

Article

***The analysis of assessment in english language exam
(A Case Study of High-School Students in Capital city)***

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Abstract

Assessment of exam performance plays a crucial role not only in identifying learners' strengths and weaknesses but also in planning targeted instructional strategies in an English as a Foreign Language (EFL) learning environment. This study analyzes the results of an English language examination taken by upper secondary school students in the capital city, based on scores for each language skill. A total of 456 students participated in the study. The exam results were analyzed using statistical measures such as mean, median, interquartile range (IQR), and distribution was illustrated through boxplots. Five core language skills were assessed: listening, grammar, vocabulary, reading, and writing.

The findings reveal noticeable differences among the skills. Writing demonstrated the highest average performance, whereas vocabulary and listening showed the lowest results. In addition, the distribution analysis indicated a wide variation in students' proficiency levels. These results suggest that learners' language abilities vary significantly. They also imply that insufficient attention may be given to vocabulary and listening skills in English classes at secondary schools. Therefore, it is necessary to improve teaching methodologies with a stronger focus on developing vocabulary and listening skills.

Keywords: assessment, English as a Foreign Language, language skills, vocabulary, high-school, students



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Сурагчдын Англи хэлний шалгалтын үнэлгээнд хийсэн дүн шинжилгээ (Нийслэлийн ЕБС-ийн ахлах сургуулийн сурагчдын жишээн дээр)

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^{1,2,3}Гадаад хэл, агаарын тээврийн үйлчилгээний тэнхим, Хүмүүнлэгийн сургууль, Отгонтэнгэр Их
Сургууль, Улаанбаатар хот, Монгол улс

Хураангуй

Шалгалтын үнэлгээ нь суралцагчдын давуу болон сул талыг тодорхойлохын зэрэгцээ англи хэлийг гадаад хэл (EFL) болгон сурах орчинд зорилтот сургалтын арга хэмжээг оновчтой төлөвлөхөд чухал ач холбогдолтой. Энэхүү судалгаа нь нийслэлийн ерөнхий боловсролын сургуулийн ахлах ангийн сурагчдаас авсан англи хэлний шалгалтын үнэлгээний үр дүнг хэлний чадвар тус бүрийн оноонд тулгуурлан задлан шинжилсэн болно. Судалгаанд нийт 456 сурагч хамрагдсан бөгөөд цуглуулсан өгөгдлийг тодорхойлох статистикийн аргууд болох дундаж, медиан, кватил хоорондын зай (IQR), мөн хайрцган диаграмм (boxplot)-ын тусламжтайгаар боловсруулж, тархалтын онцлогийг тодорхойлсон.

Үнэлгээгээр хэлний үндсэн таван чадварыг хамруулсан бөгөөд үүнд сонсох, дүрэм, үгийн сан, унших, бичих чадварууд багтсан. Судалгааны үр дүнгээс харахад чадваруудын хооронд мэдэгдэхүйц ялгаа ажиглагдсан. Тодруулбал, бичих чадвар харьцангуй өндөр дундаж үзүүлэлттэй байсан бол үгийн сан болон сонсох чадварууд хамгийн сул үзүүлэлттэй байв. Түүнчлэн тархалтын шинжилгээгээр сурагчдын гүйцэтгэлийн ялгаа их, түвшний зөрүү өргөн хүрээтэй байгааг илтгэсэн нь сургалтын үр нөлөө жигд бус байгааг харуулж байна. Эдгээр үр дүн нь суралцагчдын хэлний хөгжилд тэнцвэргүй байдал байгааг илтгэж байгаа бөгөөд ерөнхий боловсролын сургуулиудад англи хэлний сургалтад үгийн сан болон сонсох чадварыг хангалттай хөгжүүлэхэд анхаарал дутмаг байж болзошгүйг харуулж байна. Иймээс цаашид үгийн санг системтэйгээр баяжуулах, сонсох чадварыг хөгжүүлэхэд чиглэсэн сургалтын арга зүй, хөтөлбөрийг боловсронгуй болгох шаардлагатай гэж үзэж байна.

Түлхүүр үгс: үнэлгээ, англи хэл, хэлний чадвар, үгийн сан, ЕБС, сурагчид

Literature Review

Assessment has been widely recognized as an essential component of formative assessment in language education, as it provides detailed insights into learners' existing knowledge and skill gaps prior to instruction. Alderson (2005) argues that diagnostic testing plays a critical role in identifying specific language difficulties by offering fine-grained feedback on individual language components such as grammar, vocabulary, reading, writing, and listening. From this perspective, diagnostic

assessment serves not merely as a measurement tool but as a foundation for informed pedagogical decision-making.

Similarly, *Brown (2004)* emphasizes that diagnostic assessment enables teachers to identify learners' strengths and weaknesses at an early stage and to design targeted instructional interventions accordingly. Unlike summative assessment, which primarily focuses on evaluating learning outcomes, diagnostic assessment is inherently formative in nature and supports continuous learning and improvement. When effectively implemented, diagnostic assessment contributes to differentiated instruction and learner-centered pedagogy by addressing individual learning needs.

In the context of English as a Foreign Language (EFL), diagnostic assessment is particularly important in non-English-speaking countries, where learners often experience uneven development across language skills due to limited exposure to authentic English input. Research conducted in various Asian EFL contexts suggests that students frequently demonstrate stronger receptive skills, such as reading and listening, than productive skills, including writing and speaking (*Nguyen, 2017; Lee, 2019*). This imbalance is often attributed to exam-oriented instruction, grammar-translation approaches, and limited opportunities for communicative language use in classroom settings.

Furthermore, previous studies highlight that vocabulary knowledge plays a central role in overall language proficiency, as it underpins both receptive and productive skills. *Nation (2001)* emphasizes that insufficient vocabulary size can significantly hinder learners' reading comprehension, listening ability, and written expression. Despite its importance, vocabulary development is often underemphasized in EFL classrooms, where instructional time is predominantly allocated to grammar instruction and test preparation.

Although diagnostic assessment has been extensively examined in international EFL research, studies focusing on its application in Mongolian secondary education remain scarce. Existing research in Mongolia has largely concentrated on summative examinations and national assessment systems, with limited attention given to classroom-based diagnostic assessment and its pedagogical implications. As a result, there is a notable gap in understanding how diagnostic assessment can be systematically used to support English language teaching and learning at the high-school level in Mongolia.

This study seeks to address this gap by providing empirical evidence on Mongolian high-school students' English language proficiency through diagnostic testing. By analyzing students' performance across key language skills, the study aims to contribute to the existing literature on EFL assessment and to offer practical insights into how diagnostic assessment can inform curriculum

development, instructional planning, and targeted pedagogical intervention in the Mongolian educational context.

Methodology and Data Collections

This study adopted a quantitative research design with descriptive and analytical approaches to examine the role and outcomes of diagnostic assessment in English language learning among Mongolian high-school students. The methodology was designed to identify students' strengths and weaknesses across key language skills and to evaluate how diagnostic assessment data can inform instructional planning.

A case study approach was employed, focusing on a selected group of high-school students in Mongolia. This approach allowed for an in-depth analysis of learners' English proficiency levels within a real educational context. Quantitative data were collected through standardized diagnostic tests, and the results were statistically analyzed to identify patterns and performance gaps.

The study focused on five core components of English language proficiency: listening, grammar, vocabulary, reading, and writing. Each component was assessed separately to ensure a detailed understanding of learners' linguistic competence. Descriptive statistics, including mean scores, percentages, and score distributions, were used to analyze the data.

Ethical considerations were observed throughout the research process. Participation was voluntary, and students' identities were kept anonymous. The collected data were used solely for academic purposes.

The participants of this study were 456 students from public high schools in Ulaanbaatar, Mongolia. The students were enrolled in grades 10 to 12 and had studied English for approximately 5–7 years, from grade 6 to grade 12. The participants were selected through random sampling to ensure representation of different proficiency levels. A diagnostic assessment test was used as the main research instrument. The test functioned as a pre-assessment designed to evaluate students' existing English language skills before instruction.

The collected data were entered into a spreadsheet and analyzed using descriptive statistical methods. Individual and overall scores were calculated to identify proficiency levels and common areas of difficulty. The results were then categorized according to language skills to determine which areas required pedagogical intervention.

The analysis of diagnostic assessment results provided empirical evidence of students' English language strengths and weaknesses, serving as a foundation for targeted instructional planning and remedial support.

Definitions and Purposes of Assessment

Assessment is a central element of the teaching and learning process and plays a particularly significant role in English language education. *Brown (2004)* defines assessment as an ongoing process of collecting information about learners' performance in order to make informed decisions about teaching and learning. Similarly, *Bachman and Palmer (1996)* describe language assessment as the systematic measurement of language ability, designed to provide meaningful information about learners' communicative competence.

In educational contexts, assessment serves a variety of purposes depending on its function and implementation. Traditionally, assessment has been associated with summative purposes, such as evaluating learners' achievement at the end of a course or determining grades and certification (*Brown, 2004*). However, modern language pedagogy emphasizes assessment as a tool for learning, highlighting the importance of formative and diagnostic assessment in supporting learner development (*Black & Wiliam, 1998*).

Diagnostic assessment is specifically designed to identify learners' existing knowledge, strengths, and weaknesses prior to instruction. According to *Alderson (2005)*, diagnostic assessment aims to provide detailed information about learners' language difficulties so that instruction can be adapted to address specific needs. Unlike summative assessment, diagnostic assessment is not intended to judge achievement, but rather to inform teachers and learners about areas requiring improvement.

In the field of English language teaching, diagnostic assessment typically focuses on discrete and integrated language skills, including listening, grammar, vocabulary, reading, and writing. *Bachman and Palmer (1996)* emphasize that effective language assessment should be purposeful, reliable, and useful, ensuring that assessment results can be applied meaningfully to instructional planning. From this perspective, diagnostic assessment contributes to more effective curriculum design and differentiated instruction.

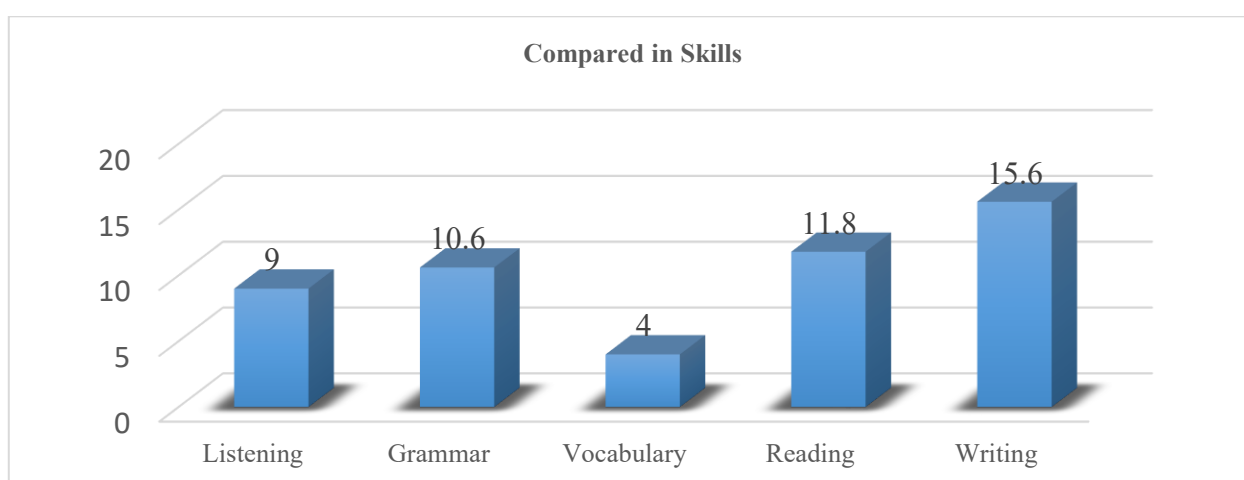
Furthermore, assessment plays an important role in promoting learner awareness and motivation. When learners receive clear feedback based on diagnostic assessment results, they become more conscious of their language proficiency and learning gaps, which can encourage self-regulated learning (*Brown, 2004*). This learner-centered view aligns with contemporary approaches to language education, where assessment is integrated into the learning process rather than treated as a separate evaluative activity.

In summary, assessment in English language education serves both evaluative and developmental purposes. Grounded in theoretical perspectives proposed by *Brown (2004)* and *Bachman and Palmer (1996)*, this study views diagnostic assessment as a crucial tool for identifying Mongolian high-school students' English language proficiency levels and for enhancing instructional effectiveness.

Results

The results of the diagnostic assessment revealed noticeable differences in students' performance across the five assessed language skills. Overall, students demonstrated relatively stronger performance in writing and reading, while vocabulary and grammar emerged as the weakest areas. Listening skills showed moderate performance, suggesting limited exposure to authentic spoken English. These findings indicate that Mongolian high-school students may rely heavily on textbook-based learning and memorization, which supports basic reading comprehension and exam-oriented writing tasks but does not sufficiently develop lexical competence and communicative language use. The low performance in vocabulary suggests a limited lexical range, which may negatively affect students' overall language proficiency. Furthermore, the results highlight potential limitations in the current English curriculum and teaching methods. The strong emphasis on exam preparation and grammar-translation approaches may restrict opportunities for communicative practice and vocabulary expansion. Diagnostic assessment therefore proves to be a valuable tool in identifying these issues and guiding curriculum improvement.

Figure 1. Illustrates the mean scores for each skill, highlighting the imbalance

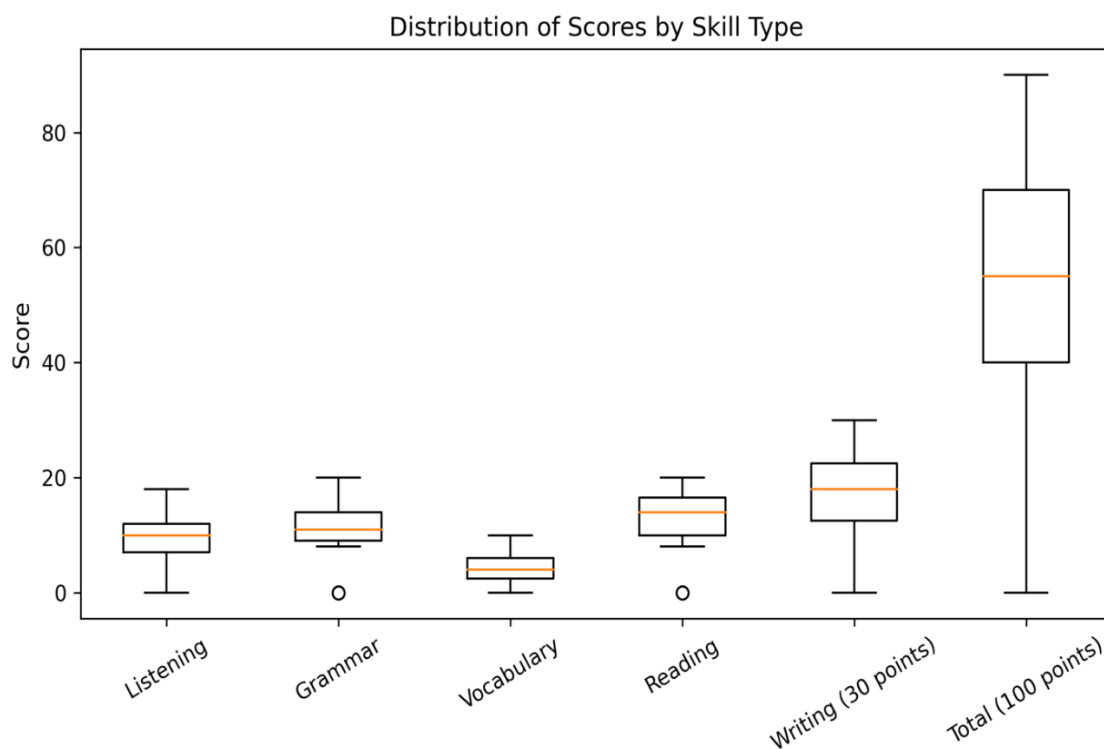


The diagnostic assessment results revealed clear differences in students' performance across the five assessed English language skills: listening, grammar, vocabulary, reading, and writing. Descriptive statistical analysis demonstrated an uneven distribution of proficiency levels across these

components. Among the assessed skills, writing, evaluated on a 30-point scale, recorded the highest mean score ($M \approx 15.6$), indicating comparatively stronger performance in structured writing tasks. Reading also showed relatively higher achievement with a mean score of approximately 11.8, followed by grammar ($M \approx 10.6$). These results suggest that students possess basic reading strategies and grammatical knowledge. In contrast, vocabulary emerged as the weakest skill area, with the lowest mean score ($M \approx 4$) among all assessed components. This indicates limited lexical range and insufficient depth of vocabulary knowledge across the majority of participants. Listening skills demonstrated moderate performance with a mean score of approximately 9, reflecting challenges in processing spoken English.

Figure 1 presents the mean scores for each language skill, clearly illustrating the imbalance in students' performance across the assessed components. Further distributional analysis using boxplots (Figure 2) revealed variability both within and across language skills. Writing and reading displayed wider interquartile ranges, indicating greater dispersion in performance levels among students. In contrast, vocabulary showed a narrow interquartile range and a low median score, suggesting consistently low performance across the cohort. The total score (out of 100 points) exhibited substantial dispersion, highlighting significant individual differences in overall English language proficiency.

Figure 2. Distribution of Scores by Skill



This boxplot illustrates the distribution of students' scores across different English language skills, including Listening, Grammar, Vocabulary, Reading, Writing, and the Total Score. The visualization provides a comprehensive overview of students' performance patterns and highlights variability both within and across individual language skills. For each skill, the box represents the interquartile range (IQR), capturing the middle 50% of scores, while the horizontal line inside the box indicates the median score. The whiskers extend to the minimum and maximum values excluding outliers, thereby illustrating the overall spread of performance within each skill area. This representation allows for a clear comparison of central tendency and dispersion among the assessed language components. The results indicate that students generally perform strongest in Writing and Reading, as reflected by their relatively higher median scores and wider interquartile ranges. This suggests that students are more familiar with structured writing tasks and reading comprehension activities, which are commonly emphasized in classroom instruction and examination-oriented learning contexts. The wider spread observed in these skills also implies variability in proficiency levels, with some students demonstrating relatively advanced abilities.

In contrast, Vocabulary exhibits the lowest median score and the narrowest interquartile range, indicating consistently low performance across the majority of students. This pattern suggests limited lexical range and insufficient depth of vocabulary knowledge, which may constrain learners' ability to comprehend texts, express ideas effectively in writing, and engage in meaningful communication. The limited variation further implies that vocabulary weakness is a shared challenge rather than an issue affecting only a small subgroup of learners.

The total score demonstrates a notably wide spread, reflecting substantial variation in overall English language proficiency among the student population. This wide dispersion highlights the heterogeneity of learners' abilities and underscores the need for differentiated instruction and targeted pedagogical support. From an assessment perspective, this finding reinforces the value of diagnostic assessment in identifying individual learning needs and informing instructional planning.

Overall, the boxplot provides clear empirical evidence of uneven language skill development among Mongolian high-school students. The findings emphasize the importance of strengthening vocabulary instruction and balancing receptive and productive skill development to enhance students' overall English language proficiency.

Discussion

The findings of this study indicate an imbalanced development of English language skills among Mongolian high-school students. The relatively strong performance in writing and

reading may be attributed to the dominance of exam-oriented instruction and textbook-based learning, which prioritize structured written tasks and reading comprehension activities. This aligns with previous research suggesting that traditional assessment practices tend to reinforce receptive and form-focused skills (*Brown, 2004; Nguyen, 2017*).

The low performance in vocabulary is particularly noteworthy. With a mean score of approximately 4, vocabulary weakness appears to be a shared challenge among students rather than an issue affecting only a small subgroup. This finding supports *Nation's (2001)* assertion that insufficient vocabulary knowledge significantly constrains learners' ability to develop higher-level language skills, including reading comprehension, writing quality, and communicative competence. The narrow distribution of vocabulary scores further suggests limited exposure to systematic and meaningful lexical instruction.

Listening performance, which showed moderate achievement, may reflect limited exposure to authentic spoken English in classroom contexts. In many EFL settings, including Mongolia, listening activities are often restricted to scripted materials and test-focused tasks, offering minimal opportunities for learners to engage with natural spoken input. This observation is consistent with *Lee's (2019)* findings in Asian EFL classrooms, where listening skills remain underdeveloped due to instructional constraints.

The wide dispersion observed in total scores highlights considerable heterogeneity in learners' overall English proficiency. From an assessment perspective, this reinforces the pedagogical value of diagnostic assessment in identifying individual learning needs. As *Alderson (2005)* emphasizes, diagnostic assessment provides fine-grained information that enables teachers to move beyond uniform instruction and adopt targeted, learner-centered pedagogical strategies.

Overall, the findings underscore the necessity of revising current teaching practices to achieve a more balanced development of language skills. Increased emphasis on systematic vocabulary instruction, greater integration of authentic listening materials, and expanded opportunities for communicative language use are essential for improving learners' overall proficiency. Diagnostic assessment, when used as a formative tool, can play a crucial role in guiding curriculum development and instructional planning in Mongolian secondary EFL education.

Conclusion

This study investigated the effectiveness of diagnostic assessment in evaluating English language proficiency among Mongolian high-school students, with a particular focus on identifying strengths and weaknesses across key language skills. The quantitative findings provide clear empirical evidence of uneven skill development among the participants.

The diagnostic test results revealed that writing, assessed on a 30-point scale, achieved the highest mean score ($M \approx 15.6$), indicating comparatively stronger performance in structured and exam-oriented writing tasks. Reading ($M \approx 11.8$) and grammar ($M \approx 10.6$) demonstrated moderate performance levels, suggesting that students possess a basic command of grammatical rules and reading strategies, likely shaped by textbook-based instruction and traditional assessment practices.

In contrast, vocabulary emerged as the weakest skill area, with the lowest mean score ($M \approx 4$). This quantitatively confirms a limited lexical range and insufficient depth of vocabulary knowledge, which may significantly constrain learners' reading comprehension, writing quality, and overall communicative competence. Listening skills ($M \approx 9$) also showed relatively low performance, reflecting challenges in processing spoken English and indicating limited exposure to authentic listening input in classroom contexts.

Furthermore, the wide dispersion observed in the total scores (out of 100 points) highlights substantial variability in overall English proficiency among students, underscoring learner heterogeneity and the necessity for differentiated instruction. These numerical patterns demonstrate the diagnostic assessment's effectiveness in capturing both central tendencies and variability across language skills.

Overall, the study confirms that diagnostic assessment is a powerful formative tool for evidence-based instructional planning. The quantitative results clearly indicate the need to strengthen systematic vocabulary instruction, increase exposure to authentic listening materials, and adopt communicative and learner-centered teaching approaches to achieve more balanced language development. Integrating diagnostic assessment data into regular teaching practice can support targeted intervention, remedial instruction, and curriculum improvement within the Mongolian secondary education context.

Future research should expand the sample size to improve generalizability, incorporate qualitative data such as classroom observations and teacher interviews, and examine the longitudinal impact of diagnostic assessment on learners' language development and academic achievement.

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