Teachers’ Collective Efficacy as a Predictor of Students’ Academic Performance in North Central Nigeria

Abstract
Public secondary schools in Nigeria occupy a significant position for providing qualitative education, yet there has been increasing public discontent with the quality of students being produced in the country’s public secondary schools. Teachers are regarded as one of the resources necessary for achieving the goals of secondary education. It is against this backdrop that this study examined teachers’ collective efficacy as a predictor of students’ academic performance in North Central Nigeria. Three research questions and hypotheses were generated to guide the study, which made use of a correlation-type descriptive research design with a population consisting of all teachers in the North Central region. An instrument titled the Teachers’
Collective Efficacy Questionnaire (TCEQ) was developed to elicit pertinent data from the participants. Also, students’ academic achievement was measured. The results of the study revealed that no substantial nexus existed between the teachers’ experience and the students’ academic achievement. However, the teachers’ verbal encouragement was found to be an important predictor of the learners’ academic success. Similarly, the teachers’ academic emphasis was a significant predictor of the learners’ academic performance. Based on this, it was established that teachers’ collective efficacy is an important predictor that can be used to improve students’ academic achievement. The study recommended that education administrators should acquaint their staff with the importance of collective efficacy towards improving students’ academic performance. It was also recommended that the government should organize workshops, seminars, and conferences for the supervisors, principals, and teachers of schools on efficacy issues and that teachers should be well motivated to maintain a high degree of efficacy in their various schools.

Keywords: collective efficacy, senior secondary schools, academic performance

Introduction

Education remains a fundamental tool for overhauling national advancement. It requires special attention because it transmits the sociopolitical and cultural transformation of the people. Regardless of the natural bequest of a country’s strength, deprived of its essential scholastic capability, the talents required to develop the country would be missing, and consequently, such a society would be inevitably deficient. Education remains the backbone and determinant of technological, political, and socioeconomic improvement of countries, and has contributed greatly to the knowledge acquisition and skill development of millions of people around the world (Buonomo et al., 2020; Ileonikhena, 2015; Oweh, 2014). Manpower development is a prerequisite for national advancement through education so as to produce the necessary proficient
workforce of sufficient value and capacity. A cultured and experienced nation which possesses the information, abilities, and skills required for effective involvement in civic life add value to our democracy, supporting the common good and ensuring that future generations benefit from their labors. To achieve these objectives, there is a need for teachers ready to assist the students and the school (Burns & Carpenter, 2008; Fasasi, 2011; Wilson et al., 2020).

There is public dissatisfaction regarding students’ performance on both internal and external examinations and the state in which students are graduating from secondary schools, lacking the basic skills required for effective functioning in society. Moreover, the performance of public secondary school students on the West Africa Senior Secondary School Certificate Examination (WASSCE) and the National Examination Council (NECO) exam has made parents confused, examiners worried, the government embarrassed, and the students dazed because it is quiet below their expectation (Akpara, 2017). Thus, there has been increasingly public discontent in Nigeria over the quality of the students being produced in public senior secondary schools. Teachers and administrators of public secondary schools are under more pressure today than ever before to be more productive while performing the duties officially assigned to them as teachers and administrators. Their level of collaboration while at work could also go a long way in determining the effectiveness of their schools. Teachers’ job performance affects the performance of students on examinations. How can teacher quality best be ensured if not through collaboration and consideration of teamwork? Poorly trained and unmotivated teachers, low student academic achievement, poor attendance, high dropout rates, low scores in public examinations, and a poor foundation for education, are some of the indicator of the poor quality of education in Nigeria. These have provoked the demand for a positive transformation of the education system in Nigeria (Lawal, 2015; Orimoloye, 2018).

A declining and deteriorating Nigerian education system was inherited from the colonial administration, a lack of strategic support from the Nigerian society, an increase in enrolment, and a decrease in funding for the system, thus militating against achieving the nation’s goals
for secondary school as stated in the nation’s educational policy (Okonjo et al., 2015; Wasagu, 2018). Consequently, secondary school transformation has raised deep concern and has attracted the interest of educational stakeholders in scholastic inquiry in order to achieve an encouraging performance. Education in the modern era has turned out to be a challenge in which educators and managers are closely examined for learners’ performance. Regarding mastery of the subject matter, numerous educators are unproductive and inadequately trained to pass on useful information (knowledge and skills) to their students. Students’ academic performance continues to fall as a result of a lack of commitment, an inability to deliver selfless services, a lack of self-trust, and an inability to work with others towards achieving certain goals (Cansoy et al., 2020; Freeman, 2018). The future success of the nation’s educational system hinges on teachers’ confidence in instructional delivery enhancing academic standards. Teachers’ effectiveness is a fundamental determinant of students’ accomplishment (Goddard et al., 2020; Klem & Connell, 2004; Ross & Bruce, 2017).

It is apparent that secondary school education plays an important role in national development. Apart from acting as the link between elementary schools and institutions of higher learning, it offers a chance for students to acquire extra knowledge, talents, and qualities beyond the basic level. The development of education at a post-elementary level of in Nigeria is required because education being provided at the primary level appears to be inherently deficient for the acquisition of long-term literacy and numerical competence. As a result, it needs to be catered to adequately. The evidence to this effect includes dropout rates due to an inability to comprehend, public dissatisfaction with students’ performance on both internal and external examinations, and the state in which graduates are being produced, lacking the required talents for effective functioning in society. It is against this background that the researchers investigates teachers’ collective efficacy as predictor of students’ academic performance in North Central Nigeria.
Literature Review

Klem and Connell (2014) found that the greatest influential determinant of students’ academic achievement is teachers’ collective obligation, because it promotes students’ commitment and learning. Collective efficacy entails school qualities in terms of teamwork, which assumes accountability for student learning outcomes. Individual members have confidence in one another in regards to achieving the predetermined objectives. Ware and Kitsantas (2017) established that a college workforce with great degree of observed effectiveness set themselves challenging and valuable goals that provoke a persistent determination to achieve them. Educational institutions are seen as a scholarship environment where individual members and the institution in general set objectives, select diverse learning activities, respect and embrace different members’ roles, develop in-depth knowledge of ideas, and provide feedback. Teachers’ mode of action is sophisticated in these learning settings, in that they are confident of the feedback which consequently contributes toward effective decision-making processes in education.

Collective efficacy is a potential that can be used to assess the degree of institution variability and to reveal a school’s shared ideology in its capacity to positively influence learners’ competencies to achieve a common goal. It not only implies an individual belief system or organizational construct, which collective efficacy researchers identify as promoting or increasing school capacity, but also an evolving group-degree feature, which is the merchandise of collaborative subtleties (Darrington & Angelle, 2013). Regarding students’ success, school philosophies on shared instructional effectiveness contribute considerably to learners’ performance. Collective efficacy connotes assessment of teachers in the school system, which the school in totality establishes and implements in the sequences of action that are essential for better academic output (Freeman, 2008; Goddard et al., 2014).

Collective efficacy is great if instructors are of the opinion that they are skilled at facilitating students to grasp intricate content, nurturing learners’ creativity, and improving students’ academic achievement.
If their efficiency is great, teachers display more perseverance and enthusiasm toward innovative instructional methods. Teachers with great efficiency inspire independence in students, cater meticulously to the needs of learners that are not effectively increasing, and are capable of transforming learners’ sensitivities toward educational capabilities (Ashton & Webb, 2016; Eells, 2011; Lashinsky, 2012; Ross & Bruce, 2017). Bandura (2013) established that collective efficacy and student achievement are stronger than the correlation between socioeconomic status and student achievement. Recently, collective efficacy has been rated as a fundamental element that influences student academic performance. A meta-analysis established that collective efficacy and student attainment were powerfully linked with each other. Therefore, collective is an important predictor of student academic success. Zhou et al. (2020) established a correlation between teachers’ self-efficacy and students’ academic achievement in computer science in high school and concluded that efficacy displayed by teachers in the classroom influenced academic success of their students. Cansoy et al. (2020) assessed the link between instructional leadership and teacher commitment in secondary schools and concluded that efficacy is a significant factor that can be used to establish a balanced relationship between instructional leadership and the commitment of teachers.

Tschannen et al. (2018) confirmed the potentiality of teacher effectiveness as a degree of educator trust capable of influencing student achievement, teachers’ belief, and confidence. The construct of teachers’ sense of efficacy connotes teachers’ position on specific expectation that support students’ learning. Teachers with a strong sense of efficacy belief are capable of enhancing students’ performance. Dellinger et al. (2018) remarked that teacher efficacy in the framework of schools’ ability performs exact teaching tasks at a specified level of quality in a specified situation. Teacher effectiveness has been connected to numerous results and professional behaviors, including perseverance in working with problematic students, an advanced degree of organization and classroom preparation, being less critical of students, and demonstrating persistence and resilience when things do not go well.
Another study on efficacy found that effective educators are needed to ensure robust and reliable classroom time management within an academic year (Darling & Hammond, 2018). Students’ behavioral management is manifested via this factor. The basic philosophies for learning and character formation are transferred to the students through teachers that are of the view that standards should be maintained in the teaching and learning process, which will allow the students to function assertively within the paradigms of a conducive atmosphere deprived of the distress of punishment from peers or embarrassment due to prejudicial measures. Regarding the students and the curriculum, effective teachers take a vigorous method of teaching, as learning is globally linked (Lee, 2012; Ware, 2012). To culminate their learning capability, books are published by students on their difficulties with illustrations and pictures as an additional result. Toliver’s successful engagement with her students became apparent when one group of students made the following comment in their book: the purpose of this experience is to prove that the classroom is not the only place to learn math (Toliver & Ware, 2016). The studies of Barkley (2016) and Schunk (2019) confirmed that triumphant arrangement with students displayed the additional active and instructional technique of effective teachers, supportive teaching, and learning. In supportive learning settings, students work together rather than compete against one another. Appropriate arrangements of the learning setting offer students the prospect of feeling effective, consequently increasing the students’ effectiveness. Through the use of supportive learning paradigms, the learning responsibility is conveyed to the students. Teachers significantly influence students’ academic achievement with dedicated responsiveness to their numerous learning approaches and capabilities. Learning styles ought not to be seen as interruptions, but as a mechanism for providing a vibrant link and a preeminent technique to productively prepare students. Teaching in ways that connect with students requires an understanding of the differences that may arise from culture, family experiences, intelligence, and approaches to learning.

Hardy et al. (2015) investigated the effect of incentive self-talk on self-efficacy. The findings showed that both instructional and motivational
self-talk were evidently linked to self-efficacy and performance, but none of the dimensions was connected to performance. Goltsi and Zourbanos (2018) examined the effect of involvement and efficacy on secondary school students’ effectiveness in Wuhan, China. The study used a longitudinal approach and the results of the study showed that the use of incentive self-talk considerably improved self-efficacy and the achievement of secondary school students, therefore providing supporting evidence for the intervening role of self-efficacy. Also, Markaki (2014) reported on the effects of instructional self-talk on the learning of communication skills among female students in a Korean school of language and communication skills. The researcher found that the self-talk group revealed better performance and reported increased self-efficacy than a control group. Robbert et al. (2019) conducted a study on anticipation and performance. A factorial research design was adopted for the study. The 30 male and 30 female subjects were randomly selected with either a high or low self-efficacy condition. The outcomes of the study showed that a significant positive difference existed between the high and low self-efficacy subjects as well as between men and women. The study recommended that a different pattern of gender role in socialization should be given priority. The work of Nichola et al. (2015) focused on the relationship between general self-efficacy, planning for the future, and life satisfaction. The study group consisted of 243 university students ranging in age from 16 to 31 years. Data were collected through the New General Self-Efficacy Scale Questionnaire, the Continuous Planning Scale Questionnaire, the Consideration of Future Consequence Scale Questionnaire, and the Satisfaction with Life Scale Questionnaire. The findings of the study revealed that all variables are connected with self-efficacy.

Additionally, the present study is anchored on self-efficacy theory, which was propounded by Albert Bandura in 1977 and is premised on an individual’s belief in their capacity to implement behavior and to perform the tasks necessary to accomplish a specific performance. The fundamental belief is the foundation of human motivation, performance, accomplishment, and emotional wellbeing. According to Bandura, the theory of the two fundamental determining factors of behavior are apparent
self-efficacy and result expectation. The second paradigm denotes the perceived positive and negative consequences of performing the behavior. The individual’s self-persuasion through self-talk and enhanced the achievement of certain outcomes. People who have confidence in their capability to produce the desired outcomes through their arrangements, have little motivation to embark on events or endure in the face of adversity. Whatever other issues that act as guides and stimuli are rooted in the core belief that one can make a difference by one’s action (Wiley, 2014). Based on the above-mentioned studies, the present one is aimed at assessing teachers’ collective efficacy using three dimensions (experience, verbal encouragement, and academic emphasis). The conceptual framework of the study is given in Figure 1:

**Figure 1: Conceptual framework of the study**

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Teachers’ Experience

Teachers’ Collective Efficacy

Teachers’ Verbal Encouragement

Teachers’ Academic Emphasis

Students’ Academic Performance
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**Research Questions**

1. What is the relationship between teachers’ experience and students’ academic performance?
2. What is the nexus between teachers’ verbal encouragement and students’ academic performance?
3. Is there any relationship between teachers’ academic emphasis and students’ academic performance?
Research Hypotheses

H0₁: There is no significant relationship between teachers’ experience and students’ academic performance in public senior secondary schools in North Central Nigeria.

H0₂: There is no significant relationship between teachers’ verbal encouragement and students’ academic performance in public senior secondary schools in North Central Nigeria.

H0₃: There is no significant relationship between teachers’ academic emphasis and students’ academic performance in public senior secondary schools in North Central Nigeria.

Methodology

The research design used for the study is a quantitative survey. The study population was comprised of all teachers of senior secondary school in the secondary schools in the North Central states (Kwara, Niger, Kogi, Plateau, Nassarawa, and Benue) of Nigeria. The purposive sampling technique was used to select three states (Kwara, Kogi, and Nassarawa) out of the six states in the geopolitical zone, while a multistage sampling technique was used to select a sample size of 375, based on Krejcie and Morgan’s sampling table. An instrument titled the Collective Efficacy Questionnaire was designed to elicit relevant information from the respondents. The instrument was subjected to a validity check by giving it to experts in Educational Management and Test and Measurement at the University of Ilorin, Nigeria for their opinions concerning the items that are contained within the instrument. Likewise, the reliability of the instrument was checked via a pilot study with 50 teachers that were selected from outside the three states used for the main study. The data collected were found to have Cronbach’s alphas of 0.86 (teachers’ experience), 0.92 (teachers’ verbal encouragement), and 0.85 (teachers’ academic emphasis). Additionally, students’ results in English and Mathematics were obtained from the schools to measure students’ academic performance.
Questionnaires were administered to respondents in the three selected states. Before administering the questionnaires, permission was sought from the schools’ principals on the need to conduct research that focused on teachers’ collective efficacy as predictors of academic performance. Descriptive and inferential statistics were used to analyze the data gathered in the study.

**Data Analysis**

**H01:** *There is no significant relationship between the level of teachers’ experience and students’ academic performance in public senior secondary schools in North Central Nigeria.*

| Table 1: Relationship between the level of teachers’ experience and students’ academic performance |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Variable                        | N    | Mean  | SD   | Df   | r-value | p-value | Decision        |
| Teachers’ Experience            | 368  | 14.05 | 2.74 | 379  | 0.021   | 0.688   | H01 accepted    |
| Academic Performance            | 368  | 50.82 | 14.79|      |         |         |                 |

Table 1 shows the calculated *r*-value (0.021) and *p*-value (0.688), the latter of which was found to be greater than the significance level (0.05). Thus, the stated null hypothesis was upheld. This result therefore suggests that there was no significant relationship between the level of teachers’ experience and students’ academic performance in public senior secondary schools in North Central Nigeria.

**H02:** *There is no significant relationship between the level of teachers’ verbal encouragement and students’ academic performance in public senior secondary schools in North Central Nigeria.*
Table 2: Relationship between the level of teachers’ verbal encouragement and students’ academic performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>r-value</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ Verbal Encouragement</td>
<td>368</td>
<td>16.03</td>
<td>2.78</td>
<td>379</td>
<td>0.141</td>
<td>0.010</td>
<td>H0 rejected</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>368</td>
<td>50.82</td>
<td>14.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows the calculated $r$-value (0.131) and $p$-value (0.010), the latter of which was found to be less than the significance level (0.05). Thus, the stated hypothesis was rejected. This result therefore suggests that there is a statistically significant relationship between teachers’ verbal encouragement and students’ academic performance in public senior secondary schools in North Central Nigeria.

**H03:** There is no significant relationship between the level of teachers’ academic emphasis and students’ academic performance in public senior secondary schools in North Central Nigeria.

Table 3: Relationship between teachers’ academic emphasis and students’ academic performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>r-value</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ Academic Emphasis</td>
<td>368</td>
<td>17.13</td>
<td>2.80</td>
<td>379</td>
<td>0.138</td>
<td>0.007</td>
<td>H0 rejected</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>368</td>
<td>50.82</td>
<td>14.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the calculated $r$-value (0.138) and $p$-value (0.007), the latter of which was found to be less than the significance level (0.05). Thus, the stated hypothesis is rejected. This result therefore suggests that there is a statistically significant relationship between teachers’ academic emphasis and students’ academic performance in public senior secondary schools in North Central Nigeria.
Discussion

The findings from the study reveal that there was no significant relationship between the level of teachers’ experience and students’ academic performance in public senior secondary schools in North Central Nigeria. Thus, the stated null hypothesis was not rejected. This does not mean that, teacher’s experience is not relevant. In fact, there is a common saying that “experience is the best teacher” – through experiences, a great deal of knowledge, skills, and values are learned. The school administrators and teachers become expert as a result of accumulated experiences. Lashisky (2012) affirmed that teachers are dominant in any supportable transformation in the school system. Cooper (2012) argued that a skillful, successful execution of a particular duty leads to success. Therefore, encouraging performances boost teachers’ efficiency in teaching and the writing skills of students. Successful experiences serve to increase self-efficacy beliefs and lead to expectations of success in future performances. He buttressed his point further, claiming that if one fails in performing a task, self-efficacy beliefs may be diminished, leading one to question the likelihood of success in future performances. Additionally, Cooper (2012) illustrated that when a first-year math teacher is able to observe an expert math teacher successfully teach a difficult concept to students, the observation will positively enhance the young teacher’s future sense of efficacy in teaching the difficult concept. Experiences must provide observational learning opportunities that are purposeful, constructive, interactive, and motivational in order to be effective.

There was a significant relationship between teachers’ verbal encouragement and students’ academic performance in public senior secondary schools in North Central Nigeria. Thus, the stated null hypothesis was rejected. Verbal encouragement has a significant effect on the academic performance of students in senior secondary schools. Even though the relationship between verbal encouragement and academic performance in this study can be considered a weak correlation based on the correlation values that were established, which indicates a rather small effect size, it can still be concluded that verbal encouragement
boosts the performance of students in school. This finding is in agreement with a study by Tenaw (2013), who found that verbal encouragement convinced individuals – who may doubt their capabilities – that they possess the skills needed for success at a given task. He explained further that, in education, verbal encouragement delivered by teachers often takes the form of verbal feedback and evaluation. Encouragement must be realistic, sincere, and from a credible source; otherwise it can negatively affect student.

There was a significant relationship between teachers’ academic emphasis and students’ academic performance in public senior secondary schools in North Central Nigeria. Thus, the stated null hypothesis was rejected. The relationship between the two variables can be considered a weak correlation in view of the correlation values that were displayed in Table 3, which shows a rather small effect size. However, it can be established that teachers’ academic emphasis is a predictor of students’ academic success in school. This finding supports a study by Olivo (2015) which concluded that the rate of teachers’ inculcation on learners’ commitment and dedication to their students significantly enhance students’ learning outcomes. The current finding is in agreement with the theory of self-efficacy, which is based on the assertion that an individual’s belief in their capacity to implement behavior and perform tasks is necessary to accomplish a specific performance. The fundamental point in efficacy theory, as postulated by Bandura, is the foundation of human performance, motivation, accomplishment, and emotional wellbeing, which reflects confidence in the capacity to exert control over one’s own motivation, behavior, and social environment. According to Bandura, the main determining factors of behavior are perceived self-efficacy and outcome expectation (as cited in Wiley, 2014). Taking the above findings together, it can be said that teachers’ verbal encouragement and emphasis are important predictors of students’ academic performance. Even though teachers’ experience failed to predict the academic success of students, this study has nonetheless managed to provide answers to the three research objectives stated for the study.
Conclusion

Secondary school reform continues to attract the interest of stakeholders in education toward achieving outstanding performance in both internal and external examinations. Education in the modern era has turned out to be a great incentive game, where tutors and managers are comparable and seriously examined for learner accomplishment. The educational advancement of the learners’ depends on the teachers’ characteristics, learning environment, and quality of learning in the school system. The disparity in achievement gaps were attributed to principal leadership style, a high level of student expectation, orderly and structured classrooms, and teachers’ commitment to monitoring student progress. Thus, the quality of education contributes to achievement by setting challenging goals, providing pleasant learning environments, working hard towards academic excellence, and respecting and acknowledging achievement.

Recommendations

Based on the findings and conclusions of the study, the following recommendations were made:

1. Synergy must be established among the relevant stakeholders in secondary education on strategies to put in place that would enhance the academic standard of secondary school students.
2. The government at the federal, state, and local levels should organize workshops, seminars, and conferences for the supervisors, principals, and teachers of public senior secondary schools on collective efficacy issues.
3. A conducive learning environment must be made available for effective learning and for learning to be actualized in secondary schools.
4. School management boards should assess the level of teachers’ compliance with the implementation of collective efficacy issues through an effective supervisory technique.
5. Training and retraining of teachers on self-confidence should be organized for teachers from time to time.

Suggestion For Future Research

Since the current study established teachers’ experience as a non-predictor of students’ academic performance, additional studies are needed to use teachers’ academic qualifications to predict academic performance, because the qualifications of teachers are regarded as an important factor that can be used to assess teachers’ competence and coordination in classroom. In the same vein, since a significant relationship exists between teachers’ academic emphasis and academic performance, teachers’ experience could be used as a potential moderating variable that can be used to strengthen the nexus between emphasis and performance. Future studies could employ teachers’ experience to serve as a mediating variable that can be used to establish a link between teachers’ qualification and effectiveness. Additionally, studies are needed to focus on highly experienced teachers as a variable that can be used for students’ efficiency and effectiveness. Lastly, interviews on predictors of students’ success are needed to confirm or invalidate the present findings.
References


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