was selected through a multistage random sampling technique from three Area Councils. The sample size of 30 pupils per group was determined to be sufficient using a G*Power analysis to reduce the risk of Type II error.

Data were gathered using the 25-item Pupils' Self-confidence Rating Scale (PSCRS), a four-point Likert scale instrument developed for this study. The instrument's validity was confirmed by a panel of four experts, and its reliability was established with a Cronbach's alpha coefficient of 0.78. The experiment was conducted for two months after regular school hours to avoid disrupting the normal academic schedule. Data were analyzed using mean, standard deviation, and t-tests, with significance set at $p < 0.05$.

Results

The data analysis provided clear answers to the research questions and hypotheses.

Descriptive Statistics

The data in Table 1 summarizes the performance of the three groups. The pupils in the self-directed learning group (SDLE) achieved the highest mean self-confidence score of 28.70 (SD = 4.52). In contrast, the conventional method group (CME) and the control group (CG) recorded much lower mean scores of 14.70 (SD = 4.15) and 14.30 (SD = 3.95) respectively. This initial result suggests that the SDL intervention had a substantial positive effect.

Table 1: Summary of Mean Self-Confidence Scores by Group

Groups of respondents	N	Mean	Std. Deviation
Experimental (SDLE.) group	30	28.70	4.52
Experimental (CME.) group	30	14.70	4.15
Control (IC.) group	30	14.30	3.95
TOTAL	90	19.23	4.87

Key: N=Number of respondent, Mean score, S.D= Standard Deviation of scores

Hypothesis Testing

The hypotheses were tested using independent samples t-tests.

Hypothesis 1: The first test compared the SDL group against the control group. As detailed in Table 2, the result was statistically significant.

Table 2: t-test Comparing Self-Directed Learning (SDL) and Control Groups

Groups	N	Mean	SD	Df	t- cal	p	Dec
Self-directed learning (SDLE)	30	28.70	4.52	58	4.405	0.001*	Significant (reject H ₀₁)
Control group(I C)	30	14.30	3.95				

Key: N=Number of test respondent, = Mean score, p= Significant value

* **Significant at 0.05.**

With a calculated t-value of 4.405 and a p-value of 0.001, which is less than the 0.05 alpha level, the null hypothesis was **rejected**. This indicates a significant difference in self-confidence favoring the SDL group.

Hypothesis 2: The second test compared the conventional method group with the control group. The results are presented in Table 3.

Table 3: t-test Comparing Conventional Method (CME) and Control Groups

Groups	N	Mean	SD	Df	t- cal	p	Dec
Conventional teaching method (CME)	30	14.70	4.15	58	0.390	0.699	Not Significant (accept H ₀₂)
Control group(I C)	30	14.30	3.95				

Key: N=Number of respondent, = Mean score, p= Significant value

*** Significant at 0.05.**

The analysis yielded a t-value of 0.390 and a p-value of 0.699. Since the p-value is greater than 0.05, the result is not statistically significant, and the null hypothesis was **not rejected**.

Hypothesis 3: The final test compared the two instructional methods directly: SDL versus the conventional method.

Table 4: t-test Comparing Self-Directed Learning (SDL) and Conventional Method (CME) Groups

Groups	N	Mean	SD	Df	t- cal	p	Dec
Self-directed learning (SDLE)	30	28.70	4.52	58	4.330	0.001*	Significant (reject H ₀₃)
Conventional teaching method (CME)	30	14.70	4.15				

Key: N=Number of respondent, = Mean score, p= Significant value

*** Significant at 0.05.**

This comparison produced a t-value of 4.330 and a p-value of 0.001, indicating a statistically significant difference. Therefore, the final null hypothesis was also **rejected**, confirming the superiority of the SDL method over the conventional approach for building self-confidence.

Discussion

The findings clearly show that pupils exposed to the self-directed learning method gained significantly more self-confidence than those in both the control group and the conventional method group. This outcome supports the proposition by Rubio (2007) that the chosen method of teaching can directly influence a learner's self-confidence. The statistical analyses confirmed significant differences favouring the SDL group when compared to both the control and conventional groups.

Conversely, while the conventional method group scored slightly higher than the control group, the difference was not statistically significant. This implies that traditional, teacher-centered instruction does little to actively build this critical psychological trait.

Conclusion

The study concluded that the teaching method adopted by an educator significantly affects learner self-confidence. Self-directed learning is demonstrably more effective at boosting self-confidence among primary school pupils than conventional methods of teaching.

Recommendations

Based on the compelling findings, the following actions are recommended:

1. The Ministry of Education and other stakeholders should organize symposiums and awareness campaigns for teachers on the link between teaching methods and learner self-confidence. These programs should highlight the potential harm of certain traditional practices.
2. Pedagogical approaches that simultaneously foster both academic achievement and self-confidence should be actively promoted and integrated into teacher training and school curricula.

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