

CHOOSING AN EFFECTIVE ASSESSMENT TECHNIQUE: INVESTIGATING THE EFFECTS OF PEER AND SELF-ASSESSMENT TECHNIQUES ON STUDENTS' ACHIEVEMENT IN SUMMARY WRITING

Chioma Patience Patrick *PhD*

Department of Arts Education, University of Nigeria Nsukka

Abstract

Self-assessment and peer assessment have been increasingly adopted in language learning classrooms as formative assessment techniques. In this study, researchers compared the effect of self-assessment, peer assessment, and teacher assessment on students' achievement in summary writing. The study adopted a quasi-experimental design. Using a multi-stage sampling technique, 207 Senior Secondary II students (98 male and 109 female) in six complete classes were recruited for the study. Data were collected at pre-test and post-test using an adopted summary passage titled "Summary Achievement Test in English Language (SATEL)". Data were analyzed using analysis of covariance and the results showed that self- and peer assessment improved students' summary writing skills more than instructor assessment. It was also discovered that self-and peer assessment had a comparable impact on students' ability to write summaries. The study presented alternate formative assessment strategies that might be used in summary writing classes to increase students' achievement. It is consequently essential that language education teachers be taught and retrained in these creative formative assessment approaches. Similarly, teacher education curricula may require specific improvements that incorporate the use of successful formative assessment techniques such as peer and self-evaluation to increase instructors' acceptance of the assessment approaches.

Keywords: peer assessment; self-assessment, summary writing; achievement; students.

1. INTRODUCTION

Writing, speaking, reading and listening make up the four main language skills. In addition to their function as a means of communication, writing systems are valued because of their capacity to preserve language and knowledge over time and space. Since written communication has become very popular both in formal and informal settings, readers are often faced with the challenge of reading long and large volumes of texts which frequently tend to consume time, space and other resources. To maximize resources and improve understanding of written texts, it is often preferred that written communication be brief yet contain the key message. The desire to meet the requirement of concise written communication probably gave rise to writing summaries. In general, a summary is a condensed, quick synopsis of a longer text or a word composition. Its primary aim is to give the reader an idea of what a piece of text is all about without the reader having to read the text itself (Sari & Niswatin, 2022). To ensure that students acquire this important skill, summary writing is taught as a major part of the English language curriculum in all Nigerian secondary schools.

To be able to write good summaries, Nigerian students are expected to possess good writing skills. Unfortunately, many of the students show poor writing skills (Mojaye, 2015; Putri & Aminatun, 2021), hence, they struggle to write good summaries in English. There are pieces of evidence that many secondary school students in Nigeria show poor achievement in summary writing (Okome et al., 2021; Olagbaju, 2020). This is worrisome given that the English language is Nigerian's lingua franca and is used as the major language of communication in multiple contexts. And without strong summary writing skills in English,

students may struggle to communicate effectively in written English. Thus, skill in summary writing is a desired English language learning goal as it makes it possible for students to be able to communicate effectively, especially in writing both in and outside the classroom.

Students' poor summary writing skills and poor achievement in summary writing have been attributed to several factors. First, some authors have argued that writing skill is the most complex skill among all language skills (Rahimi & Zhang, 2018; Ghaderi et al., 2022). Hence, mastering the skill (including summary writing) always proves challenging to most students, especially ESL learners (Putri & Aminatun, 2021; Lin & Maarof, 2013). Second, most students lack interest in developing effective summary writing skills (Ukoha et al., 2022). Since interest in a particular skill may be strongly related to the tendency to learn and master such a skill (Wu et al., 2019; Kpolovie et al., 2014), students who show poor interest in summary writing may likely develop poor summary writing skills. Third, conventional instructional methods including assessment techniques used in teaching and learning summary writing in schools appear to be inadequate (Ikonta & Maduckwe, 2012; Onipede & Alu, 2022). While some studies have addressed the issue of improving students' interest in summary writing (Maor et al., 2022; Olagbaju, 2019) and others have suggested alternative teaching techniques for summary writing especially among ESL learners (Okome et al., 2021; Olagbaju, 2019), it was difficult to find researches that have examined formative assessment approaches employed while teaching summary writing and how these impact students' achievement in summary writing in Nigeria.

It is important to note that adopting an effective formative assessment strategy could supplement the teaching method as it could help the teacher to probe students' learning, diagnose their problems and provide effective and timely feedback (Schildkamp et al., 2020). Therefore, with an ineffective assessment technique, the impact due to the use of inadequate teaching methods as well as other inhibitive factors in learning, instead of diminishing, could only become more visible. To the best of the knowledge of the researchers, studies are scarce which have examined the effect of assessment techniques on students' achievement in summary writing in Nigeria. The unavailability of such information could limit policy impact and derail efforts made toward improving students' achievement in summary writing in Nigeria. To prevent this, the present study examined the effects of peer and self-assessment techniques on students' achievement in summary writing in Nigeria. The basics

2. LITERATURE REVIEW

2.1 Formative Assessment

For the best results, the process of teaching and learning during classroom lessons must be "assessed". Teacher observations, classroom discussions, and analysis of student work, including homework and tests, are all possible methods for assessing learning. To be formative, assessment results must be used to adapt teaching and learning to meet student needs. As a result, the objective of formative assessment of learning is to learn what pupils know (and don't know) in order to make appropriate modifications in teaching and learning. This position was captured by Cauley and Mcmillian (2010) who defined formative assessment as a procedure that collects evidence of student learning and allows for instruction to be changed in response to feedback.

From the foregoing, three points are evident with respect to formative assessment: (a) there must be an intentional effort during classroom learning to query the students' knowledge (that is, what they know and don't know), (b) an environment is then created (in form of teacher observations, classroom discussions, and analysis of student work, including responses to questions, homework, and tests) to enable the teacher to gather evidence-based data of students' knowledge, (c) such information is used as feedback to modify instruction to accommodate learners needs and improve learning. This present conceptualization of formative assessment

is one out of many. In fact, because of the divergent opinions of scholars on what entails formative assessment, Bennett (2011) submitted that we need to be more reasonable in our claims about and expectations for formative assessment because it is still conceptually and practically under development. However, although scholars are yet to agree on what the term "formative assessment" encompasses (Van der Kleij et al., 2015; Bennett, 2011; Torrance, 2012; Wiliam, 2011, Dunn & Mulvenon, 2009), it is generally acknowledged as a good classroom practice for teachers (Torrance, 2012).

The biggest support for formative assessment as a good classroom practice probably came from a study conducted by Black and Wiliam (1998a). To ascertain if formative assessment enhances academic standards in the classroom, Black and Wiliam (1998a) undertook a thorough analysis of 250 journal articles and book chapters that were selected from a considerably larger pool. They came to the conclusion that efforts to improve formative assessment result in considerable learning gains when measured by comparing the average gains in test scores of the kids who participated in the innovation with the range of scores reported for typical groups of students on the same tests. Formative assessment appeared to benefit low-achieving children, including those with learning difficulties, more than it did other students, with effect sizes ranging between .4 and .7 (Black and Wiliam, 1998b). Although the findings of this study generated a lot of controversies (for example see Dunn & Mulvenon, 2009; Bennett, 2011), its contributions towards the understanding of formative assessment may not be denied.

To be able to gather information on students' learning as part of the formative assessment process, teachers employ various techniques. In their study, Pla-Campas et al. (2016) grouped the formative assessment techniques into two broad groups: (a) participatory assessment techniques (PAT) and, (b) non-participatory assessment techniques (NPAT). According to Pla-Campas et al. (2016), PAT includes formative assessment of students' learning involving the participation of students themselves to a high extent. Examples of such assessment techniques include self-assessment, peer assessment, and democratic assessment. On the other hand, NPAT mostly uses teachers with minimal student participation in the process. PAT is related to what Schildkamp et al. (2020) referred to as assessment for learning (AfL). According to Schildkamp et al. (2020), the key component of AfL is the continuous interaction between learners and the teacher to meet learners' needs. That is, AfL takes place in everyday classroom practice in the form of continual dialogues and feedback loops, in which (immediate) feedback is used to direct further learning. In this way, assessment is made to function as an integral component of learning, giving students a prominent role through peer and self-assessment that can enhance their comprehension of what and why they are learning. The present study focused on self-and peer assessment techniques in teaching and learning summary writing.

2.2 *Self-assessment*

Assessment for Learning (AfL) is a crucial component that encourages students to actively participate in evaluation; this can be done by having them evaluate themselves or others. When a student evaluates his learning, this is known as self-assessment. That is, self-assessment occurs when students judge their own work in order to increase performance and pinpoint gaps between present and intended performance (McMillan & Hearn, 2008). According to the authors, self-assessment usually involves two processes: (a) keeping track of and assessing the standard of one's thinking and conduct while learning and (b) finding ways to deepen one's knowledge and abilities. Panadero et al. (2016) noted that self-assessment is a continuum that extends from common classroom assignments like asking students to grade their own work without further reflection (i.e., self-grading/self-marking) to having them conduct thorough analyses of their own performance on challenging tasks. To ensure the

effectiveness of self-assessment, teachers must define the criteria by which students assess their work, teach students how to apply the criteria, give students feedback on their self-assessments, guide students on using self-assessment data to improve performance, provide sufficient time for revision after self-assessment, do not turn self-assessment into self-evaluation by counting it toward a grade (Andrade & Valtcheva, 2009; Ross, 2006). Among other things, Spiller (2012) highlighted some of the benefits of self-assessment. These include: self-evaluation encourages reflection on one's learning as well as builds on a natural tendency to check out the progress of one's own learning; it also promotes learner responsibility and independence, encourages student ownership of the learning, emphasizes the formative aspects of assessment and encourages a focus on process rather than a product of learning.

The research on self-assessment has focused predominantly on its efficacy in promoting both academic achievement and self-regulated learning. However, recently more studies are being conducted to determine its validity. Or put more clearly, researchers are becoming interested in ascertaining the extent to which students' self-descriptions and evaluations of their work are truthful or veridical (Butler, 2011). On the promotion of academic achievement and self-regulated learning, previous studies suggest that students who participate or engage in self-assessment practices tend to achieve higher academically and show improved self-regulated learning skills (McDonald & Boud, 2003; Yan et al., 2020; Yan et al., 2021; Yang et al., 2022). In a recent meta-analysis conducted by Yan et al., (2021) which was aimed at synthesizing the effects of self-assessment on academic performance, it was found that the overall effect of self-assessment interventions was significant with an effect size (Hedge's g) of 0.455. This finding corroborated a previous report by Brown and Harris (2013) who showed that self-assessment has positive effects on student performance with a median effect size (Cohen's d) between 0.40 and 0.45. On the validity of self-assessment, researchers have tried to study of consistency of student self-assessments relative to teacher ratings and self-assessments relative to test scores (Brown et al., 2015). In these studies, the results of self- and teacher assessment were discovered to be consistent (Chang et al., 2012; Adib-Hajbaghery et al., 2012; Lew et al., 2010). Based on his review of some sample studies, Brown et al., (2015) showed that in general, there are weak to moderate levels of agreement between student self-assessments and the ratings of their teachers or performances on tests. Oscarson (2013) advised teachers to be more explicit in stating the assessment goals, in order to increase the likelihood of the learners estimating their learning in a meaningful way, especially in language education.

2.3 *Peer Assessment*

Throughout the past three decades, peer evaluation has drawn a great deal of scholarly attention, with many educational scholars promoting its incorporation into classroom instruction and practice. As defined by Topping (2009), peer assessment is a process whereby students evaluate and specify the standard, worth, or quality of output or performance of other students who are their peers. Writing, oral presentations, portfolios, test performance, and other specialized behaviors are examples of products that can be evaluated in peer assessment. Brown (2015) gave a very succinct definition of peer assessment as "Appraisal of my work by a fellow learner in relation to a specific learning intention, goal, or set of criteria" (p.6). The Center for Teaching Innovation (CTI) (2023) noted that peer assessment or peer review provides a structured learning process for students to critique and provide feedback to each other on their work. Furthermore, peer assessment was cited as being crucial because it could enable students to take ownership of and manage their own learning, teach students how to evaluate others and provide helpful criticism in order to develop lifelong assessment skills, improve students' learning through the dissemination of knowledge and the exchange of ideas, and inspire students to pay closer attention to the course material (CTI, 2023).

The above definitions highlighted a few points about peer assessment. First, it can be formative or summative. It is formative if it is incorporated into an ongoing lesson with its outcome used to improve learning. It is summative if it is conducted at the end of a given learning period with its outcome mostly used to assign grades and quantify or classify learning. Second, the assessment must be based on established criteria agreed upon prior to the assessment. Third, both the assessor and the assessee are peers. To further highlight the nature of peer assessment, there are a number of questions that must be asked and answered while conducting peer assessment. These include: What (a paper, web page, poster, presentation, film, group project) will the students assess? What abilities are students supposed to acquire and exhibit while conducting this assessment? What products do students produce when they evaluate their peers (grades, rankings, guide questions, and qualitative feedback)? Will students offer feedback that is summative, formative, or both? Will peer evaluation completely, partially, or supplementally replace instructor evaluation? (Center For Excellence in Learning and Teaching, 2022). Other questions include: How will peer assessor assignments be made? (For instance, pair-matched, teacher selection, self-selection, small group). Will there be conversations between the peers assessing one another or will the reviews be anonymous? When, and how will students receive instruction on how to evaluate the work of their classmates and offer feedback? Reflecting on and finding answers to these questions could ensure that peer assessment outcomes are reliable and valid.

Previous studies on peer assessment appear to have followed three general trends. Some researchers focused on the impact of peer assessment on the cognitive outcome of learning such as students' achievement or academic performance (Li et al., 2020; Double et al., 2020; Yan et al., 2022) while other researchers have looked into the impact of peer assessment on the non-cognitive outcome of learning such as conscientiousness, self-efficacy, motivation amongst others (Richardson, et al., 2012; Robbins et al., 2004, Li et al., 2021). Researchers have also shown interest in improving the reliability of peer assessment scores. Such studies have compared peer assessment scores with instructors' ratings (Li et al., 2016; Chang et al., 2012), or ascertained teachers' opinions about peer assessment outcomes (Panadero & Brown, 2016; Meletiadou & Dina, 2022). In the first part, meta-analysis findings have revealed an overall small to medium effect of peer assessment on academic performance (Double et al., 2020; Li et al., 2020). A similar meta-analysis by Yan et al., (2022) also showed that peer assessment ($g = 0.606$), had meaningful effects on academic performance. Concerning non-cognitive outcomes, Li et al. (2021) performed a meta-analysis on non-cognitive outcomes utilizing 43 effect sizes from 19 studies, with the majority of non-cognitive outcomes being learning techniques and academic mindsets. A random effects model was used to determine that, in comparison to students who had not engaged in peer assessment, those who did show a 0.289 standard deviation unit improvement in non-cognitive outcomes. Among researchers interested in determining the consistency of peer assessment compared to instructors' ratings, Li et al. (2016) reported a moderately strong ($r = 0.63$) correlation between peer and teacher ratings. The meta-analysis further highlighted factors, such as peer assessment being voluntary and non-anonymous, and peer raters being involved in developing assessment criteria among others, which could strengthen this correlation. In contrast, consistency was not discovered between peer and teacher-assessment according to the findings of a comparative analysis reported by Chang et al. (2012). Nevertheless, findings suggest that teachers' perception of peer assessment is positive ($r = 0.78$) (Araromi & Olatunji, 2019). Although some teachers may be reluctant to use peer assessment with their students (Meletiadou & Dina, 2022; Panadero & Brown, 2016), most teachers who have used peer assessment reported that peer assessment facilitated learning by making the educational process easier for learners as well as caters to diverse learners' needs and fosters autonomy. (Meletiadou & Dina, 2022; Panadero & Brown, 2016; Farooq et al., 2015).

2.4 *The present study*

So far, the authors have made effort to x-ray the nature of formative assessments through peer and self-assessment. A few points stood out. First, formative assessment has been encouraged as an impactful classroom practice. Second, both peer and self-assessment could positively impact self-regulated learning, cognitive learning outcomes as well as non-cognitive learning outcomes. Third, if handled properly, the outcomes of peer and self-assessment are consistent with instructors' ratings. In Nigeria, few studies related to self and/or peer assessment have been conducted in relation to teaching and learning writing skills in general (for example, Araromi & Olatunji, 2019; Onwuka & Uloh-Bethels, 2020). No study existed, to the best of the knowledge of the present researchers, which has specifically addressed the issue of self- and peer assessment in teaching and learning summary writing. Although one may be tempted to approximate the findings of previous studies, such generalizations are at best, estimates, and may not be reliable. Therefore, to fill this gap in the literature, the present study would answer the following questions: Which of the three assessment techniques – self-, peer, and teacher assessment would significantly improve pupils' summary writing skills the most?

3. Research method

3.1 *Research design*

The study adopted a quasi-experimental design. Random assignment of students to research groups was done at the school level. There were three groups: a self-assessment group, a peer assessment group, and a teacher assessment group. The pre-test scores showed that students in various groups were comparable.

3.2 *Sample and sampling technique*

Six co-educational schools in the Nsukka Education Zone of Enugu State in Nigeria provided the sample for the study which are 207 Senior Secondary II students (98 male and 109 female) in six complete classes. Using a multi-staged sample technique, a local government area was randomly chosen from the Nsukka Education Zone, and all co-educational schools within the local government area were then purposefully chosen. Six co-educational schools were chosen at random from among these institutions to make up the study sample. Then, each of the three study groups was randomly given a pair of schools.

3.3 *Data collection instruments*

The instrument used for data collection was titled: Summary Achievement Test in English Language (SATEL). The SATEL included two summary passages adopted from the West African Senior Secondary Certificate Examination 2018 and 2020 summary section of the English language examination. The researcher did not modify any part of the passages and the questions. Passage 1 had six paragraphs while passage 2 had four paragraphs. Each of the passages had two questions requesting the students to supply three sentences per question. Each of the sub-questions carried five marks, and a total of 30 marks for each passage. The two passages were chosen because they have the same level of difficulty as revealed by the test of equivalence conducted by the researchers. The estimate of equivalence reliability was obtained using Pearson's $r = 0.806$. Furthermore, the overall scorers' reliability of SATEL was conducted using Kendall coefficient of concordance. The reliability coefficient obtained was Kendall's $W = 0.868$. Hence, the instrument was deemed reliable.

3.4 *Experimental procedure*

The researchers adopted the following procedure to implement the experiment. Before the start of the experiment, we sought the permission and cooperation of the principals of the schools involved to enable the researcher to conduct the research in their schools. Then we trained the research assistants (English language teachers in the selected schools) on how to experiment. Separate training sessions were conducted in each of the schools at times convenient to the teachers. The training was conducted using a lesson plan appropriate for each group. The lesson plan for the teacher assessment group was prepared in a similar way to that of the self- and peer assessment groups. The basic difference is in the assessment procedure. Whereas the students assessed themselves in the self-assessment group (experimental group 1), and the peers assessed one another for the peer assessment group (experimental group 2), the teachers assessed the students in the control group. The assessment procedure for the self- and peer assessment groups was adapted from Offorma (1998). The experimental period lasted for 5 weeks with one lesson held once a week. A typical lesson consisted of an (a) selection of learning objectives, (b) identification of what the students have learned, (c) administering of assessment to identify what the students have not learned including problems they encountered during the lesson, (d) collation of scores and (e) feedback.

3.5 *The procedure of data collection*

Data for the analysis was collected twice in each study group. This was different from assessment data collected during classroom instruction and used as means of feedback to improve instruction and learning. The first set of data collection was a pre-test conducted before the experiment in each of the groups using SATEL. The second was collected at the end of the 5-weeks experimental period as a post-test using SATEL.

3.6 *Data analysis*

Pre-test and post-test data were cleaned for analysis using the Statistical Package for the Social Science (SPSS) version 27. Data were checked for outliers and normality. Analysis of covariance (ANCOVA) was used to determine the significant impact of the assessment techniques on student writing skills.

4. Results

Research Question: Which of the three assessment techniques – self-, peer and teacher assessment would significantly improve pupils' summary writing skills the most?

Table 1: Pretest and post-test mean achievement scores of students assessed using self-, peer and teachers' assessment techniques

Groups	N	Pretest		Posttest		Mean Difference
		\bar{X}	SD	\bar{X}	SD	
Self-assessment	70	11.03	2.72	20.60	2.52	9.57
Peer assessment	80	11.59	3.56	20.58	2.59	8.99
Teachers' assessment	57	10.51	2.42	12.04	2.38	1.53

Note: N = Number of Respondents, \bar{X} = Mean, SD = Standard deviation

Table 2: ANCOVA results of the difference in the mean achievement scores of students assessed using self-, peer and teachers' assessments

Source	Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3048.518 ^a	6	508.086	78.630	< .001	.702
Intercept	4672.421	1	4672.421	723.089	< .001	.783
Assessment	2892.464	2	1446.232	223.814	< .001	.691
Error	1292.351	200	6.462			
Total	73148.000	207				
Corrected Total	4340.870	206				
a. R Squared = .702 (Adjusted R Squared = .693)						

Note: df = Degree of Freedom, F= F-ratio,

Result in Table 1 showed that students who were assessed using self-assessment technique had a mean achievement score of (\bar{X} = 11.03, SD = 2.72) at pre-test and (\bar{X} = 20.60, SD = 2.52) at post-test while those assessed with peer assessment technique had mean achievement score of (\bar{X} = 11.59, SD = 3.56) at pre-test and (\bar{X} = 20.58, SD = 2.59) at post-test. Furthermore, students who were assessed using teachers' assessment technique had mean achievement score of (\bar{X} = 10.51, SD = 2.42) at pre-test and (\bar{X} = 12.04, SD = 2.38) at post-test. To ascertain whether the difference in mean achievement of the groups were significant, Table 2 showed that there was significant difference in the mean achievement of students in the three assessment groups, $F(1, 207) = 231.81, p < .001, \eta^2_p = .691$. In particular, the effect size of ($\eta^2_p = .691$) indicates that 69.1% variance in the achievement scores of students in summary writing is explained by difference in assessment techniques. To pinpoint the exact difference among the groups in terms of students' achievement in summary writing, a post-hoc test was conducted using Sheffe 'test. The result is shown in the table below.

Table 3: Post-Hoc test of significant difference between the assessment techniques on students' achievement in summary writing

(I) Assessment	(J) Assessment	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
Self-Assessment	Peer Assessment	0.02	.998	-1.00	1.05
	Teachers Assessment	8.56 [*]	< .001	7.45	9.68
Peer Assessment	Self-Assessment	-0.02	.998	-1.05	1.00
	Teachers Assessment	8.54 [*]	< .001	7.45	9.63
Teachers Assessment	Peer Assessment	-8.54 [*]	< .001	-9.63	-7.45
	Self-Assessment	-8.56 [*]	< .001	-9.68	-7.45

Based on observed means.

The error term is Mean Square (Error) = 6.472.

*. The mean difference is significant at the 0.05 level.

Results from Table 3 revealed that students in self-assessment group as well as peer assessment group had significantly higher average achievement scores in summary writing compared to students in the teacher assessment group ($p < 0.001$). However, there was no

significant difference in the mean achievement scores of students in self-assessment group compared to those in peer assessment group.

5. Discussion

This study sought to determine which of the three assessment techniques – self-, peer, and teacher assessment would significantly improve pupils' summary writing skills the most. According to the findings, self-and peer assessment improved students' summary writing skills more than instructor assessment. It was also discovered that self-and peer assessment had a comparable impact on students' ability to write summaries. The present findings are in line with the outcome of the meta-analysis study conducted by Double et al., (2020) which reported that peer assessment improved academic performance compared with no assessment and teacher assessment but was not significantly different in its effect from self-assessment. Similarly, the findings are related to that of Yan et al., (2022) who noted that although peer and self-assessments had a significant impact on students' performance, the difference between the effects of self-assessment and peer assessment interventions, conducted on different groups within the same study, was not statistically significant. The findings of the present study corroborated that of several other studies which had suggested that self-and peer assessment improved students' performance more than teacher assessment (Campbell et al., 2001; Gonzalez de Sande & Godino Llorente, 2014; Inko-Tariah, 2019; Ibrahim, 2022), especially in writing performance (Elfiyanto, 2019). Furthermore, on the comparable impact of self-and peer assessment on students' performance, the present finding affirms the results of existing studies that self-and peer assessment have a similar impact on students' performance (Ozogul & Sullivan, 2009; Esfandiari & Tavassoli, 2019; Yan et al., 2022). On the contrary, Birjandi, and Siyyari (2010) in their findings suggested that peer assessment was more effective in improving the writing performance of students than self-assessment. Similarly, Khonbia and Sadeghi (2013), Gonzalez de Sande and Godino Llorente (2014), Udechukwu (2020), and Stancic (2021) also reported that the peer-assessment group outperformed the self-assessment group significantly in course achievement.

From the foregoing, it does appear that self-and peer assessment tend to be more effective in improving students' achievement or performance. However, previous studies have produced mixed results when the impact of self-assessment and peer assessment are compared based on students' performance. As shown in the present study, self-and peer assessments were very effective in improving students' summary writing skills because self- and peer assessments involved processes that can support students' autonomous learning, social exchange, and critical thinking (Bozkurt, 2020). Furthermore, these assessment techniques propose a pedagogical model which helps students to better understand the teaching–learning process, offering them the opportunity to use assessment feedback for revising and improving their learning (Kearney, 2019). Although self- and peer assessment may have some problems, for example, in self-assessment students tend to give themselves higher scores than those given by the instructors for their performance (González-Betancor et al., 2019), this could be checked by teachers working with the students to ensure that there are established clear learning targets, well-defined evaluative criteria, available tools for assessment, and sufficient time for reflection (McMillan & Hearn, 2008). Similarly, students may encounter difficulties when completing peer assessments, such as being aware of their academic weaknesses, doubting their objectivity, the influence of interpersonal factors like friendship, and the conviction that teachers should be the ones to provide feedback (Cain, 2021). To overcome these obstacles, Spiller (2011) advises that learners be guided by examples and role models and, if at all possible, should be involved in developing their assessment standards. In all, self- and peer evaluation promotes a student-centered approach to education and assists students in developing self-regulated and independent behaviors and attitudes during the learning process

(Concina, 2022). This differs from the teacher assessment strategy, which concentrated primarily on evaluating individual performance, and disvalues the relevance of providing particular insights for altering learning tactics and making the learning process more effective and significant.

6. Conclusion

The present study showed that self- and peer assessment techniques could offer certain pedagogical benefits more than teachers' conventional assessment techniques, especially in teaching and learning summary writing. The findings have further provided empirical support for the effectiveness of self- and peer assessment as viable formative assessment tools for improving students writing skills, especially in summary writing. Therefore, language education teachers are encouraged to improve their classroom practice by incorporating self- and/or peer assessment in their daily lesson plans, especially in summary writing classes.

Despite the gains associated with the present study, its findings should be interpreted with caution bearing the following limitations in mind. First, the present study considered a specific context and area of writing, which is, summary writing. therefore, its results may not be generalized to all forms of written text. Second, the sample consisted of secondary school students. A similar study using a different sample may yield different results. Third, the uniqueness of the study context, that is, the education system of Nigeria, which may differ from elsewhere may further limit the generalizability of the study findings. Bearing these limitations in mind, future related research may expand its scope and accommodate more aspects of writing different from summary writing. Also, more studies are needed both within and outside Nigeria focusing on the impact of self- and peer assessment techniques on students' summary writing skills. This could increase the relevance and generalizability of research findings.

References

- Adib-Hajbaghery, M., Karbasi-Valashani, K., & Heidari-Haratmeh, A. (2012). Correlation of clinical skills self-assessment of nursing internship trainees with their teachers' evaluation. *Nursing and Midwifery Studies*, 1(2), 94-9.
- Andrade, H., & Valtcheva, A. (2009). Promoting learning and achievement through self-assessment. *Theory into practice*, 48(1), 12-19.
- Araromi, M. O. & Olatunji, S. O. (2019). Teachers' perception of peer assessment of essay writing among senior secondary students in Lagelu local government area, Oyo state, Nigeria. *European Journal of Education Studies*, 6(8), 135-147. <https://doi.org/10.5281/zenodo.3544738>
- Bennett, R. E. (2011) Formative assessment: a critical review. *Assessment in Education: Principles, Policy & Practice*, 18(1), 5-25. <https://doi.org/10.1080/0969594X.2010.513678>
- Birjandi, P., & Siyyari, M. (2010). Self-assessment and peer-assessment: A comparative study of their effect on writing performance and rating accuracy. <https://www.sid.ir/FileServer/JE/87620100102.pdf>
- Black, P., & Wiliam, D. (1998a). Assessment and classroom learning. *Assessment in Education: Principles Policy and Practice*, 5(1), 7-73.
- Black, P., & Wiliam, D. (1998b). *Inside the black box: Raising standards through classroom assessment*. London: GL Assessment.
- Bozkurt, F. (2020). Teacher candidates' views on self and peer assessment as a tool for student development. *Australian Journal of Teacher Education*, 45, 47-60.
- Brown, G. T. (2015, October 2). Self and Peer Assessment. In *Assessment & Grading Seminar Series*. Learning Resource Centre, Höskolan Kristianstad, Sweden. <http://www.hkr.se/sv/lrc/seminarieserie/bedomning-och-betygsattning-ht2015/>

- Brown, G. T. L., & Harris, L. R. (2013). Student self-assessment. In J. McMillan (Ed.), *The SAGE handbook of research on classroom assessment* (pp. 367–393). Thousand Oaks, CA: SAGE.
- Brown, G. T., Andrade, H. L., & Chen, F. (2015). Accuracy in student self-assessment: directions and cautions for research. *Assessment in Education: Principles, Policy & Practice*, 22(4), 444-457.
- Butler, R. (2011). Are positive illusions about academic competence always adaptive, under all circumstances: New results and future directions. *International Journal of Educational Research*, 50, 251–256. <https://doi.org/10.1016/j.ijer.2011.08.006>
- Cain, M. (2021, Feb 27). *Peer Feedback*. Retrieved From Social Science LibreTexts Libraries website: <http://brpx.2.vu/2>
- Campbell, K. S., Mothersbaugh, D. L., Brammer, C., & Taylor, T. (2001). Peer versus self-assessment of oral business presentation performance. *Business Communication Quarterly*, 64(3), 23-40.
- Cauley, K. M. & McMillan, J. H. (2010). Formative assessment techniques to support student motivation and achievement. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 83(1), 1-6. <https://doi.org/10.1080/0009865090326778>
- Center For Excellence in Learning and Teaching (2022, February 3). *Using Student-to-Student Peer Assessment*. Retrieved From the Iowa State University website: <https://www.celt.iastate.edu/instructional-strategies/evaluating-teaching/peer-assessment/>
- Center for Teaching Innovation. (2023, March 23). *Peer assessment*. Retrieved From the Cornell University website: <https://teaching.cornell.edu/teaching-resources/assessment-evaluation/peer-assessment>
- Chang, C. C., Tseng, K. H., & Lou, S. J. (2012). A comparative analysis of the consistency and difference among teacher-assessment, student self-assessment and peer-assessment in a Web-based portfolio assessment environment for high school students. *Computers & Education*, 58(1), 303-320.
- Concina, E. (2022). The Relationship between Self- and Peer Assessment in Higher Education: A Systematic Review. *Trends in Higher Education*, 1, 41–55. <https://doi.org/10.3390/higheredu1010004>
- Double, K. S., McGrane, J. A., & Hopfenbeck, T. N. (2020). The impact of peer assessment on academic performance: A meta-analysis of control group studies. *Educational Psychology Review*, 32, 481-509.
- Dunn, K. E. & Mulvenon, S. W. (2009). A Critical Review of Research on Formative Assessments: The Limited Scientific Evidence of the Impact of Formative Assessments in Education. *Practical Assessment, Research, and Evaluation*, 14 (7). <https://doi.org/10.7275/jg4h-rb87>
- Elfiyanto, S. (2019). The Effect of Peer Assessment on Students' Performance in Writing Narrative Essays. *Advances in Social Science, Education and Humanities Research*, 434, 78-82.
- Esfandiari, S. & Tavassoli, K. (2019). The Comparative effect of self-assessment vs. peer-assessment on young EFL learners' performance on selective and productive reading tasks. *Iranian Journal of Applied Linguistics (IJAL)*, 22(2), 1-35.
- Farooq, O., Zeshan, A., Hafeez, A., Hassan, M. U. (2015). Perceptions of Teachers towards Active Learning through Peer Teaching and Peer Assessment. *Language in India*, 15 (3), 149-157.
- Ghaderi, E., Rouhi, A., Tabrizi, A. R. N., Jafarigohar, M., & Hemmati, F. (2022). Writing Task Complexity, Task Condition and the Efficacy of Feedback. *Journal of Language and Education*, 8(4), 73-87.

- Gonzalez de Sande, J. C., & Godino Llorente, J. I. (2014). Peer Assessment and Self-assessment: Effective Learning Tools in Higher Education. *International Journal of Engineering Education*, 30(3), 711-721.
- González-Betancor, S.M., Bolívar-Cruz, A., Verano-Tacoronte, D. (2019). Self-assessment accuracy in higher education: The influence of gender and performance of university students. *Active Learning in Higher Education*, 20, 101–114
- Ibrahim, B. M. (2022). Effects of peer-assessment strategy on students' academic achievement in Mathematics in senior secondary schools of Nasarawa local government area, Kano state, Nigeria. *International Journal of Research in Education and Sustainable Development*, 2(10), 15-25.
- Ikonta, N. R., & Maduekwe, A. N. (2012). Reading strategies: a catalyst for enhancing comprehensive and summary writing proficiency among high school students in Lagos, Nigeria. *Redefining Community in Intercultural Context*, 1(1), 249-256.
- Inko-Tariah, D. C. (2019). Effect of Self-Assessment on Academic Performance of Secondary School Students in Rivers State of Nigeria. *International Journal of Arts Humanities and Social Sciences Studies*, 4(8), 1-8.
- Kearney, S. (2019). Transforming the first-year experience through self and peer assessment. *Journal University Teaching and Learn Practice*, 16, 20–35. <https://ro.uow.edu.au/jutlp/vol16/iss5/3>
- Khonbia, Z. A. & Sadeghi, K. (2013). The effect of assessment type (self vs. peer) on Iranian university EFL s course achievement. *Procedia - Social and Behavioral Sciences*, 70, 1552 – 1564. <https://doi.org/10.1016/j.sbspro.2013.01.223>
- Kpolovie, P. J., Joe, A. I., & Okoto, T. (2014). Academic achievement prediction: Role of interest in learning and attitude towards school. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 1(11), 73-100.
- Lew, M. D., Alwis, W. A. M., & Schmidt, H. G. (2010). Accuracy of students' self-assessment and their beliefs about its utility. *Assessment & Evaluation in Higher Education*, 35(2), 135-156.
- Li, H., Bialo, J. A., Xiong, Y., Hunter, V. C. & Guo, X. (2021). The Effect of Peer Assessment on Non-Cognitive Outcomes: A Meta-Analysis. *Applied Measurement in Education*. <https://doi.org/10.1080/08957347.2021.1933980>
- Li, H., Xiong, Y., Hunter, C. V., Guo, X., & Tywoniw, R. (2020). Does peer assessment promote student learning? A meta-analysis. *Assessment & Evaluation in Higher Education*, 45(2), 193-211.
- Li, H., Xiong, Y., Zang, X., L. Kornhaber, M., Lyu, Y., Chung, K. S., & K. Suen, H. (2016). Peer assessment in the digital age: A meta-analysis comparing peer and teacher ratings. *Assessment & Evaluation in Higher Education*, 41(2), 245-264.
- Lin, O. P., & Maarof, N. (2013). Collaborative writing in summary writing: Student perceptions and problems. *Procedia-Social and Behavioral Sciences*, 90, 599-606.
- Maor, M. C., Ukoha, E., Atim, D. G. & Nnamani P. A. (2022). Effect of 5Es Constructivist Instructional Approach on Students' Interest in Summary Writing in Benue State, Nigeria. *International Journal of Language Learning and Applied Linguistics*, 1(3), 10-18.
- McDonald, B., & Boud, D. (2003). The impact of self-assessment on achievement: The effects of self-assessment training on performance in external examinations. *Assessment in education: principles, policy & practice*, 10(2), 209-220.
- McMillan, J. H., & Hearn, J. (2008). Student self-assessment: The key to stronger student motivation and higher achievement. *Educational horizons*, 87(1), 40-49.

- Meletiadiou, E. & Dina, T. (2022). Exploring EFL Teachers' Perceptions of the Use of Peer Assessment in External Exam-Dominated Writing Classes. *Languages* 7(16), 2-18. <https://doi.org/10.3390/languages7010016>
- Mojaye, E. M. (2015). Mobile phone usage among Nigerian university students Aand its impact on teaching and learning. *Global Journal of Arts Humanities and Social Sciences*, 3(1), 29-38.
- Offorma, G.C. (1998). The technique of peer assessment in ESL University. In Otagburuagu, E.J. (Ed) *Common Frontiers in Communication Skills: Focus on the Nigerian University System*. Kano: Global Links Communications
- Okome, E. O., Danner, R. B., & Ofuani, F. N. (2021). Effects of three instructional strategies on senior secondary school students' achievement in summary writing. *Journal of Teaching and Teacher Education*, 9(1).
- Olagbaju, O. O. (2019). Effects of explicit instructional strategy and cognitive styles on achievement of senior secondary students in summary writing in Ibadan, Nigeria. *Global Scientific Journals*, 7(6), 58-79.
- Olagbaju, O. O. (2020). Cognitive styles and gender as predictors of students' achievement in summary writing in selected secondary schools in Ibadan, Nigeria. *Education Research International*, 1-9.
- Onipede, F. M., & Naomi, A. L. U. (2022). Assessing summary writing skills through ideational grammatical metaphor among TVET students at federal polytechnic Ilaro, Nigeria. *Proceedings of the 3rd International Conference, The Federal Polytechnic, Ilaro, 16-17 Aug., 2022*.
- Onwuka, G.T. & Uloh-Bethels, A.C (2020). Peer Assessment and Learner Autonomy in Igbo and English Language Essay Writing. *Journal of CUDIMAC (J-CUDIMAC)*, 8(1), 102-116.
- Oscarson, M. (2013). Self-assessment in the classroom. *The companion to language assessment*, 2, 712-729.
- Ozogul, G. & Sullivan, H. (2009) Student performance and attitudes under formative evaluation by teacher, self and peer evaluators. *Education Tech Research Dev* 57, 393–410. <https://doi.org/10.1007/s11423-007-9052-7>
- Panadero, E. & Brown, G. T. L. (2016). Teachers' reasons for using peer assessment: Positive experience predicts use. *European Journal of Psychology of Education*. <https://doi.org/10.1007/s10212-015-0282-5>
- Panadero, E., Jonsson, A., & Strijbos, J. W. (2016). Scaffolding self-regulated learning through self-assessment and peer assessment: Guidelines for classroom implementation. In *Assessment for learning: Meeting the challenge of implementation* (pp. 311-326). Springer International Publishing.
- Pla-Campas, G., Arumí-Prat, J., Senye-Mir, A. M., & Ramírez, E. (2016). Effect of using formative assessment techniques on students' grades. *Procedia-social and behavioral sciences*, 228, 190-195.
- Putri, N., & Aminatun, D. (2021). Using Facebook to practice writing skill: What do the students think?. *Journal of English Language Teaching and Learning*, 2(1), 45-50.
- Rahimi, M., & Zhang, L. J. (2018). Writing task complexity, students' motivational beliefs, anxiety and their writing production in English as a second language. *Reading and Writing*, 32(3), 761-786.
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin*, 138(2), 353–387. <https://doi.org/10.1037/a0026838>
- Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis.

- Psychological Bulletin*, 130(2), 261–288. <https://doi.org/10.1037/0033-2909.130.2.261>
- Ross, J. A. (2006). The reliability, validity, and utility of self-assessment. *Practical Assessment, Research, and Evaluation*, 11(1), 10.
- Sari, D. L., & Niswatin, C. (2022). The Design of E-Learning System to Support Academic Writing Skills for Engineering Students of Vocational Higher Education. In *Proceedings of the 1st Bandung English Language Teaching International Conference (BELTIC 2018) - Developing ELT in the 21st Century*, 547-555. <https://doi.org/10.5220/0008221400002284>
- Schildkamp, K., Van der Kleij, F. M., Heitink, M. C., Kippers, W. B., & Veldkamp, B. P. (2020). Formative assessment: A systematic review of critical teacher prerequisites for classroom practice. *International Journal of Educational Research*, 103, 101602.
- Spiller, D. (2011). Assessment Matters: Self-Assessment and Peer Assessment. *Teaching Development Wāhanga Whakapakari Ako Journal*, 2(1), 1–19.
- Spiller, D. (2012). Assessment matters: Self-assessment and peer assessment. *The University of Waikato*, 13, 2-18.
- Stancic M. (2021). Peer assessment as a learning and self-assessment tool: A look inside the black box. *Assessment and Evaluation in Higher Education*, 46, 852–864.
- Topping, K. J. (2009). Peer assessment. *Theory into practice*, 48(1), 20-27.
- Torrance, H. (2012). Formative assessment at the crossroads: Conformative, deformative and transformative assessment. *Oxford Review of Education*, 38, 323–342. <https://doi.org/10.1080/03054985.2012.689693>.
- Udechukwu, J. (2020). Effect of Self-Assessment And Peer-Assessment Techniques on the performance of undergraduate students in a basic statistics course. *International Journal of Innovative Mathematics, Statistics & Energy Policies*, 8(3):69-75.
- Ukoha, E., Atim, D. G., & Amuche, N. P. (2022). Effect of 5Es Constructivist Instructional Approach on Students' Interest in Summary Writing in Benue State, Nigeria. *International Journal Of Language Learning And Applied Linguistics*, 1(3), 10-18.
- Van der Kleij, F. M., Vermeulen, J. A., Schildkamp, K., & Eggen, T. J. H. M. (2015). Integrating data-based decision making, assessment for learning and diagnostic testing in formative assessment. *Assessment in Education: Principles, Policy & Practice*, 22, 324–343. <https://doi.org/10.1080/0969594X.2014.999024.V>.
- Wiliam, D. (2011). What is assessment for learning? *Studies in Educational Evaluation*, 37, 3–14. <https://doi.org/10.1016/j.stueduc.2011.03.001>
- Wu, H., Zheng, J., Li, S., & Guo, J. (2019). Does academic interest play a more important role in medical sciences than in other disciplines? A nationwide cross-sectional study in China. *BMC Medical Education*, 19(1), 1-8.
- Yan, Z., Chiu, M. M., & Ko, P. Y. (2020). Effects of self-assessment diaries on academic achievement, self-regulation, and motivation. *Assessment in Education: Principles, Policy & Practice*, 27(5), 562-583.
- Yan, Z., Lao, H., Panadero, E., Fernández-Castilla, B., Yang, L., & Yang, M. (2022). Effects of self-assessment and peer-assessment interventions on academic performance: A pairwise and network meta-analysis. *Educational Research Review*, 37, 100484. <https://doi.org/10.1016/j.edurev.2022.100484>
- Yan, Z., Wang, X., Boud, D., & Lao, H. (2021). The effect of self-assessment on academic performance and the role of explicitness: a meta-analysis. *Assessment & Evaluation in Higher Education*, 1-15.
- Yang, A. C., Chen, I. Y., Flanagan, B., & Ogata, H. (2022). How students' self-assessment behavior affects their online learning performance. *Computers and Education: Artificial Intelligence*, 3, 100058.