

RESEARCH ARTICLE

Impact of formative assessment in improving writing skills in English as a second language among selected senior high schools in Sulu

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ABSTRACT. This descriptive-correlational study examined the impact of formative assessment on English as a second language writing skills in public senior high schools in Sulu during the School Year 2023-2024 using 100 samples taken through non-probability sampling via purposive sampling. It used weighted mean, standard deviation, t-test for independent samples, One-way ANOVA, and Pearson's and found the following: 1) Of the 100 student-respondents, mostly male, 19–20 years old, enrolled in GAS strand, whose parents have elementary education and monthly incomes of 10,000 or less; 2) Formative assessment improved English writing skills on average; 3) Besides age, gender, strand, parent's educational attainment, and parent's average monthly income significantly moderate how senior high school students evaluate formative assessment's impact on English writing skills. The impact of formative assessment on English writing skills is perceived differently by student-respondents in different strands. ABM students perceive Writing Skill Development better, TVL students' perception Teacher Feedback and Guidance, and HUMMS students' perception Peer Interaction and Collaboration. Whereas, Student-respondents whose parent's average monthly income is within 10,000-15,000 are better perceivers of Writing Skill Development, Teacher Feedback & Guidance, and Peer Interaction & Collaboration; 4) Senior high school students in Sulu who perceived formative assessment as improving English writing skills as Agree or with High Extent are very similar; In ESL writing, this approach states that students learn from their own experiences, others, and their surroundings.

KEYWORDS: *Formative Assessment, Skills, Language, English*

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Introduction

The school's primary objective is to deliver exceptional learning experiences to students through Proficiency in writing is particularly difficult for Senior High School (SHS) English as a Second Language (ESL) learners due to language differences, cultural quirks, and personal learning styles (Leki, 2017). Writing proficiency is crucial not only in academic settings, but also in terms of its impact on communication, academic performance, and future career prospects. In the field of ESL instruction at the secondary school level, teachers face the challenge of improving writing abilities in order to effectively equip pupils for the academic and professional requirements they will

encounter. In the face of these difficulties, the significance of formative evaluation has arisen as a promising means for enhancement.

Formative assessment, which involves continuous and interactive evaluations throughout the instructional process, has been shown to be effective in many educational settings (Black & Wiliam, 2019). Although the importance of formative assessment on language abilities is acknowledged, there is a notable lack of information about its specific influence on ESL writing skills at the secondary school level. The lack of research in this field emphasizes the necessity of studying the specific implementation of formative assessment procedures to tackle the distinct difficulties encountered by SHS ESL learners (Gottlieb, 2018).

This study seeks to address this deficiency by investigating the impact of formative assessment procedures on the enhancement of writing proficiency in secondary school ESL learners. The research seeks to offer empirical evidence that can guide educators and educational governance authorities in implementing effective techniques to enhance writing skills within this particular school setting. In order to effectively cater to the varied requirements of ESL students in the SHS environment, educators need to possess the knowledge and skills to personalize formative assessment strategies specifically for the SHS level.

Hence, it is imperative to investigate the ways in which formative assessment improves writing proficiency in English as a Second Language (ESL), particularly for senior high school (SHS) students attending public institutions. It is crucial and necessary to understand how formative assessment procedures might improve writing skill in educational contexts that have linguistic variety, cultural subtleties, and resource restrictions.

The results of this research are expected to offer significant insights for educators, administrators, and policymakers. These insights will be founded on evidence and will provide recommendations that are specifically designed to address the unique needs and challenges of secondary school students in public schools. The researcher highlights the significance of formative assessment in this particular environment, which not only enhances the academic achievement of ESL learners but also emphasizes its essential role as a transformative tool in developing the language skills and future opportunities of SHS students in public schools.

Research Questions

1. What is the Impact of formative assessment in improving writing skills as a second language among public Senior High Schools in Sulu in the context of:
 - a. Writing Skills Development;
 - b. Teacher's Feedback and Guidance; and
 - c. Peer Interaction Collaboration?
2. Is there a significant difference in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to their demographic profile in terms of:
 - a. Age;
 - b. Gender;
 - c. Strand;
 - d. Parents' Educational Attainment; and
 - e. Parents' Average Monthly Income?
3. Is there a significant correlation among the sub-categories subsumed under the impact of formative assessment in improving writing skills in English as a second language among public Senior High Schools in Sulu?

Literature

Foreign Studies and Literature

The paper "Feedback in Formative Assessment" by Hattie, J., and Timperley, H. (2017) highlights the significance of feedback in the context of formative assessment. Within the field of English as a Second Language (ESL) writing skills, it highlights the need of constructive feedback in improving learning outcomes. The study recognizes the importance of feedback and establishes a fundamental understanding that goes beyond cultural and educational differences. It provides valuable insights that may be applied in various international contexts. This observation is consistent with the main argument, highlighting the crucial importance of feedback in enhancing English as a Second Language (ESL) writing skills on a global scale.

The influential study conducted by Hattie and Timperley on "Feedback in Formative Assessment" serves as a crucial cornerstone for the thesis titled "Impact of Formative Assessment in Enhancing Writing Proficiency in English as a Second Language in Secondary High Schools." The emphasis on the significance of feedback that transcends cultural and educational disparities aligns seamlessly with the primary objective of the thesis, which is to offer valuable perspectives applicable in diverse international contexts. The study suggests that providing effective feedback has the potential to significantly enhance learning results in English as a Second Language (ESL) instruction, which might be a game-changer. This explicitly reinforces the central argument of the thesis, which centers on the tangible results that arise from the application of formative assessment procedures. Additionally, the research demonstrates that these findings are applicable in global contexts. Essentially, Hattie and Timperley's study supports the argument that feedback plays a crucial role in enhancing ESL writing skills. This finding highlights the global significance and transformational impact of incorporating feedback as a key component of formative assessment in senior high schools.

Black and Wiliam's (2018) study, "Tailored Formative Assessment for Learners," offers valuable insights into the efficacy of personalized formative assessment. The study emphasizes the significance of customizing evaluation methods to cater to the distinct requirements of learners. This foreign perspective becomes particularly pertinent in the context of ESL education in senior high schools in Sulu. This programmed facilitates the development of customized approaches for ESL learners, ensuring that the study adheres to global standards and underscores the significance of modifying formative assessment to suit the unique circumstances of ESL writing abilities. Black and Wiliam's research on "Tailored Formative Assessment for Learners" offers significant findings that clearly align with the thesis, "The Influence of Formative Assessment on Enhancing Writing Proficiency in English as a Second Language in Secondary High Schools." This study makes a substantial contribution to our understanding of formative assessment by highlighting the efficacy of personalized approaches. Furthermore, it demonstrates the significance of employing a subtle and adaptable strategy to enhance English writing proficiency as a secondary language.

Sadler's study in 2018 examines the incorporation of formative assessment into wider educational initiatives, drawing on international perspectives to gain insights. This study examines the relationship between formative assessment and existing teaching techniques, providing a comprehensive view of how formative assessment might be integrated and improved on a worldwide scale. Gaining insight into the integration of formative assessment within larger educational frameworks can guide the study's strategy for implementation, considering the broader context of ESL education in global educational settings.

The study titled "Impact of Formative Assessment in Enhancing Writing Proficiency in English as a Second Language in SHS" is connected to Sadler's research on "Incorporation of

Formative Assessment into Wider Pedagogical Initiatives." This study provides crucial data that substantiates the premise. This research provides a valuable viewpoint on how to effectively include formative assessment into larger educational systems. The thesis expands its comprehension of how to effectively incorporate formative assessment procedures into educational environments by examining the worldwide viewpoint on this integration. Sadler's focus on integrating formative assessment into broader educational frameworks is especially pertinent for the study's implementation method, providing a perspective to negotiate the larger context of ESL education in foreign contexts. Given this information, the study acknowledges the significance of matching formative evaluation techniques with existing educational initiatives. This contributes to the primary objective of the thesis, which is to improve English as a Second Language (ESL) writing proficiency among senior high school students in Sulu.

Zimmerman's (2019) study on Models of Self-Regulated Learning provides an international viewpoint on how formative assessment impacts students' capacity to regulate their own learning. This enhances the theoretical foundation by expanding the comprehension of self-regulation in ESL environments. The inclusion of this external perspective provides the study with a more profound and universally applicable theoretical foundation. The text acknowledges the significance of formative evaluation in fostering students' autonomy and self-regulation in ESL writing tasks. This study examines the impact of formative assessment on students' capacity to self-regulate their learning from an international standpoint. The study enhances the comprehension of self-regulation in ESL environments, offering detailed insights that perfectly correspond with the purpose of the thesis. By including Zimmerman's viewpoint, the thesis obtains a broader and more universally relevant theoretical basis, recognizing the crucial importance of formative evaluation in promoting students' independence and self-control, particularly in English as a Second Language (ESL) writing assignments. The alignment of this thesis is essential as it seeks to not only improve writing skills but also empower SHS ESL learners to be in control of their own learning. Zimmerman's study supports the main objective of the thesis by highlighting the significance of formative assessment in fostering students' autonomy and self-directed learning. These aspects are crucial in the context of ESL education in senior high schools in Sulu.

Waring's Classroom Discourse and Formative Assessment (2017) examines the topics of classroom discourse and formative assessment from a global perspective. This international research adds to our understanding of the world by highlighting the impact of classroom communication on the success of formative assessment. The study examines various discourse patterns to investigate communication methods in ESL classes, recognizing the multicultural aspect of educational settings and aligning with the study's emphasis on ESL writing skills in different circumstances. Waring's research on "Classroom Discourse and Formative Assessment" offers an important global viewpoint that greatly influences the thesis, "Impact of Formative Assessment in Enhancing Writing Skills in English as a Second Language in SHS." This study provides valuable worldwide insights by highlighting the complex connection between classroom communication and the efficacy of formative assessment. The study's examination of various discourse patterns is especially pertinent to the thesis, which focuses on English as a Second Language (ESL) writing abilities in distinct settings, such as senior high schools in Sulu. Waring's observations provide guidance for studying communication tactics in ESL classes, recognizing the diverse cultural composition of educational settings.

This aligns perfectly with the study's goal of improving writing abilities within a context of language diversity and cultural nuances. The thesis recognizes the significance of classroom communication in influencing the results of formative assessments, utilizing Waring's broad

perspective. This offers a thorough viewpoint that is essential for customizing solutions to meet the needs of senior high school ESL students. Waring's study is important because it adds to the current research on using effective formative assessment in the complex setting of ESL instruction in various environments.

Local Studies and Literature

In a local study conducted by Leki in 2017, the Multidimensional Nature of ESL Writing Skills is explored, providing a nuanced perspective that highlights the complexity of ESL writing. This supports the thesis by recognizing the intricacy of writing skills that are unique to ESL learners in Senior High Schools in Sulu. The study offers a perspective that focuses on the specific context, taking into account the distinct characteristics of ESL writing skills in the Philippines. Leki's study on the "Multidimensional Nature of ESL Writing Skills" is a valuable local resource that perfectly complements the thesis, "Impact of Formative Assessment in Improving Writing Skills in English as a Second Language in SHS." Leki's research, grounded in the local context, presents a nuanced viewpoint by explicitly highlighting the multifaceted nature of ESL writing. This aspect perfectly complements the main objective of the thesis, as it recognizes the inherent intricacy of writing skills among ESL learners. In Leki's study, a focused examination is conducted on the challenges encountered by ESL learners in Senior High Schools in Sulu. The study highlights the distinct aspects of ESL writing skills within the Philippines, offering a localized perspective. By incorporating Leki's insights, the thesis gains a deeper understanding of the complexities involved in enhancing writing skills, customized to address the unique needs and difficulties faced by ESL learners in the Philippines. As a result, Leki's study is a crucial part of the theoretical framework, providing a focused perspective that adds depth and relevance to the investigation of effective formative assessment practices in Senior High School education in Sulu. Gottlieb's study on the effectiveness of formative assessment in linguistically diverse classrooms resonates with the local emphasis on ESL learners in Sulu. The study acknowledges the importance of linguistic diversity, which adds to the study's local relevance. The research in question is highly relevant to the educational landscape in the Philippines, as it focuses on meeting the unique needs of ESL students. The study provides valuable insights that can be directly applied within its specific context.

Gottlieb's study on the "Effectiveness in Diverse Classrooms" plays a crucial role in supporting the thesis, "Impact of Formative Assessment in Improving Writing Skills in English as a Second Language in SHS." It delves into the effectiveness of formative assessment in classrooms with diverse linguistic backgrounds. The correlation between Gottlieb's observations and the specific emphasis on ESL learners in Sulu enhances the study's significance within the Philippine setting. Gottlieb's recognition of the importance of linguistic diversity not only aligns with the multicultural nature of the Philippines but also strengthens the study's relevance to the local context.

In Brookhart's study, *Practical Implementation Strategies* (2018), the author provides valuable insights into the practical aspects of implementing formative assessment. The study offers a local perspective and offers practical strategies that can be applied in real-world settings. This study provides valuable insights into the integration of formative assessment practices into ESL writing instruction in Senior High Schools in Sulu. Through careful consideration of global standards, the study guarantees that the suggested approaches are not only grounded in theory but also feasible and relevant to the specific educational environment.

Methodology

This chapter provides an overview of the study, including the research design used for presentation, analysis, and interpretation. It also discusses the philosophical assumptions, the role of the researcher, the research participants, the data collection process, data analysis, and the trustworthiness of the study. Additionally, it addresses the ethical considerations involved in the research process.

1. Population and Sampling Design

The thesis examines the influence of formative assessment on enhancing writing proficiency in English as a Second Language (ESL) students in Senior High Schools. The study employs a descriptive-evaluative approach to record the present condition of formative assessment procedures and assess their efficacy in improving English as a Second Language (ESL) writing proficiency. The study will utilize pre- and post-assessment scores and qualitative input to quantify statistical enhancements and gain understanding of the strengths and difficulties of the deployed formative assessment approaches. A total of 100 respondents from different Senior High Schools in Sulu are used in this study. A non-probability sampling design through purposive sampling method will be employed in this study. A total of at least one hundred (100) samples will be purposively chosen based on the availability of students among senior high schools in Sulu. The use of purposive sampling in this study will ensure the proper representation of gender, age, parent's educational attainment, and parent's average monthly income.

2. Research Instruments

Use a survey questionnaire to measure formative assessment's impact on writing abilities. This exam measures student writing skills consistently and objectively before and after formative assessment procedures are implemented. These tests are standardized, allowing for measurable evaluation of writing ability progress across the study. The research uses statistical analyses of standardized test results to find significant changes over time to demonstrate the impact of formative assessment on writing skills in Senior High School ESL courses. Surveys supplement the quantitative approach and provide useful insights into students' subjective experiences with formative assessment procedures. The surveys aim to capture nuanced perspectives and qualitative components of formative assessment's impact on writing skill development, instructor feedback and assistance, and peer interaction collaboration. The organized surveys allow the research team to quantify replies and undertake statistical analyses to identify trends and patterns. This strategy enhances the quantitative findings and our understanding of how formative evaluation affects ESL students' writing skills.

3. Data Gathering Procedure

This study will use a questionnaire to measure baseline writing skills in Senior High Schools in Sulu. Formative assessment strategies will be implemented over a specified period, including ongoing assessments, feedback sessions, and collaborative writing activities. Surveys will be conducted to gather insights from teachers and students on the impact of formative assessment on writing skills development. The study aims to capture quantitative insights into the linguistic diversity, cultural nuances, and educational context specific to SHS in Sulu.

4. Data Analysis Process

This study examines how formative assessment improves writing skills in Sulu public senior high schools using descriptive and inferential statistics. Writing skills, teacher comments, and peer interaction will be measured using mean and standard deviation. To analyze gender, age, and income disparities, the study will use t-tests, ANOVAs, and Pearson Product Moment Correlation Coefficients. Based on a modified 4-point Likert scale, rating scale interval on the impact of

formative assessment on improving second language writing skills in Sulu public senior high schools: 3.50-4.00 (Strongly Agree/ Very High), 2.50-3.49 (Agree/ High), 1.50-2.49 (Disagree/ Low), 1.00-1.49 (Strongly Disagree/ Very Low).

Results

Question 1. What is the impact of formative assessment in improving writing skills as a second language among public Senior High Schools in Sulu in the context of: 2.1 Writing Skill Development; 2.2 Teacher Feedback and Guidance; and 2.3 Peer Interaction Collaboration?

Table 1.1 Extent of impact of formative assessment in improving writing skills as a second language among public senior high schools in Sulu in the context of Writing Skill Development

	Statement	Mean	S.D.	Rating
1	My ability to structure English sentences has improved due to formative assessments.	3.0900	.80522	Agree
2	Formative assessments have helped me understand English grammar and syntax better.	3.1400	.77876	Agree
3	I can express my thoughts more clearly in written English after participating in formative assessments.	3.0600	.72223	Agree
4	My vocabulary has expanded through formative assessment activities.	2.9900	.73161	Agree
5	Formative assessments have enhanced my ability to organize ideas in English essays.	3.0900	.76667	Agree
6	I am more confident in my English writing skills after participating in formative assessments.	3.1100	.70918	Agree
7	My understanding of English punctuation and capitalization has improved through formative assessments.	3.1400	.72502	Agree
8	Formative assessments have helped me identify and correct my writing mistakes.	3.0700	.70000	Agree
9	I can write more cohesively in English thanks to formative assessment feedback.	3.2800	.73964	Agree
10	Formative assessments have motivated me to practice English writing regularly.	3.3300	.63652	Agree
Total Weighted Mean		3.1300	.51198	Agree

Legend: (4) 3.50 – 4.49=Strongly Agree (High); (3) 2.50 – 3.49= Agree (Moderate); (2) 1.50 – 2.49=Disagree (Low); (1) 1.00 – 1.49=Strongly Disagree (Very Low)

Formative assessment improves second-language writing skills in Sulu public senior high schools, as shown in Table 1.1. Students' assessment had a weighted mean score of 3.1300 and a standard deviation of .51198, indicating Agree or High Extent. This shows that student-respondents believe they have improved in organizational structure, grammar, vocabulary, and writing conventions. Through formative assessments, they have demonstrated good applicability across varied writing tasks.

Students rated the following items as Agree or High: “My ability to structure English sentences has improved due to formative assessments”, “Formative assessments have helped me understand English grammar and syntax better”, “I can express my thoughts more clearly in written English after participating in formative assessments”, and “My vocabulary has expanded through formative assessment activities.

Table 1.2 Extent of impact of formative assessment in improving writing skills as a second language among public senior high schools in Sulu in the context of Teacher Feedback and Guidance

	Methods of Teaching	Mean	S.D.	Rating
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1	My teacher provides constructive feedback on my English writing during formative assessments.	3.3000	.70353	Agree
2	Formative assessments have allowed me to have one-on-one discussions with my teacher about my writing.	3.2700	.76350	Agree
3	My teacher's feedback on my English writing is specific and helpful.	3.4100	.60461	Agree
4	I receive guidance on how to improve my English writing skills from my teacher during formative assessments.	3.3100	.72048	Agree
5	Formative assessments help me understand my strengths and weaknesses in English writing.	3.0600	.82658	Agree
6	My teacher encourages me to set writing goals and track my progress.	2.9600	.77746	Agree
7	I have the opportunity to ask questions and seek clarification from my teacher during formative assessments.	2.9600	.72363	Agree
8	My teacher suggests resources or strategies to improve my English writing.	3.0900	.75338	Agree
9	I feel comfortable discussing my writing challenges with my teacher during formative assessments.	3.1300	.70575	Agree
	My teacher's feedback motivates me to work on my English writing skills.	3.1900	.77453	Agree
Total Weighted Mean		3.1680	.46404	Agree

Legend: (4) 3.50 – 4.49=Strongly Agree (High); (3) 2.50 – 3.49= Agree (Moderate); (2) 1.50 – 2.49=Disagree (Low); (1) 1.00 – 1.49=Strongly Disagree (Very Low)

Table 1.2 shows how formative assessment improves second-language writing skills in Sulu public senior high schools with Teacher Feedback and Guidance. Students' assessment had a weighted mean score of 3.1680 and a standard deviation of .46404, indicating Agree or High Extent. This study found that student-respondents agreed that their English teachers provide quality and effective evaluative inputs, including timely and constructive feedback on writing assignments, targeted guidance on areas for improvement, and formative assessment practices that support students' writing skill development.

Student-respondents rated the following items as Agree or High: “My teacher provides constructive feedback on my English writing during formative assessments”, “Formative assessments have allowed me to have one-on-one discussions with my teacher about my writing”, “My teacher's feedback on my English writing is specific and helpful”, and “I receive guidance on how to improve my English writing skills from my teacher”.

Table 1.3 Extent of impact of formative assessment in improving writing skills as a second language among public senior high schools in Sulu in the context of Peer Interaction and Collaboration

	Students' Outcome	Mean	S.D.	Rating
1	Formative assessments involve peer review activities that help me improve my English writing.	3.0200	.73828	Agree
2	Peer feedback during formative assessments offers different perspectives on my writing.	3.0100	.67412	Agree
3	Discussing my writing with peers helps me identify areas for improvement.	3.1500	.67232	Agree
4	I learn from my classmates' writing strengths and weaknesses during formative assessments.	2.9900	.74529	Agree
5	Peer interactions during formative assessments enhance my English language skills.	3.0500	.74366	Agree
6	Collaborating with peers on writing assignments is beneficial for my learning.	3.0400	.70953	Agree
7	I receive constructive criticism from my peers during formative assessments.	3.1000	.75879	Agree

8	Peer review activities encourage me to revise and refine my English writing.	3.0100	.71767	Agree
9	Formative assessments promote a sense of community among my classmates.	2.9700	.67353	Agree
10	I enjoy working with my peers to enhance our English writing skills.	3.0600	.82658	Agree
Total Weighted Mean		3.0400	.56693	Agree

Legend: (4) 3.50 – 4.49=Strongly Agree (High); (3) 2.50 – 3.49= Agree (Moderate); (2) 1.50 – 2.49=Disagree (Low); (1) 1.00 – 1.49=Strongly Disagree (Very Low)

Table 1.3 indicates how formative evaluation improves second-language writing skills in Sulu public senior high schools in Peer Interaction and Collaboration. Students' assessment had a weighted mean score of 3.0400 and a standard deviation of .56693, indicating Agree or High Extent. This study's student-respondents agreed that they actively participate in group discussions, joint writing exercises, and cooperative learning initiatives to improve ESL writing skills through mutual support and shared insights.

In particular, student-respondents rated the following items as Agree or High: “Formative assessments involve peer review activities that help me improve my English writing”, “Peer feedback during formative assessments offers different perspectives on my writing”, “Discussing my writing with peers helps me identify areas for improvement”, and “I learn from my classmates' writing strengths and weaknesses during formative as.

Question 2. Is there a significant difference in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to their demographic profile in terms of: 3.1 Gender; 3.2 Age; 3.3 Strand; 3.4 Parent's Educational Attainment; and 3.5 Parent's Average Monthly Income?

Table 2.1. Differences in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to their demographic profile in terms of gender

Sources of Variation	Grouping	Mean	S.D.	Mean Difference	t	Sig.	Description
Writing Skill Development	Male	3.2340	.42424	.22120*	2.198	.030	Significant
	Female	3.0128	.57808				
Teacher Feedback and Guidance	Male	3.2774	.35281	.23268*	2.573	.012	Significant
	Female	3.0447	.54166				
Peer Interaction Collaboration	Male	3.1604	.51041	.25612*	2.303	.023	Significant
	Female	2.9043	.60143				

*Significant alpha .05

Formative assessment's impact on English-as-a-second-language writing skills in Sulu's public senior high schools by gender is seen in Table 2.1. This table shows that mean differences of categories subsumed under formative assessment's impact on English writing skills are significant at alpha.05. This suggests that male and female student-respondents view formative evaluation differently in improving English writing skills. This suggests that male students may perceive formative testing as developing English writing skills more than female students, or vice versa. Thus, variable gender affects how student-respondents evaluate formative assessment's impact on English writing skills.

Table 2.2 Differences in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to their demographic profile in terms of age

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Writing Skill Development	Between Groups	1.891	2	.945	3.811*	.026	Significant
	Within Groups	24.059	97	.248			
	Total	25.950	99				
Teacher Feedback and Guidance	Between Groups	.119	2	.059	.271	.763	Not Significant
	Within Groups	21.199	97	.219			
	Total	21.318	99				
Peer Interaction Collaboration	Between Groups	1.390	2	.695	2.215	.115	Not Significant
	Within Groups	30.430	97	.314			
	Total	31.820	99				

*Significant at alpha 0.05

Table 3.2 displays the variations in the efficacy of the outcome-based teaching method among the faculty members of Sulu State College. The data is organized based on their demographic characteristics, specifically their gender. The table indicates that, with the exception of "Methods of Teaching," the mean differences of all other sub-categories within the degree of effectiveness of the outcome-based teaching strategy among Sulu State College instructors are not statistically significant at an alpha level of .05. Male and female teachers have similar perceptions regarding the efficiency of the outcome-based education strategy among the faculty at Sulu State College. This finding suggests that being a male teacher-respondent does not necessarily provide him an advantage in judging the success of the outcome-based teaching strategy among Sulu State College professors compared to his female counterpart, or vice versa. Therefore, it can be concluded that the variable of gender does not have a major impact on how employee-respondents evaluate the success of the outcome-based teaching technique among the professors of Sulu State College.

Table 2.3 Differences in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to their demographic profile in terms of strand

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Writing Skill Development	Between Groups	4.127	4	1.032	4.606*	.002	Significant
	Within Groups	21.058	94	.224			
	Total	25.185	98				
Teacher Feedback and Guidance	Between Groups	4.418	4	1.105	6.294*	.000	Significant
	Within Groups	16.496	94	.175			
	Total	20.914	98				
Peer Interaction Collaboration	Between Groups	7.689	4	1.922	7.555*	.000	Significant
	Within Groups	23.917	94	.254			
	Total	31.606	98				

*Significant alpha .05

Table 2.3 compares the impact of formative assessment on English-as-a-second-language writing skills in Sulu public senior high schools by demographic profile and strand. This table shows that the F-ratios and P-values of all subcategories under the impact of formative assessment on English writing skills are significant at alpha.05. This means that student-respondents from different academic strands have diverse views on how formative evaluation improves English writing skills. This suggests that STEM students may see formative evaluation as increasing English writing skills more than GAS, ABM, HUMSS, and TVL students, or vice versa. However, variable strand mediates how student-respondents evaluate formative assessment's impact on senior high students' English writing skills.

Table 2.3.1 Post Hoc Analysis: Differences in the levels of mean in areas subsumed under the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to strand

Dependent Variables	(I) Grouping by Strand	(J) Grouping by Strand	Mean Difference (I-J)	Std. Error	Sig.
Writing Skill Development	STEM	GAS	.17675	.15673	.791
		ABM	.51310*	.17128	.028
		HUMMS	.40833	.25194	.488
		TVL	-.04384	.16855	.999
Teacher Feedback and Guidance	GAS	STEM	-.13158	.13872	.877
		ABM	.26604	.11391	.143
		HUMMS	-.02158	.19929	1.000
		TVL	-.35549*	.11067	.015
Peer Interaction Collaboration	STEM	GAS	.05000	.16703	.998
		ABM	.47381	.18254	.079
		HUMMS	.81000*	.26850	.027
		TVL	-.19783	.17963	.805

* The mean difference is significant at the 0.05 level.

Table 2.4 displays the variations in the efficacy of the outcome-based teaching method among the faculty members of Sulu State College. The data is categorized based on their demographic profile, namely their educational achievements. The chart indicates that, with the exception of "Teaching Practice," the F-ratios and P-values for all other sub-categories within the effectiveness of the outcome-based teaching strategy among Sulu State College instructors are statistically significant at an alpha level of .05. Despite variations in educational attainment among teacher-respondents, their judgments of the efficiency of the outcome-based teaching style among Sulu State College instructors differ. This finding suggests that teachers who hold a doctorate degree are likely to have an advantage in evaluating the effectiveness of the outcome-based teaching approach among the faculty at Sulu State College compared to those with a bachelor's degree, master's units, master's degree, or doctoral units. However, it is accurate to state that the varying levels of education achieved by individuals have a substantial influence on how teacher-respondents evaluate the success of the outcome-based teaching technique among faculty members at Sulu State College.

Table 2.4.1 Post Hoc Analysis: Differences in the level of effectiveness of outcome-based teaching approach among Sulu State College faculty when data are grouped according to their demographic profile in terms of educational attainment

Dependent Variables	(I) Grouping by Civil Status	(J) Grouping by Civil Status	Mean Difference (I-J)	Std. Error	Sig.
Methods of Teaching	Master's degree	Bachelor's degree	.05079	.16866	.998
		With master's units	-.06921	.09238	.944
		With doctoral units	.07937	.09737	.925
		Doctorate degree	.07937	.09737	.925
Students' Outcome	Master's degree	Bachelor's degree	.08371	.15115	.981
		With master's units	-.07629	.08279	.888
		With doctoral units	-.00105	.08727	1.000
		Doctorate degree	-.29629*	.10269	.038

* The mean difference is significant at the 0.05 level.

A Post Hoc Analysis using Tukey Test was performed to determine which groups classified by academic strand had different levels of mean in areas subsumed under the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu. Table 3.3.1 shows that lower group mean minus higher group mean determines

the difference in Writing Skill Development, Teacher Feedback and Guidance, and Peer Interaction Collaboration means.

On Writing Skill Development: The ABM group had a mean difference of .51310* with Standard Error of .17128 and p-value of .028 which is significant at $\alpha = .05$ above STEM. Under this subcategory, only ABM strand students should have a better understanding of how formative assessment improves writing skills in English as a second language in public senior high schools in Sulu.

On Teacher Feedback and Guidance: TVL students had a mean difference of -.35549* with Standard Error of .11067 and p-value of .015 compared to GAS students. In this subcategory, TVL strand students are supposed to have the best perception of formative assessment's impact on English as a second language writing skills in public senior high schools in Sulu in terms of Teacher Feedback and Guidance. HUMMS students had a mean difference of .81000* with Standard Error of .26850 and p-value of .027, which is significant at $\alpha = .05$ compared to STEM students. Under this subcategory, HUMMS strand students are supposed to have the best perception of formative assessment's impact on improving writing skills in English as a second language in public senior high schools in Sulu in terms of peer interaction and collaboration.

Table 2.4 Differences in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to parent's educational attainment

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Writing Skill Development	Between Groups	4.399	4	1.100	4.848*	.001	Significant
	Within Groups	21.551	95	.227			
	Total	25.950	99				
Teacher Feedback and Guidance	Between Groups	.485	4	.121	.553	.697	Not Significant
	Within Groups	20.833	95	.219			
	Total	21.318	99				
Peer Interaction Collaboration	Between Groups	7.004	4	1.751	6.704*	.000	Significant
	Within Groups	24.816	95	.261			
	Total	31.820	99				

*Significant $\alpha .05$

Table 2.4 compares the influence of formative assessment on English-as-a-second-language writing skills in Sulu public senior high schools by parent education level. This table shows that, except for Teacher Feedback and Guidance, all other sub-categories under the impact of formative assessment on English writing skills are significant at $\alpha .05$. Even though student-respondents' parents' educational levels vary, they differ in their assessments of formative assessment's impact on English-as-a-second-language writing skills in Sulu's public senior high schools. This suggests that a student whose parents have master's/doctorate degrees may be better able to understand how formative assessment improves English as a second language writing skills in public senior high schools in Sulu than those whose parents have elementary, secondary, bachelor's degrees and no formal education. Thus, student-respondents' assessments of formative assessment's impact on English writing skills are mediated by varying parent education.

Table 2.5 Differences in the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to their demographic profile in terms of parent's average monthly income

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Writing Skill Development	Between Groups	5.037	3	1.679	7.708*	.000	Significant

	Within Groups	20.913	96	.218			
	Total	25.950	99				
Teacher Feedback and Guidance	Between Groups	1.658	3	.553	2.698*	.050	Significant
	Within Groups	19.660	96	.205			
	Total	21.318	99				
Peer Interaction Collaboration	Between Groups	9.169	3	3.056	12.954*	.000	Significant
	Within Groups	22.651	96	.236			
	Total	31.820	99				

*Significant alpha .05

Table 2.5 shows how formative assessment affects English-as-a-second-language writing skills in Sulu public senior high schools by parent average monthly income. This table shows that the F-ratios and P-values of all subcategories under the impact of formative assessment on English writing skills are significant at alpha.05. Despite differences in their parents' average monthly income, student-respondents differ in their assessments of formative assessment's impact on English writing skills. This suggests that a student whose parents earn 25,001 or more may be better able to see how formative assessment improves English writing skills than those whose parents earn 10,000 or less, 10,001–15,000, 15,001–20,000, or 20,001–25,000. We can conclude that variable parent's average monthly income mediates how student-respondents view formative assessment's impact on English writing skills.

Table 2.5.1 Post Hoc Analysis: Differences in the levels of mean in areas subsumed under the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu when data are classified according to parent's average monthly income

Dependent Variables	(I) Grouping by Civil Status	(J) Grouping by Civil Status	Mean Difference (I-J)	Std. Error	Sig.
Writing Skill Development	10,000 & below	10,001-15,000	.49212*	.10939	.000
		15,001-20,000	.52612	.24023	.133
		20,001-25,000	.05112	.24023	.997
Teacher Feedback and Guidance	10,000 & below	10,001-15,000	.28072*	.10606	.046
		15,001-20,000	.30672	.23293	.555
		20,001-25,000	.15672	.23293	.907
Peer Interaction Collaboration	10,000 & below	10,001-15,000	.68078*	.11384	.000
		15,001-20,000	.61978	.25002	.070
		20,001-25,000	.24478	.25002	.762

* The mean difference is significant at the 0.05 level

A Post Hoc Analysis using Tukey Test was performed to determine which groups classified by parent's average monthly income had different levels of mean in areas subsumed under the impact of formative assessment in improving English as a second language writing skills in Sulu public senior high schools. Table 3.5.1 shows that lower group mean minus higher group mean determines the difference in Writing Skill Development, Teacher Feedback and Guidance, and Peer Interaction Collaboration means.

On Writing Skill Development: The group of student-respondents whose parents' average monthly income was 10,001-15,000 had a mean difference of .49212* with Standard Error of .10939 and p-value of .000, which is significant at alpha=.05. Thus, no other group of student-respondents should have a better understanding of how formative assessment improves writing skills in English as a second language in public senior high schools in Sulu in terms of Writing Skill Development than those whose parents earn 10,000-15,000.

On Teacher Feedback and Guidance: The group of student-respondents whose parents' average monthly income was 10,001-15,000 had a mean difference of .28072* with Standard Error of .10606 and p-value of .046 which is significant at $\alpha=.05$. Thus, no other group of student-respondents should have a better understanding of the impact of formative assessment in improving writing skills in English as a second language in public senior high schools in Sulu in terms of Teacher Feedback and Guidance than those whose parents earn 10,000-15,000. Collaboration and peer interaction: The group of student-respondents whose parents' average monthly income was 10,001-15,000 had a mean difference of .68078* with Standard Error of .11384 and p-value of .000, which is significant at $\alpha=.05$. In terms of Peer Interaction and Collaboration, no other group of student-respondents should have a better understanding of the impact of formative assessment in improving writing skills in English as a second language among public senior high schools in Sulu than those whose parents earn 10,000-15,000.

Question 3. Is there a significant correlation among the sub-categories subsumed under the impact of formative assessment in improving writing skills in English as a second language among public Senior High Schools in Sulu?

Table 3.0 Correlation among the sub-categories subsumed under the impact of formative assessment in improving writing skills in English as a second language among public Senior High Schools in Sulu

Variables		Pearson <i>r</i>	Sig.	N	Description
Dependent	Independent				
Writing Skill Development	Teacher Feedback and Guidance	.827**	.000	100	Very High
	Peer Interaction Collaboration	.903**	.000	100	Nearly Perfect
Teacher Feedback and Guidance	Peer Interaction Collaboration	.786**	.000	100	Very High

*Correlation Coefficient is significant at $\alpha .05$

Correlation Coefficient Scales Adopted from Hopkins, Will (2002):

0.0-0.1=Nearly Zero; 0.1-0.30=Low; .3-0.5 0=Moderate; .5-0.7-0=High; .7-0.9= Very High; 0.9-1=Nearly Perfect

Table 4 shows a significant correlation between formative assessment and improving writing skills in English as a second language among public Senior High Schools in Sulu. The results show a very high positive correlation between writing skill development and teacher feedback and guidance, a near perfect positive correlation between writing skills development and peer interaction and collaboration, and a very high positive correlation between teacher feedback and guidance and peer interaction and collaboration.

Conclusion

The study demonstrates that the faculty of Sulu State College is adequately diversified in terms of age, gender, civil status, educational achievement, and duration of service. They are typically successful in implementing outcome-based teaching methods. Nevertheless, factors such as age, gender, and civil status do not play a substantial role in influencing teachers' evaluation of the effectiveness of this strategy. The study provides evidence for the effectiveness of the Hexa-C Metamodel, which incorporates current theories into e-learning systems. It focuses on cognitive learning and facilitates genuine comprehension and the development of internal knowledge structures.

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