



## Teacher-Efficacy a Determinant of Use of Collaborative Instructional Strategy: A Case of Lower Primary Grade Teachers in Mombasa City, Kenya

Shiundu Prisca Maseyi<sup>1</sup> and Ong'ang'a H.M Ouko<sup>2</sup> (Ph.D.)

Department of Early Childhood and Special Needs Education

Kenyatta University, Kenya

---

### ABSTRACT

*In the 21<sup>st</sup> century, education world over is quickly changing to embrace pedagogical approaches that enhance the acquisition of the needed competencies. This study sought to investigate teacher-efficacy as a predictor of teachers' use of collaborative teaching learning strategy. The study locale was Mombasa city county, Kenya. The study population included both public and private lower primary school teachers. The study adopted descriptive research design. A sample size of 113 schools where a sample of 12 head teachers and 24 lower primary teachers formed the study sample. Data was collected using questionnaire, interview and observation schedule. Data was sieved and analyzed using descriptive computation of frequencies and percentages. The study findings revealed that teacher efficacy is an important determinant of teachers' use of collaborative technique. The study recommended the need to retool and empower teachers in order to boost their efficacy and readiness in teaching. Further research should be conducted to determine teachers' motivation levels against their service delivery.*

**Key words:** Collaborative Teaching, Lower primary Grades, Teacher-efficacy.

---

### 1. INTRODUCTION

The world is fast adapting the 21<sup>st</sup> century skills into their educational programmes. Kenya is not any different. The new CBC curriculum which to effect in 2017, borrows heavily from the 21<sup>st</sup> century skills and the sustainable goals of development. The question which lingers is as to the extent teachers especially at lower grades of the primary school are prepared and ready to embrace and promote the various competencies in the learners. This study was conducted in Mombasa County with the main focus being the lower primary school teachers' efficacy to incorporate collaborative teaching/learning strategy in teaching. Collaborative and communication skills is one of the 4Cs of the 21<sup>st</sup> century.

#### Background of the Study

In the new millennium, education is fast adopting the 4Cs namely collaboration, communication, creativity and critical thinking and problem solving in a bid to prepare their youth with the requisite competencies for the 21<sup>st</sup> century. Collaborative teaching/learning strategy is applauded as learner friendly and effective in promoting peer-learning.

In the US this pedagogy has been used in American for over a century and its effectiveness has been evident and has begun to attract the attention and interest of teachers globally. The approach enables the learners to work and learn in small groups to achieve a common goal in collaborative learning. Such strategy enables the teacher to manage the class effectively besides improving teaching and learning outcomes. It enhances problem solving skills in learners besides creativity and imaginative thinking in real-life situations.

In Kenya, the introduction of the Competency Based Curriculum (CBC) is cognizant of preparing learners who can and are able to appreciate hands -on experience and problem solving. CBC emphasizes on acquisition of skills and competencies by the learners (Jeng'ere, 2017).

The application of collaborative techniques learning strategy comes in handy in transforming the information and knowledge acquired by the learners into key competencies and skills that benefits and prepares them for life-long learning. This expected to help them to be responsible, reliable and self-sufficient citizens of the society.

To achieve this goal therefore, the teacher should be prepared and should have high self-efficacy in adopting effective pedagogy besides being able to interpret the content appropriately. The collaborative learning pedagogical strategy is a collaborative classroom structure that aroused interest in the early years and teaching areas (Johnson & Smith, 1991). Small group work in the classroom as part of a collaborative learning technique allows students to collaborate expand their learning with each other. A true collaborative learning environment provides the following five key elements that form the basis of its activities (Johnson, 2003). In African, studies have reported poor learning outcomes among pupils in lower primary grades which have been attributed to poor teaching methods. For instance, in Tanzania, the Uwezo (2016) reports that only three (3) in 10 Standard three pupils could read a Standard two-level story in Kiswahili, and only one in ten could read Standard two-level story in English. This means that the teaching approaches could be largely teacher centered. It is reported that, 28% of the learners had no Kiswahili literacy skills, only 33 percent could read syllables, 15 percent could read words, 9 percent could read a paragraph, and 14 percent could read a story. This explains the proposition that learning at the lower grades in Africa is far from being effective.

Uwezo(2016) reports that, in Uganda, at least 9 out of every 10 (90%) of all pupils in Pprimary G3 could not read a primary G2 level English story text. Further that only 9 out of every 10 G7 learners could read a Pprimary G2 level English story text with ease. On the other hand in Kenya, Uwezo (2016) study also reported poor learning outcomes among lower primary grade learners where 75% of Grade 3 pupils failed numeracy and reading tests for grade two level. This revelation similarly, showed that Mombasa County posted low achievement in these tests.

This scenario can be partly due to poor teaching methods (UWEZO, 2016). This underpins the need to investigate associated factors particularly at the lower primary school grades. Uwezo(2016) study attributed the poor achievement poor teaching approaches teachers employ. The study recommended that teaching methodologies should be reflective, and learner centered. Basically, the theoretical learning theory elements underscores the need for the learners to be actively involved in the learning process as opposed to where they are sheer passive participants(Barkley, Cross, & Major, 2005).

There are numerous advantages to using collaborative learning techniques in the classroom, according to research. George, Felder, and Brent (1994) affirms that collaborative learning strategy would encourage acquisition of positive attitude towards the subject matter in the classroom thus improving on learning outcomes. Therefore, it is important for the teachers to use effective teaching-learning approaches such as co-operative learning strategy in classrooms.

Although the above studies have over-emphasized on the importance of using collaborative learning strategy when teaching children, it is evident that teachers do use effective teaching approaches sparingly.

There is need to interrogate teachers' level of efficacy in using collaborative learning strategy. This study was motivated by the need to investigate teacher-efficacy as a predictor of learning outcomes among the early year learners in Mombasa city county Kenya.

## **2. STATEMENT OF THE PROBLEM**

Teacher efficacy can be a determinant and predictor of use of the acceptable teaching pedagogy as learners acquire of desirable competencies. Poor teaching strategies have been attributed to poor achievement among learners (Uwezo2016). Uwezo further revealed that there has been no significant increase in learning results among lower primary school students over the recent years. There has been persistent low achievement in language and numeracy among lower graders in Kenya just as it is in the rest of East African states. The innovative new teaching approaches? To what extent do the teachers' teaching efficacy predict use of give teaching approaches? Uwezo(2016) makes it evident that teachers' efficacy needs to be addressed in line with using effective learner-centered pedagogy.

Research has shown that the learners develop reasoning, critical thinking, creativity and problem-solving competencies if effective teaching approaches are employed.

Therefore, it was important to establish lower primary school teacher-efficacy as a determinant factor using collaborative learning strategy in lower grades of primary schools.

### **2.1 Purpose of the Study**

This study examined teacher-efficacy as a determining factor of teachers' use of collaborative learning strategy in lower primary school grades.

### **2.2 Empirical Literature**

Teacher self-efficacy has been investigated over time regarding their delivery in classroom contexts. Collaborative learning is one strategy a teacher of the 21<sup>st</sup> century would be expected to embrace in the light of the global educational dynamics. It is an educational approach to teaching and learning process that involves the use of working groups of learners in solving a common

problem. Its fundamental elements would include positive interdependence, individual and group accountability, interpersonal interactions and small group skills, a face-to-face encounter and Group processing (Laal, & Laal, (2012).

A study by Chong and Kong (2016) also investigated the impact of teacher collaboration on teacher self-efficacy in the context of the subject lesson. The review was directed on three subject domains and ten teachers at a Singapore high school and investigated effective sources that support teacher collaborative efforts. Empirical evidence so far indicate that effective teacher development programs are continuously reviewing to cultivate solid working connections among the teachers.

Seneviratne, Abd Hamid, Khatibi, Azam and Sudasinghe (2019) study also focused on teachers' sense of efficacy as challenge facing teacher-professional development as influenced by in-service teacher training programmes in regard to use of inquiry science pedagogy.

On the other hand, Holzberger and Prestele (2021) investigated teacher self-efficacy and use self-reported scales and the study established a significant correlation between teachers' efficacy and learning outcomes. This in part was the motivating factor to the current study to investigate teacher efficacy as a determinant of teachers' utilization of collaborative teaching learning instructional strategy in early primary school grades.

Other studies have also been interested in the relationship between teachers' efficacy and classroom management (Muchena and Moalisi (2018). the study reported a significant correlation between teacher self-efficacy and increased learner achievement by influencing teachers' instructional strategies, enthusiasm, commitment, and teaching behaviours. Therefore apart from task of imparting knowledge and skills, teachers' efficacy plays a major role in helping learners to define who they are and ultimately influence their motivation and learning outcomes.

Locally, Otanga (2019) studied sources of teacher performance and how it impacted on their teaching strategies among teachers in the then coast Province. Over 80 teachers participated where a series of self-reporting questionnaires on their sense of self-efficacy scale were used to collect data (Capa & Loadman, 2004). Teacher efficacy was reported to differ depending on gender, length of teaching, and subject taught. Individual teacher efficacy was reported to predict verbal persuasion and mastery. Equivalently teachers' use of innovative teaching techniques was reported to be significantly predicted by mastery. This revelation informed the current study which looked at teacher efficacy as a determinant of teachers' use of collaborative learning strategy among lower primary school grades.

Another study by Otieno, Charagu and Mogire (2019) also investigated teacher efficacy and their selection of the teaching pedagogy among secondary schools teachers. The findings revealed that teachers' demographic characteristics such as age, gender and teaching experience would be attributed to teachers' levels of self-efficacy.

### **3. THEORETICAL FRAMEWORK**

This study focus was on teachers' self-efficacy which is a determining factor of their use of collaborative teaching pedagogy. The Self Efficacy Theory, by Albert Bandura (1977) was found ideal. It looks at peoples' beliefs and tendencies and how they influence learning/behaviours. He argues that self-esteem affects everything from psychological conditions to behavioural and motivational aspects. It is therefore assumed that self-esteem (efficacy) would be associated with a variety of benefits including teaching and learning outcomes. Bandura explains that individuals foster their sense of well-being at an early age by dealing with a variety of events, activities, and situations and that self-improvement continues over the course of one's life.

To help us understand self-efficacy, Bandura (1977), opines that people with a high sense of self-efficacy would retreat from failure and would deal with problems in a manner devoid of having to worry of going wrong. This means that if the teacher has a high level of self-efficacy, s/he can use collaborative learning technique with ease in teaching lower primary school learners. This theory was appropriate to anchor the current study.

### **4. METHODOLOGY**

Descriptive research design was employed to investigate teacher-efficacy as a determinant of their use of collaborative learning approach. Creswell (2015), opines that the design gives the researcher room to analyze and describe a phenomena without necessarily making alterations. Equivalently Orodho (2014) asserts that the design enables the researchers to study an event perfectly in a natural and unmodified settings.

Mixed methodology was adopted where both quantitative and qualitative data were generated and analyzed. Data was generated using Questionnaires, Interview schedule and Observation Schedule. Teacher efficacy was the independent variable while teacher use of collaborative learning strategy remained the dependent variable. The study was carried out in Mombasa County with a target of 113 primary schools in Changamwe Sub-County, Mombasa County Kenya. The respondents will comprise of 113 head teachers, 234 lower primary school teachers forming a target population of 347 respondents. A sample 36(10%) respondents was used comprising of 12 head teachers and 24 lower primary school teachers. Mugenda and Mugenda 2004 affirms that a 10% sample is ideal in a descriptive study.

Test-retest method was applied to test reliability of the instruments. Cronbach’s alpha was used test the efficacy of the instruments and a coefficient of  $\beta \leq 0.7$  was deemed appropriate.

Quantitative data was coded and placed into the Statistical Package for Social Sciences (SPSS) version 22.0. Quantitative data was analyzed using descriptive statistics such as frequencies and percentages. Qualitative data generated through interviews and observation schedules were organized and analyzed thematically.

**4.1 Study Findings**

*The objective of this study was to investigate teacher-efficacy as a determinant of teachers’ readiness to use collaborative learning instructional strategy.*

Table 1 below presents the responses of teachers regarding the use of collaborative learning.

**Table 1. Teacher Efficacy in Using Collaborative Instructional Learning Strategy**

Descriptions	SA	A	N	D	SD
	f (%)	f (%)	f (%)	f (%)	f (%)
Collaborative strategy is extensively used	12(34.3)	18(51.4)	3(8.6)	1(2.9)	1(2.9)
Teachers’ level of efficacy in the use of collaborative learning strategy is high	15(42.9)	17(48.6)	1(2.9)	2(5.7)	0(0.0)
The teacher-experience affects teachers’ use of collaborative learning pedagogy	8(22.9)	21(60.0)	5(14.3)	1(2.9)	0(0.0)
Class size affects a teachers’ efficacy in using collaborative learning strategy	11(31.4)	14(40.0)	7(20.0)	1(2.9)	2(5.7)
Availability resources promotes teachers’ level of ‘self-efficacy	9(25.7)	21(60.0)	2(5.7)	3(8.6)	0(0.0)

*Source: Survey Data (2023)*

The above results in table 1 indicate that out of the study sample, 12(34.3%) of the respondents (teachers) strongly agreed that they used collaborative instructional learning strategy, 18(51.4%) just agreed, 3(8.6%) neutral, 1(2.9%) disagreed and 1(2.9%) strongly disagreed. A good percentage of the respondents 15(42.9%) strongly agreed that Teachers’ level of efficacy in using collaborative learning strategy was high where the majority of the respondents 17(48.6%) just agreed. This revelation implies that teachers’ level of efficacy determines the level of use of collaborative learning approach. Therefore, teacher efficacy can be attributed to their readiness in using innovative and learner-centered approaches in teaching.

The above findings concurs with those by Chong and Kong (2016) on the impact of teacher-collaboration on teacher self-efficacy where the results revealed to the affirmative, thus underpinning the importance of teachers’ self-efficacy.

Further, Holzberger and Prestele (2021) agrees to the positive relationship between self-efficacy and classroom management.

## 5. CONCLUSION

This study findings reveal that there is a close effect of teachers' self-efficacy and the methodology they adopt. The focus however was on teachers' efficacy and the use of collaborative teaching/learning in lower primary school contexts. It was concluded that teacher efficacy was a major determinant in not only teaching but using appropriate teaching strategies. Teacher-efficacy was found to determine teachers' use of collaborative learning.

### 5.1 Recommendations

Based on the afore going findings, the study recommends that school managers and the county government empower teachers through retooling courses to boost their self-efficacy not only in the use of collaborative teaching but in all their areas of service as educators.

There is need also to interrogate the role teachers' level of motivation has to do with teachers' teaching effectiveness particularly in the lower grades of schooling.

## REFERENCES

- Bandura, A. (1977). *Self-efficacy: Toward a unifying theory of behavioral change*. *Psychological Review*, 84(2), 191-215.
- Barkley, Cross, & Major, (2005): Collaborative learning techniques: A hand book for College Faculty.
- Chong, W. H., & Kong, C. A. (2012). Teacher collaborative learning and teacher self-efficacy: The case of lesson study. *Journal of Experimental Education*, 80(3), 263-283. <https://doi.org/10.1080/00220973.2011.596854>.
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Holzberger, D., & Prestele, E. (2021). Teacher self-efficacy and self-reported cognitive activation and classroom management: A multilevel perspective on the role of school characteristics. *Learning and Instruction*, 76, 101513.
- Johnson, D., Johnson, R., & Maruyama, G. (1983). *Co-operative learning in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Laal, M., & Laal, M. (2012). Collaborative learning: What is it? *Procedia - Social and Behavioral Sciences*, 31(December 2012),491–495. <https://doi.org/10.1016/j.sbspro.2011.12.092/>
- Muchena, K. C., & Moalisi, W. T. S. (2018). Teacher efficacy and classroom management in Africa: a meta-analysis. *The Independent Journal of Teaching and Learning*, 13(2), 26-35.
- Ndayambaje, I., Orodho, J. A., Ogeta, N., & Ndiokubwayo, K. (2022). Strategizing Learner Support to Scaffold Learning and Internal Efficiency in Distance Training Program for In-Service Secondary School Teachers in Rwanda. *International Journal of Professional Development, Learners and Learning*, 4(2), ep2207. <https://doi.org/10.30935/ijpdll/12104>.
- Schools, S., & Otieno, O. J. (2106). Influence of Personal Teacher Efficacy on Selection of Teaching Methods in Secondary Schools in Kwale County, Kenya. *International Journal of Humanities, Social Sciences and Education*, 3(3). <https://doi.org/10.20431/2349-0381.0303010>.
- Seneviratne, K. P., Abd Hamid, J., Khatibi, A., Azam, F., & Sudasinghe, S. (2019). Teachers' Sense of efficacy: A Challenge for professional development towards teaching science as inquiry. *Science education international*, 30(4), 274-283.
- Tharayil, S., Borrego, M., Prince, M., Nguyen, K. A., Shekhar, P., Finelli, C. J., & Waters, C. (2018). Strategies to mitigate student resistance to active learning. *International Journal of STEM Education*, 5(1). <https://doi.org/10.1186/s40594-018-0102-y>.
- Waweru. (2018). Influence of Teacher Preparedness on Implementation of Competency Based Curriculum in Public Primary Schools in Nyandarua North Sub- County, Kenya. *The Journal of Competency-Based Education*, 3(3), e01171.