

Research Article

Leveraging Diagnostic Assessment Aligned to Differentiated Learning: Voices of English Language Teachers

Wiyaka Wiyaka^{1*}, Lusya Maryani Silitonga¹, Sunardi Sunardi², and Yuventius Tyas Catur Pramudi³

¹English Education Department, Universitas PGRI Semarang, 50232, Indonesia

²English Department, Universitas Dian Nuswantoro, 50131, Indonesia

³Information System Department, Universitas Dian Nuswantoro, 50131, Indonesia

ORCID

Wiyaka Wiyaka: <https://orcid.org/0000-0001-8073-2831>

Abstract.

The Merdeka Belajar curriculum emphasizes flexibility and student-centered learning, making diagnostic assessment crucial for teaching English effectively. By identifying each student's language proficiency and learning needs early on, teachers can tailor instruction to meet diverse abilities within the classroom. This aligns with the curriculum's goal of fostering independent and meaningful learning experiences. Diagnostic assessment also supports differentiated instruction, ensuring that students receive targeted support and challenges based on their individual progress. As a result, it enhances both student engagement and mastery in English, making it an essential tool for teachers implementing Merdeka Belajar curriculum. Despite the curriculum's clear benefits, there is a pressing need for a study investigating how teachers utilize diagnostic assessments to identify students' learning profiles, interests, and readiness. Therefore, this study intends to capture the utilization of diagnostic assessment to promote the differentiated learning, especially in junior high school. By employing qualitative research design, this study involved 19 English teachers in state and private junior high schools in Semarang, Central Java, Indonesia. Participatory observation and semi-structured interviews were used as the instrument to collect data. Through the qualitative analysis, this study revealed that English teachers utilized some tools such as Kahoot!, quizzes, Google Form, and questionnaires to implement diagnostic assessments. This study also delineated seven crucial procedures that English teachers conducted to successfully execute differentiated learning. These measures encompass structuring classroom arrangements, employing varied educational resources, implementing adaptable instructional strategies, and performing consistent assessment alongside prompt feedback. The incorporation of diagnostic assessment in the Merdeka Belajar curriculum is essential for developing effective differentiated learning modules. This method allows teachers to cater to the distinct needs of each student, hence improving their learning experiences and academic results.

Keywords: diagnostic assessment, differentiated learning, English teaching and learning

Corresponding Author: Wiyaka

Wiyaka; email:

wiyaka@upgris.ac.id

Published: 18 April 2025

Publishing services provided by
Knowledge E

© Wiyaka Wiyaka et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICESRE Conference Committee.



1. Introduction

The educational landscape in Indonesia is experiencing a transition due to the adoption of the *Merdeka Belajar* curriculum. This novel methodology underscores adaptability and the significance of student-centered education, enabling educators to modify their teaching to address the varied requirements of learners [1,2]. A fundamental component of this curriculum is the implementation of diagnostic assessment to improve learning results. In English education, especially at the junior high school level, diagnostic assessments allow educators to ascertain each student's language proficiency and individual learning requirements [3,4]. Through early and ongoing assessment of students, teachers are better positioned to deliver tailored instruction that conforms with the curriculum's fundamental concepts of promoting autonomous and significant learning experiences.

In conventional classroom settings, teachers frequently employ standardized teaching methods that do not accommodate the diverse capacities of pupils. This uniform approach may result in advanced learners feeling unchallenged and struggling learners lacking help, so impeding the overall academic advancement of the classroom. The *Merdeka Belajar* curriculum seeks to resolve this issue by promoting differentiated learning [5], thereby providing students with opportunities to interact with the material at their individual speed and degree of preparedness [6]. Differentiated learning relies on recognizing students' initial levels, rendering diagnostic assessment an essential instrument for the successful use of this educational approach. Diagnostic assessments enable educators to create more inclusive lesson plans that account for individual learning profiles, interests, and readiness levels [7].

The value of diagnostic assessment beyond the mere identification of academic strengths and limitations. It functions as an ongoing feedback system, enabling teachers to make informed choices on instructional methods and deliver focused interventions. In junior high schools, English teachers can utilize diagnostic exams to identify particular areas requiring support for children with diverse language abilities, including grammar, reading comprehension, and speaking skills [8,9]. By acquiring this understanding, teachers can tailor their training, presenting more complex resources to proficient students while supplying remediation for those need further assistance. This technique fosters fairness in the classroom and guarantees that each student progresses towards proficiency at their individual speed [10-13]

Despite the obvious benefits of incorporating diagnostic assessments into varied learning, teacher practical use of these tests has received little attention. Although numerous teachers acknowledge the theoretical advantages, a gap persists in comprehending the application of diagnostic tools in actual classrooms, especially within the framework of the *Merdeka Belajar* curriculum. It is crucial to examine how educators gather and employ data from these assessments to guide their teaching methodologies. Moreover, discerning the particular tools and methodologies employed by teachers to conduct diagnostic assessments, including digital platforms such as Kahoot! and Google Forms, will yield significant insights regarding the role of technology in this process.

This study aims to investigate how junior high English instructors in Semarang, Central Java, employ diagnostic assessments to execute varied instruction, given the significance of differentiated learning in promoting student engagement and academic performance. This study utilizes a qualitative research approach, using participatory observation and semi-structured interviews with 19 English teachers, to examine the practical application of diagnostic assessments in facilitating customized learning experiences. The results will enhance the existing literature regarding the function of diagnostic assessments within the *Merdeka Belajar* curriculum and offer practical advice for educators aiming to improve their methods of differentiated learning.

2. Method

This study employed a qualitative research design to explore how diagnostic assessments are utilized by junior high school English teachers in promoting differentiated learning, particularly within the context of the *Merdeka Belajar* curriculum. The research took place in Semarang, Central Java, Indonesia, involving 19 English teachers from both state and private junior high schools. A purposive sampling technique was used to select teachers who actively applied diagnostic assessment in their teaching practices.

Data collection methods consisted of participatory observation and semi-structured interviews. The participatory observation allowed the researchers to directly observe classroom dynamics, how teachers applied diagnostic tools, and the interactions that occurred as a result of differentiated learning activities. Observing the real-time application of diagnostic assessments provided valuable insight into the practical steps and strategies teachers employed to adjust instruction based on student needs.

Semi-structured interviews were conducted to gain a deeper understanding of the teachers' perspectives, their challenges, and the specific diagnostic tools they used. Each interview lasted between 45 and 60 minutes and was recorded with the consent of the participants. The interviews focused on key aspects such as the teachers' experiences with diagnostic assessment tools like Kahoot!, Quizzes, Google Forms, and questionnaires, as well as their methods for analyzing the results to inform differentiated instruction.

The data from both the observations and interviews were analyzed using thematic analysis, which involved coding and categorizing the data to identify recurring themes related to the application of diagnostic assessment and the execution of differentiated learning. This analysis revealed seven crucial procedures that teachers followed to successfully implement differentiated instruction, including the customization of classroom arrangements, the use of diverse learning resources, the adaptation of teaching strategies, and the continual assessment of students with immediate feedback.

These methods allowed the researchers to gain an in-depth understanding of the practical application of diagnostic assessment in the classroom and how it fosters differentiated learning within the Merdeka Belajar framework. The combination of participatory observation and semi-structured interviews provided comprehensive data that highlighted both the benefits and the challenges of implementing these educational practices..

3. Result and Discussion

The study investigating how EFL teachers identify students' learning profiles, interests, and readiness through diagnostic assessments in junior high schools in Semarang revealed several key findings. Moreover, this study also found crucial procedures that were implemented by the EFL teachers in implementing differentiated learning in their classrooms.

3.1. Tools to Implement Diagnostic Assessments

The qualitative analysis of this study unveiled a range of digital and traditional tools employed by English teachers in Semarang's junior high schools to conduct diagnostic assessments. Through participatory observation and semi-structured interviews, it became evident that teachers leveraged a combination of technology-based platforms

and conventional methods to gauge their students' learning profiles, interests, and readiness levels.

Kahoot!, an interactive learning platform, emerged as a popular choice among the observed teachers. In 14 out of 19 classrooms, teachers were seen using Kahoot! to create engaging quizzes that assessed students' knowledge of vocabulary, grammar, and reading comprehension. Some teachers enthusiastically shared it during the interview.

"Kahoot! has revolutionized how I conduct quick assessments. The students love the game-like format, and I get instant feedback on their understanding. It's a win-win situation." (Teacher 7)

"What I love about Kahoot! is that I can create tiered quizzes with questions of varying difficulty. This allows me to assess students at different proficiency levels simultaneously, giving me a clear picture of where each student stands." (Teacher 12)

This gamified approach to assessment not only provided teachers with valuable diagnostic information but also increased student engagement and motivation. Furthermore, the excerpts demonstrate how teachers are leveraging the platform's features to conduct nuanced diagnostic assessments that cater to diverse student abilities within a single classroom. The teacher went on to explain that they use the data from these tiered Kahoot! quizzes to form flexible groupings for subsequent lessons, ensuring that students are appropriately challenged based on their current skill levels [14,15].

Quizzes, both in digital and paper formats, were another frequently observed tool for diagnostic assessment. All 19 teachers in the study utilized quizzes in some form, with 12 teachers opting for online quiz platforms and 7 preferring traditional paper-based quizzes. An interviewed teacher explained the rationale behind using both formats:

"I mix it up between online and paper quizzes. Online quizzes give me quick data, but paper quizzes allow me to see students' thought processes through their workings. Both have their place in my diagnostic toolkit." (Teacher 3)

This hybrid approach demonstrated teachers' awareness of the strengths and limitations of different quiz formats in providing comprehensive diagnostic information.

Meanwhile, another tool used by the EFL teachers is Google Forms. It emerged as a versatile tool for diagnostic assessments, observed in use by 16 out of 19 teachers. The platform was employed not only for academic assessments but also for gathering information about students' interests and learning preferences.

“Google Forms is incredibly flexible. I use it for grammar checks, reading comprehension tests, and even surveys about students’ favorite topics or learning styles. The automatic data compilation saves me hours of work.” (Teacher 11)

The ease of creating, distributing, and analyzing assessments through Google Forms appeared to be a significant factor in its widespread adoption among the observed teachers.

Traditional questionnaires, typically in paper format, were still utilized by a subset of teachers, particularly for in-depth diagnostics at the beginning of the school year. In 8 out of 19 classrooms, teachers were observed using comprehensive questionnaires to gather detailed information about students’ language learning backgrounds, motivations, and goals. An experienced teacher shared:

“While I love the efficiency of digital tools, there’s something about a good old-fashioned questionnaire that encourages students to reflect deeply on their learning journey. I find the responses more thoughtful and revealing.” (Teacher 15)

This insight highlighted the continued relevance of traditional methods alongside digital tools in conducting thorough diagnostic assessments.

3.2. Crucial Procedures for Differentiated Learning in EFL Classrooms

The study revealed that EFL teachers in Semarang’s junior high schools employed seven crucial procedures to successfully implement differentiated learning. These procedures were observed across the 19 classrooms and further elaborated upon during semi-structured interviews with the teachers.

3.2.1. Structuring Classroom Arrangements

Participatory observation revealed that 16 out of 19 teachers regularly modified their classroom layouts to accommodate different learning activities. These arrangements included small group setups, U-shaped configurations for discussions, and individual workstations for independent tasks.

“I change my classroom setup at least twice a week. Sometimes we’re in small groups for collaborative projects, other times in a circle for whole-class discussions. This flexibility allows me to cater to different learning styles and activities.” (Teacher 4).

This quote highlights the teacher's understanding of the relationship between physical space and learning effectiveness. By regularly altering the classroom layout, the teacher creates environments conducive to various learning styles and activities. For instance, small groups facilitate peer learning and collaborative problem-solving, while a circular arrangement encourages equal participation in discussions. This flexibility not only accommodates different learning preferences but also helps maintain student engagement by providing variety in the learning environment.

3.2.2. Employing Varied Educational Resources

All 19 observed teachers utilized a diverse range of educational materials. These included traditional textbooks, digital resources, authentic materials (such as newspapers and magazines), and teacher-created materials tailored to students' interests and proficiency levels.

"I use a mix of resources because no single textbook can meet all my students' needs. Some days we're working with online language learning platforms, other days we're analyzing English lyrics from popular songs. This variety keeps students engaged and addresses different learning preferences." (Teacher 8)

This teacher's approach demonstrates an understanding that language learning is most effective when it's contextualized and relevant to students' lives. By incorporating a variety of resources, including authentic materials like song lyrics, the teacher makes language learning more engaging and relatable. The use of online platforms caters to digital natives, while the analysis of popular songs connects language learning to students' interests. This diverse approach not only maintains student engagement but also exposes learners to different registers and contexts of English usage, crucial for developing well-rounded language skills.

3.2.3. Implementing Adaptable Instructional Strategies

Observations showed that teachers employed a variety of instructional approaches, often within a single lesson. These included direct instruction, guided practice, cooperative learning, and independent study. 15 out of 19 teachers were observed switching between at least three different strategies in one class period.

“I might start with a brief lecture to introduce a new grammar point, then move to pair work for practice, and end with individual writing tasks. This way, I can address the needs of auditory, visual, and kinesthetic learners all in one lesson.” (Teacher 15)

The excerpt illustrates the teacher’s awareness of different learning modalities and the importance of catering to diverse learning styles within a single lesson. The lecture component serves auditory learners and provides a clear introduction to new concepts. Pair work allows for verbal practice and peer learning, benefiting both auditory and interpersonal learners. The individual writing task caters to visual and kinesthetic learners while also providing an opportunity for personal application of the learned concept. By incorporating these varied approaches, the teacher ensures that all students have multiple opportunities to engage with and internalize the material, regardless of their preferred learning style.

3.2.4. Performing Consistent Assessment

All observed teachers conducted regular formative assessments. These ranged from quick comprehension checks to more formal quizzes and projects. 17 out of 19 teachers were observed using assessment results to inform their subsequent lessons.

“I assess my students’ progress almost every day, even if it’s just through observation or quick exit tickets. This constant feedback helps me adjust my teaching plans in real-time to address any gaps or misconceptions.” (Teacher 1)

This approach underscores the importance of continuous assessment in differentiated learning. By conducting frequent, low-stakes assessments, the teacher gains immediate insight into students’ understanding and progress. The use of varied assessment methods, from observation to exit tickets, allows for a comprehensive view of student learning [16]. The key aspect here is the teacher’s readiness to adjust their teaching plans based on assessment results. This flexibility ensures that instruction remains responsive to students’ needs, addressing misconceptions promptly and tailoring future lessons to build on students’ current understanding.

3.2.5. Providing Prompt Feedback

Closely tied to consistent assessment was the provision of timely feedback. In 18 out of 19 classrooms, teachers were observed providing immediate verbal feedback during

activities. Written feedback on assignments was typically returned within 2-3 days. A teacher commented:

“Quick feedback is crucial in language learning. I try to correct pronunciation or usage errors on the spot, and I return written work as soon as possible. This immediacy helps students make connections and corrections while the material is still fresh in their minds.” (Teacher 6)

This highlights the critical role of timely feedback in language acquisition. Immediate verbal feedback, especially for pronunciation and usage errors, allows students to make real-time adjustments, preventing the reinforcement of incorrect patterns. The emphasis on returning written work quickly ensures that students can connect the feedback to their thought process at the time of writing. This immediacy in feedback not only aids in correcting errors but also reinforces correct usage, accelerating the language learning process [17]. Moreover, prompt feedback demonstrates the teacher’s engagement with students’ work, which can boost motivation and encourage students to pay closer attention to their language production.

3.2.6. Differentiating Content

14 out of 19 teachers were observed providing different levels of reading materials or adjusting the complexity of language tasks based on students’ proficiency levels. This strategy exemplifies the core principle of differentiated instruction – meeting students at their current level while pushing them towards growth. By creating multiple versions of the same text, the teacher ensures that all students can engage with the same content and participate in class discussions, regardless of their current proficiency level.

“I often prepare three versions of a reading text – simplified, standard, and advanced. This allows all students to engage with the same topic but at a level that challenges them appropriately.” (Teacher 12)

This approach prevents less proficient students from feeling overwhelmed or discouraged, while also ensuring that more advanced students remain challenged and engaged. It allows for a shared classroom experience and discussion topic, fostering inclusion, while still providing appropriate levels of challenge for each student’s language development.

3.2.7. Encouraging Student Choice

In 13 out of 19 classrooms, teachers were observed offering students choices in their learning activities or assessment methods.

“I give my students options whenever possible. For a recent project, they could choose to write an essay, create a video, or give a presentation. This autonomy increases their motivation and allows them to play to their strengths.” (Teacher 18)

The excerpt underscores the importance of student agency in the learning process. By offering choices in both learning activities and assessment methods, the teacher acknowledges and respects the diverse strengths and preferences of their students. This approach not only increases motivation, as students feel more invested in tasks they have chosen, but also allows them to demonstrate their understanding in ways that best suit their abilities and learning styles. For instance, a student who struggles with writing might excel in creating a video, while another might prefer the structure of a traditional essay. This flexibility in assessment ensures that students can showcase their language skills and understanding in authentic ways, potentially leading to more accurate assessments of their true abilities.

Those seven procedures were not implemented in isolation but were often integrated and applied simultaneously. Teachers reported that while these strategies required additional planning and effort, they significantly enhanced student engagement and learning outcomes.

3.3. Discussion

The findings of this study provide valuable insights into the implementation of differentiated learning in EFL classrooms in Semarang’s junior high schools. The research revealed two main aspects: the tools used for diagnostic assessments and the crucial procedures employed for differentiated learning.

The utilization of a diverse range of tools for diagnostic assessments, including both digital platforms (Kahoot!, Google Forms) and traditional methods (paper quizzes, questionnaires), aligns with the growing trend of technology integration in language classrooms [17]. The popularity of Kahoot! among teachers (14 out of 19 classrooms) supports previous research highlighting the benefits of gamification in language learning [18]. The ability to create tiered quizzes in Kahoot!, as mentioned by Teacher 12, demonstrates an innovative approach to differentiated assessment within a single platform. The hybrid

approach of using both digital and paper-based quizzes, as explained by Teacher 3, reflects a nuanced understanding of assessment. This approach aligns with the concept of multi-modal assessment advocated by [19] which suggests that a combination of assessment methods provides a more comprehensive view of student abilities.

The widespread use of Google Forms (16 out of 19 teachers) for both academic assessments and gathering information about students' interests exemplifies the versatility of digital tools in supporting differentiated instruction. This finding resonates with research by [20] who emphasize the importance of understanding student interests and learning preferences in differentiated classrooms. Furthermore, the continued use of traditional questionnaires, particularly for in-depth diagnostics at the beginning of the school year, suggests that teachers value the reflective process these tools can encourage. This practice aligns with the concept of learner autonomy in language learning [21], as it prompts students to think deeply about their learning journey.

The seven essential procedures identified in this study also establish a comprehensive framework for implementing differentiated learning in English as a Foreign Language (EFL) classrooms. These procedures are closely aligned with [20]'s model of differentiated instruction, which emphasizes the differentiation of content, process, and product based on students' readiness, interests, and learning profiles.

A critical component of this framework is the structuring of classroom arrangements. The flexible utilization of physical space observed in 16 out of 19 classrooms corroborates findings by [22], which highlight the significant impact of classroom environments on student engagement and learning outcomes. Coupled with this, the employment of varied educational resources—such as authentic materials like song lyrics—aligns with the communicative language teaching approach [23]. This practice enhances student engagement and exposes learners to real-world applications of language.

To add, the implementation of adaptable instructional strategies reflects a commitment to addressing diverse learning styles. The observation that 15 out of 19 teachers utilized at least three different strategies within a single class period supports [24] theory of multiple intelligences and its applications in language education. In addition, the practice of consistent assessment across all classrooms underscores the importance of ongoing evaluation in differentiated instruction [22]. The integration of assessment results into subsequent lesson planning exemplifies a data-driven approach to teaching.

Prompt feedback is another critical element, with a strong emphasis on immediate verbal responses and quick turnaround on written work. This practice supports [23]

research, which highlights the significant impact of feedback on learning outcomes. Differentiating content is also essential; providing reading materials at varying levels exemplifies [24]'s concept of the Zone of Proximal Development, ensuring that all students encounter appropriately challenging material.

Lastly, encouraging student choice through options in learning activities and assessment methods aligns with self-determination theory [25], which posits that autonomy enhances intrinsic motivation. Together, these procedures create a robust framework for fostering differentiated learning in EFL classrooms, ultimately promoting more effective and inclusive educational experiences.

4. Conclusion and Suggestion

This study provides a comprehensive picture of differentiated learning practices in EFL classrooms, highlighting both the tools used for diagnostic assessment and the crucial procedures employed. The findings demonstrate that teachers are adapting research-based differentiation strategies to the specific context of EFL instruction. Future research could explore the long-term impact of these practices on student achievement and motivation in language learning.

The findings suggest that EFL teachers in Semarang are successfully implementing many aspects of differentiated instruction. However, the integration of these practices requires significant effort and planning, as noted by the teachers. This highlights the need for professional development programs focused on efficient implementation of differentiated learning strategies. The reliance on digital tools for assessment and instruction, while beneficial, also raises concerns about technology access and reliability. This echoes challenges identified in previous studies on technology integration in language classrooms (Buabeng-Andoh, 2012).

References

- [1] Hadi A, Marniati M, Ngindana R, Kurdi MS, Kurdi MS, Fauziah F. New paradigm of merdeka belajar curriculum in schools. *Al-Ishlah Jurnal Pendidikan*. 2023;15(2):1497–510.
- [2] Ingthias FT, Ampera D, Fariyah F, Amal BK, Purba AS. Implementation of teaching practitioners in improving the quality of learning and implementing the curriculum Merdeka Belajar. *Jurnal Studi Guru dan Pembelajaran*. 2022;5(2):157–69.

- [3] Csapó B, Molnár G. Online diagnostic assessment in support of personalized teaching and learning: the eDia system. *Front Psychol.* 2019;10:1522.
- [4] Chapelle CA, Cotos E, Lee J. Validity arguments for diagnostic assessment using automated writing evaluation. *Lang Test.* 2015;32(3):385–405.
- [5] Hunaepi H, Suharta I. Transforming education in Indonesia: the impact and challenges of the Merdeka Belajar curriculum. *Path of Science.* 2024;10(6):5026–39.
- [6] Wahyuni S, Fitriyah I, Hasanah I. The implementation of Merdeka Belajar curriculum at English department of Indonesian universities. *JEELS.* 2023;10(2):307–32.
- [7] Nurmasyitah P, Amiruddin A, Salim A, Fransiska I, Daris K, Suryani K. Implementation Merdeka curriculum of learning to students' learning activities. *Holistic Science.* 2023;3(1):39–44.
- [8] Fan T, Song J, Guan Z. Integrating diagnostic assessment into curriculum: a theoretical framework and teaching practices. *Lang Test in Asia.* 2021;11(1):1–23.
- [9] Toprak TE, Cakir A. Examining the L2 reading comprehension ability of adult ELLs: developing a diagnostic test within the cognitive diagnostic assessment framework. *Lang Test.* 2021;38(1):106–31.
- [10] Tang F, Zhan P. Does diagnostic feedback promote learning? Evidence from a longitudinal cognitive diagnostic assessment. *AERA Open.* 2021;7(1):1–15.
- [11] Kamrood AM, Davoudi M, Ghaniabadi S, Amirian SM. Diagnosing L2 learners' development through online computerized dynamic assessment. *Comput Assist Lang Learn.* 2019;34(1):1–30.
- [12] Yang Y, Qian DD. Promoting L2 English learners' reading proficiency through computerized dynamic assessment. *Comput Assist Lang Learn.* 2019;33(5-6):628–52.
- [13] Poehner ME, Wang Z. Dynamic assessment and second language development. *Lang Teach.* 2021;54(4):472–90.
- [14] Munasih DS, Prastikawati EF, Wiyaka W, Adeoye MA. Writing assessment literacy: investigating EFL teachers' writing assessment practices in a vocational school. *Educalingua.* 2024;2(1):12–24.
- [15] Prastikawati EF, W. Technology-based formative assessments implemented by secondary school English teachers during remote learning. *KnE Social Sciences.* 2022;7(14):180–90.
- [16] Lisyowati W, Wiyaka W, Prastikawati EF. English teachers' conceptions of formative assessment in online teaching. *Language Circle: Journal of Language and Literature.* 2021;16(1):177–86.

- [17] Wiyaka W, Prastikawati E. Plickers as an online formative assessment to improve secondary school students' English learning. *SSRN Electronic Journal*. 2021.
- [18] Meiantoni D, Wiyaka W, Prastikawati EF. Online assessment in English classroom: EFL teachers' practices and challenges. *Journal of English Education and Linguistics*. 2021;2(2):26–36.
- [19] Prastikawati EF. Pre-service EFL teachers' perception on technology-based formative assessment in their teaching practicum. *ELT Forum: Journal of English Language Teaching* 2021;10(2):163–71.
- [20] Christison M. Applying multiple intelligences in the ESL classroom. *TESOL J*. 1996;5(4):17–20.
- [21] Dwinalida K, Setiaji S. Students' motivation and English learning achievement in senior high school students. *English Education, Linguistics, and Literature Journal*. 2022;1(1):1–9.
- [22] Deci EL, Ryan RM. The “what” and “why” of goal pursuits: human needs and the self-determination of behavior. *Psychol Inq*. 2000;11(4):227–68.
- [23] Heritage M. Formative assessment: A bridge between assessment and instruction. *Educ Leadersh*. 2007;65(4):25–7. Available from: <https://www.ascd.org/el/articles/formative-assessment-a-bridge-between-assessment-and-instruction>
- [24] Guardino C, Fullerton E. Classroom environment and student engagement. *Clearing House*. 2010;83(4):151–5.
- [25] Hattie J, Timperley H. The power of feedback. *Review of Educational Research*. 2007;77(1):81–112.
- [26] Gardner H. *Frames of mind: the theory of multiple intelligences*. Basic Books; 1983. <https://doi.org/10.3102/003465430298487>.
- [27] Tomlinson CA. *The differentiated classroom: responding to the needs of all learners*. ASCD; 2014.