

TEACHERS' PERCEPTION AND IMPLEMENTATION OF AUTHENTIC ASSESSMENT IN EFL CLASSROOM

**Nathania Gian Simorangkir¹, Syaqinah Siregar², Sulastri Zendrato³,
Halasson Parasian Panjaitan⁴, Alouisia Maristella Anideswita Parhusip⁵, Meisuri⁶**
nathaniagians@gmail.com¹, syaqinahkina@gmail.com², lastrizendd22@gmail.com³,
halassonparasiann@gmail.com⁴, alouisiamaristellaap@gmail.com⁵, meisuriw@yahoo.com⁶

Universitas Negeri Medan

ABSTRACT

This study investigates English teachers' perceptions and classroom implementation of authentic assessment at SMA Negeri 12 Medan. Although authentic assessment is widely recognized as essential for developing 21st-century competencies, such as critical thinking, communication, collaboration, and digital literacy, its practical application in classrooms often remains inconsistent. Using a qualitative descriptive design and a case study approach, data were collected through interviews, observations, and documentation from two English teachers who taught topics related to expository and argumentative texts. The findings show that both teachers possessed a strong conceptual understanding of authentic assessment, viewing it as performance-based tasks that reflect real-world communication. They valued authentic assessment for promoting students' engagement, fluency, confidence, and higher-order thinking. In practice, both teachers implemented activities such as debates, presentations, project work, and multimodal tasks, which aligned with key principles of authenticity. However, gaps appeared in the assessment procedures, particularly in the limited use of rubrics, explicit criteria, and descriptive feedback. While the tasks were meaningful and relevant, the lack of structured scoring reduced the consistency and transparency of the evaluation. The study concludes that teachers' beliefs align with theoretical principles, but their implementation requires further support to ensure systematic, criterion-referenced assessment. Strengthening teachers' skills in rubric development, feedback practices, and assessment design is essential for maximizing the effectiveness of authentic assessment in EFL classrooms.

Keywords: Teachers' Perception, Teachers' Implementation, Authentic Assessment, EFL Classroom.

INTRODUCTION

Assessment approaches in 21st-century education are increasingly emphasizing the demonstration of real abilities rather than the recall of memorized information. This shift is being driven by the growing expectation that students must develop creativity, critical thinking, communication, collaboration, and digital literacy in order to effectively participate in a rapidly changing global society (Trilling and Fadel, 2009; Partnership for 21st Century Learning, 2019). These demands are especially important in language learning because communication necessitates students using language purposefully, interactively, and creatively in ways that reflect real-world use. Traditional assessments have long been criticized for failing to capture these competencies because they frequently measure discrete knowledge rather than students' ability to use language for meaningful communication (Brown, 2004). As a result, scholars and policymakers are increasingly recommending the use of authentic assessment to promote deeper, more functional learning.

Authentic assessment evaluates students using tasks that simulate real-world communication, such as presentations, debates, role-playing, and project work (Wiggins, 1998; O'Malley & Pierce, 1996, cited in Berliana, 2024). Research published in the last five years has consistently demonstrated its benefits. Putra and Abdullah (2020) discovered that authentic tasks significantly increase learners' motivation and linguistic engagement because they require students to construct original ideas rather than simply reproducing memorized forms. Similarly, Rahmawati and Rukmini (2021) found that formative authentic techniques like peer and self-assessment improve students' metacognition, autonomy, and communication abilities. More recent research has highlighted the role of digital tools in authentic assessment. Habibi and Yusuf (2021) found that multimodal digital tasks improve creativity and student engagement, while Hidayah and Harjanto (2023) discovered that authentic assessment in online environments promotes digital communication skills and independent learning. These findings suggest that authentic assessment supports modern educational goals by encouraging students to think critically, collaborate effectively, and use language in meaningful situations.

While the theoretical value of authentic assessment is well understood, research shows that classroom implementation is frequently inconsistent. Several studies conducted between 2020 and 2024 discovered that teachers may conceptually support authentic assessment but struggle to implement it systematically due to time constraints, inadequate training, or a lack of assessment tools (Daud et al., 2023; Yusuf & Widyaningrum, 2021). A recurring issue is the lack of explicit rubrics, clear criteria, and descriptive feedback, all of which are necessary to ensure fairness, transparency, and alignment with learning objectives (Brookhart, 2013; Gulikers, Bastiaens, & Kirschner, 2004). When these components are missing, authentic tasks lose their evaluative rigor and become subjective or inconsistent, despite the fact that they are meaningful and engaging to students.

Preliminary data from the current study reflect this exact problem. Although the teachers observed have already included authentic activities such as discussions, presentations, and debates, their assessment process is still not fully structured. The tasks are meaningful and communicative, but the evaluation procedures do not include rubrics, explicit scoring criteria, or descriptive feedback. As a result, students' performances are evaluated in a broad but informal manner, preventing accurate measurement of specific competencies. This gap between practice and assessment design suggests that teachers recognize the value of authentic tasks but require additional assistance in implementing systematic, criterion-referenced assessment procedures.

These observations highlight the importance of investigating not only the authentic tasks used by teachers, but also how they are assessed. Several recent studies have found that authentic assessment is most effective when the design, criteria, and feedback are clearly articulated (Sung, Chang, & Liu, 2020; Khoirunnisa & Wulandari, 2022). Without this, authentic activities may increase engagement but provide insufficient evidence of learning. As a result, investigating teachers' perceptions and classroom practices is critical to understanding the degree of alignment between theoretical principles and practical implementation.

Against this backdrop, the current study looks into the perceptions and practices of two English teachers at SMA Negeri 12 Medan regarding authentic assessment. This study seeks to identify how authentic assessment is interpreted and implemented in real

classroom settings by examining their conceptual understanding, instructional choices, and assessment procedures. The study also aims to identify potential gaps between teachers' theoretical beliefs and their practical application, particularly the use or absence of structured rubrics, explicit criteria, and descriptive feedback. Understanding these dynamics is critical for improving assessment practices, supporting teacher development, and ensuring that authentic assessment achieves its intended goal of promoting meaningful, communicative, and higher-order language learning.

METHOD

The qualitative descriptive method was used in this study. According to Gay (in Harahap & Fauzana, 2025), the descriptive method is the comprehensive collection, analysis, and interpretation of qualitative and non-numerical data to gain a deeper understanding of the phenomenon in question, guided by various beliefs and objectives that differ from those of quantitative research methods. This method was chosen because the current study seeks to investigate teachers' perceptions and classroom implementation of authentic assessment, with a focus on how assessment practices align with the theoretical framework proposed by O'Malley and Pierce (1996) for real-world, performance-based tasks.

A case study approach was chosen because it allows researchers to investigate a bounded system, in this case, two English teachers at SMA Negeri 12 Medan, in depth and within their actual instructional environment (Creswell, 2013). The participants, known as teacher "E" and teacher "K," were chosen using purposive sampling based on the relevance of the materials they taught to authentic assessment. Teacher "E" teaches Grade XII with topics on Argumentative Text and E-Money in Everyday Life. In contrast, teacher "K" teaches Grade X with topics on Expository Text and Graffiti as Art. Their classes provided a suitable setting for examining how authentic assessment is conceptualized and practiced in EFL classrooms.

The research data included verbal explanations from teachers, observable classroom practices, and supporting documents like lesson plans, rubrics, and student work samples. Three instruments were used to collect data: an interview guideline, an observation checklist, and documentation sheets. Semi-structured interview guidelines were developed to investigate teachers' understanding, perceived benefits, and challenges associated with authentic assessment. The observation checklist was created using key features of authentic assessment outlined by Gulikers, Bastiaens, and Kirschner (2004), such as task nature, assessment criteria, learner involvement (e.g., peer or self-assessment), and reflective components. A documentation analysis was conducted to determine whether teachers' planned assessments matched their actual classroom practices.

Data was gathered using in-depth interviews, direct classroom observations, and document analysis. Interviews provided information about how teachers interpret authentic assessment theoretically and conceptually. Classroom observations enabled the researchers to determine whether instructional and assessment practices reflected real-world, meaningful tasks, as proposed by Wiggins (1998) and Brown and Abeywickrama (2010). The collected documents increased the validity of the findings by providing tangible evidence of planning and implementation.

The data were analyzed using thematic analysis, which included transcription, coding, categorization, and interpretation (Braun & Clarke, 2006). Following data transcription, recurring ideas were coded, grouped into themes, and interpreted using the authentic assessment framework developed by O'Malley and Pierce (1996) and Gulikers et al. (2004). The analysis followed Miles and Huberman's (2014) interactive model, which included data reduction, data display, and conclusion drawing. A "theory versus practice" comparison was then conducted to determine the degree of alignment (or misalignment) between teachers' stated conceptual understanding, assessment planning, and actual classroom practices. This procedure allowed the study to clearly identify gaps between theoretical expectations and actual implementation.

FINDINGS & DISCUSSION

Teachers' Perceptions of Authentic Assessment

Understanding of Authentic Assessment among Teachers

The findings show that both Teacher E and Teacher K have a solid conceptual understanding of what authentic assessment is. Teacher E has defined authentic assessment clearly and correctly, saying it is an evaluation task where students employ meaning and target language English meaningfully. This reflects the essential concept of performance-based assessment initiated by O'Malley and Pierce (1996), which states that authentic assessment should require a learner to generate language to convey meaning, not recall pre-learned language.

Teacher K has a similar understanding but expresses it using various examples. According to Teacher K, authentic assessment involves role plays, portfolio assessment, and debates, which are activities where the students' true linguistic competence is apparent and not just their ability to recall what has been learned. This is supported by Wiggins (1998), who contends that authentic assessment is evident when the task is representative of real-life communication and necessitates the application of knowledge rather than recall. The coming together of the understandings of the two teachers shows a high level of understanding of the principles of authenticity.

The responses of the two teachers are also consistent with past studies which point to the cognitive benefits of authentic assessment and how it assists in more meaningful learning. Lisdawati and Umam (2022), for example, revealed that performance tasks improve students' critical thinking abilities because they can support arguments, evaluate viewpoints, and develop arguments, which are the very attributes emphasized by Teacher E and Teacher K. As such, it appears that the perceptions of the latter are very much attuned to the notion found in literature that authentic assessments are not only used to measure learner achievements but also provide a mean to develop communication, logical, and cognitive skills.

Beliefs of Teachers Regarding the Value of Authentic Assessment

Teacher E. thinks that authentic assessment is paramount to English learning, and it is because language needs to be used, not rote-learned. Moreover, conventional paper-and-pencil tests never measure communicative competence because they involve not only conveying ideas, meaning, and argumentative structure, but also dealing with meaning online. According to Brown and Abeywickrama (2010), performance tasks reveal

pragmatic competence and communicative strategies. This is what Teacher E. has observed when students take part in debates.

In the same vein, Teacher K insists that authentic assessment allows students to apply what has been learned inside the classroom to real-life contexts. This is evident when Teacher K observes and discusses the benefits of speaking activities, simulations, and group work, and notes that students who take part in such activities are more likely to retain information and possess more confidence. This is supported by Gulikers et al. (2004), who claim the following regarding authentic assessment:

These assumptions resonate with findings from earlier literature, which suggest that authentic assessments encourage motivation, confidence, and learning (Ismail, Subramaniam, and Ibrahim, 2023). The perceptions of the teachers support the notion of performance assessment impacting the development of linguistic, cognitive, social, and affective abilities.

Teachers' Preferred Forms of Authentic Assessment

Teacher E integrates the use of performance tasks, including debates, video-based assignments, and class presentations. These enable students to show their communicative skills effectively, which involves speaking fluently, accurately, and communicatively. This preference is supported by the works of O'Malley and Pierce (1996), which suggest the importance of including various modes to capture the abilities of the learner accurately.

Teacher K also engages his students in debates, role plays, and group performances, and portfolio tasks. The integration of portfolio tasks is important, which shows the increasing trend of multimodal and longitudinal modes of assessment. As Vlachopoulos (2024) argued, the inclusion of portfolio tasks is essential in relation to authentic assessment, which focuses on compiling data on learning and including progress rather than stressing singular occurrences. This is important to Teacher K's aim of obtaining information on linguistic development.

These preferred models demonstrate how the educators operationalize authentic assessment within the contemporary paradigms to reveal an understanding of authentic assessment involving more than one dimension, and it is centered on learning processes.

Perceived Benefits for Students' Learning and Development

Both teachers have reported great benefits of authentic assessment on the students' level of engagement, confidence, and communication. Teacher E reported increased enthusiasm and smooth eloquence among the students when participating in debates and presentations. In addition, improvements were noted in critical thinking, especially when critically examining evidence and presenting arguments. Similarly, Teacher K reported improvements in fluency, interaction, and understanding during performance tasks conducted by students. These observations are supported by various sources, which also claim increased levels of higher-order thinking, teamwork, and authentic performance by students who are assessed using authentic assessments.

The observations made by the teachers are well supported by various studies. Research by Ismail, Azlin, and Hassan (2023) shows that self-regulation, reflection, and communicative independence are encouraged by authentic assessments. Moreover, studies by Lisdawati and Umam (2022) show analytical abilities are promoted by performance activities, which require the creation, refinement, and defense of ideas, which is what Teacher E and Teacher K observed.

As a result, the benefits obtained by the teachers are confirmation of the principles and evidence regarding authentic assessment, adding meaning to learning.

Teachers' Implementation of Authentic Assessment in EFL Classrooms

Implementation of Authentic Assessment by Teacher K (Grade 10, Expository Text)

Teacher K's classroom demonstrates how authentic assessment can be realized even when there are changes between planned and implemented tasks. Although the lesson plan suggested that students create a multimodal expository text based on graffiti-related social media posts, the actual assessment consisted of group presentations. Despite this change, the task remained authentic in that it required collaborative reasoning, explanation of ideas, and spontaneous responses to teacher questions.

The presentation activity encouraged authentic language use through unplanned explanations, clarification requests, and peer questioning. According to Wiggins (1998), spontaneous communicative demands are the foundation of authentic tasks because they simulate real communicative purposes rather than rehearsed performance. Teacher K's active facilitation, probing for deeper analysis, prompting elaboration, and guiding students to refine ideas, reflects the authenticity criteria highlighted by Gulikers et al. (2004), particularly in relating tasks to real communicative purposes, ensuring active learner participation, and maintaining contextual relevance.

Although not all students participated equally, those who did showed meaningful reasoning, idea organization, and communication skills. Furthermore, the activity promoted listening, peer evaluation, and collaborative sense-making, all of which are valued in contemporary authentic assessment frameworks. The activity also reflects institutional constraints, which are widely discussed in the literature. For example, Daud et al. (2023) warned that, while teachers may have a good conceptual understanding of authentic assessment, classroom realities such as time constraints and large class sizes affect implementation consistency.

However, Teacher K's overall execution suggests that authentic assessment principles can be maintained even when deviations from written plans occur, as long as the task encourages real-life communication, reasoning, and interaction.

Implementation of Authentic Assessment by Teacher E (Grade 12, Argumentative Text)

Teacher E's implementation demonstrates a more integrated and varied use of authentic assessment. The lesson focused on a debate about the benefits and drawbacks of e-money, a topic that is extremely relevant to modern digital life. The choice of a socially situated, real-world topic reflects O'Malley and Pierce's (1996) belief that authentic tasks must be meaningful and relevant to contexts outside of the classroom.

During the debate, students were required to formulate positions, construct logical reasoning, challenge opposing viewpoints, and respond spontaneously, all of which demonstrate performance-based assessment. These collaborative techniques support Brown and Abeywickrama's (2010) view that authentic assessment requires interactive and responsive communication.

Additionally, Teacher E expanded the assessment to include written argumentative texts. This written component required students to organize claims, reasons, and evidence in an academic writing style. This dual-mode assessment (oral and written) reflects the

multidimensional nature of authentic assessment as recommended in the literature, promoting skills that can be transferred to academic and professional contexts.

The consistency of Teacher E's stated beliefs and her classroom practices demonstrates a high level of alignment, though existing literature cautions that such alignment may not always be observed across contexts. For example, Giallousi and Pitri (2025) observe that institutional constraints, a lack of resources, and a lack of systemic support can all impede implementation. However, in this classroom, Teacher E was able to maintain coherence between theory and practice, resulting in a learning environment that prioritizes authentic communication and academic reasoning.

CONCLUSION

From the findings of this study, it is evident that Teacher E and Teacher K possess a strong and well-structured concept of authentic assessment. They present a common understanding of authentic assessment as a performance-oriented, communicative, and meaningful assessment process. They understand that authentic assessment enables critical thinking, communicative ability, confidence, and autonomy on the part of the students. In fact, their understanding is very much in line with the latest views on authentic assessment, which consider it an effective tool to facilitate deep involvement, interactional ability, and higher-order thinking skills. In total, the teachers show positive and conceptually correct perceptions regarding authentic assessment as an effective tool to assess the linguistic and cognitive development of students.

With regards to the implementation of authentic assessment, it is evident from the research that the teachers employed authentic assessment by using performance assessment techniques such as debates, presentations, role play, and multimodal projects. These were used by Teacher K, Teacher E and are found to largely comprise the best principles and elements of authentic assessment, such as realism and communicative purposes. There were slight divergences between what the teachers planned to implement and actually did, but more so on Teacher K's part; it is observable that the activities were authentic and communicative. In the case of Teacher E, it is observable that the researcher is largely able to exhibit consistency between the teacher's perceptions and behaviors. In effect, the support of authentic assessment suggests, and it is observable, that authentic assessment can be successfully embedded within an EFL context, notwithstanding the limitations and constraints. In aggregate, it is observable that the findings largely suggest meaningful use of language, critical thinking, and an opportunity to apply English communicative needs.

REFERENCES

Berliana, A. (2024). Authentic assessment in EFL classrooms. Pustaka Pendidikan.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

Brookhart, S. M. (2013). How to create and use rubrics for formative assessment and grading. ASCD.

Brown, H. D. (2004). Language assessment: Principles and classroom practices. Pearson Education.

Brown, H. D., & Abeywickrama, P. (2010). Language assessment: Principles and classroom practices (2nd ed.). Pearson Education.

Creswell, J. W. (2013). Qualitative inquiry and research design: Choosing among five approaches (3rd ed.). SAGE Publications.

Darling-Hammond, L., & Adamson, F. (2014). Beyond the bubble test: How performance assessments support 21st century learning. Wiley.

Darling-Hammond, L., & Adamson, F. (2014). Beyond the bubble test: How performance assessments support 21st century learning. Wiley.

Daud, A., Azhar, F., Isjoni, I., & Chowdhury, R. (2023). Complexities of authentic assessment implementation in English learning at rural areas-based high schools. *International Journal of Language Education*, 7(3), 494-510. <https://doi.org/10.26858/ijole.v7i3.41345>

Duke, N. K., & Bennett-Armistead, S. (2003). Reading and writing informational text in the primary grades. Scholastic.

Gulikers, J., Bastiaens, T., & Kirschner, P. (2004). A five-dimensional framework for authentic assessment. *Educational Technology Research and Development*, 52(3), 67-86. <https://doi.org/10.1007/BF02504676>

Gulikers, J., Bastiaens, T., & Kirschner, P. (2004). A five-dimensional framework for authentic assessment. *Educational Technology Research and Development*, 52(3), 67-86.

Guthrie, J. T., & Wigfield, A. (2000). Engagement and motivation in reading. In M. L. Kamil et al. (Eds.), *Handbook of reading research* (Vol. 3, pp. 403-422). Lawrence Erlbaum.

Habibi, A., & Yusuf, Y. Q. (2021). Teachers' attitudes toward authentic assessment in Indonesian EFL classrooms. *Teaching English as a Second Language Quarterly*, 41(1), 1-20.

Harahap, S. A., & Fauzana, R. (2025). The Analysis of Teacher Talk And Learner Talk in The Classroom Interaction: A Descriptive Study At The Eight Grade Of Junior High School. *JEALT: Journal of English and Arabic Language Teachel*. <https://ejurnal.uin-suska.ac.id/index.php/jealt/article/view/37836>

Harlen, W., & James, M. (1997). Assessment and learning: Differences and relationships between formative and summative assessment. *Assessment in Education*, 4(3), 365-379. <https://doi.org/10.1080/0969594970040304>

Ismail, S. M., Al-Adwan, A. S., Albelbisi, N. A., Al-Khasawneh, M. A., Al-Adwan, A. M., & Alsoud, A. R. (2023). Promoting self-regulated learning, autonomy, and self-efficacy through authentic assessments in English language learning. *Language Testing in Asia*, 13(1), 1-16. <https://doi.org/10.1186/s40468-023-00239-z>

Khoirunnisa, A., & Wulandari, D. (2022). Competence-based assessment to measure EFL students' communication and problem-solving skills. *Journal of English Language Teaching and Linguistics*, 7(2), 233-247. <https://doi.org/10.21462/jeltl.v7i2.747>

Khoirunnisa, W., & Wulandari, S. (2022). Competence-based assessment practices in EFL contexts. *Indonesian Journal of Applied Linguistics*, 12(2), 321-332.

Kuhn, D. (1991). *The skills of argument*. Cambridge University Press.

Lisdawati, L., & Umam, A. (2022). Promoting HOTS and critical thinking to English students of higher education through authentic assessment. *Erudita: Journal of English Language Teaching*, 2(1), 15-25. <https://doi.org/10.28918/erudita.v2i1.686>

Lisdawati, S., & Umam, A. (2022). Enhancing higher-order thinking skills through debate activities in EFL learning. *ELT Worldwide*, 9(1), 20-32. <https://doi.org/10.26858/eltww.v9i1.34839>

Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances. *Journal of Educational Measurement*, 32(3), 189-203.

Miles, M. B., & Huberman, A. M. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Nugroho, A., & Mutiaraningrum, I. (2020). An authentic and performance-based assessment to promote students' higher-order thinking skills in EFL speaking. *LETS Journal: Linguistics*

and English Teaching Studies, 2(1), 1-12.

Nugroho, A., & Mutiaraningrum, I. (2020). Authentic assessment and students' higher-order thinking skills in EFL writing. *Teaching English as a Foreign Language Journal*, 11(1), 1-15.

Nussbaum, E. M., & Schraw, G. (2007). Promoting argument-counterargument integration in students. *Contemporary Educational Psychology*, 32(3), 385-398. <https://doi.org/10.1016/j.cedpsych.2006.06.001>

O'Malley, J. M., & Pierce, L. V. (1996). *Authentic assessment for English language learners: Practical approaches for teachers*. Addison-Wesley.

Papanastasiou, E. C., Giallousi, M., & Pitri, E. (2025). Re-Introducing Authentic Assessment in Classroom Assessment Courses: Finding Its Place in the 21st Century. *Education Sciences*, 15(11), 1564. <https://doi.org/10.3390/educsci15111564>

Partnership for 21st Century Learning. (2019). Framework for 21st century learning. Retrieved from <https://www.battelleforkids.org/networks/p21>

Putra, D., & Abdullah, A. (2020). Enhancing learner motivation through authentic tasks in EFL classrooms. *Asian EFL Journal*, 27(4), 112-130.

Rahmawati, N., & Rukmini, D. (2021). The effect of peer and self-assessment on students' metacognition in EFL learning. *LELT Journal*, 6(1), 11-22.

Sari, F., & Prasetyo, D. (2021). 21st-century task design and its impact on EFL learners' communication skills. *Journal of English Education and Teaching*, 5(2), 134-145.

Setiawan, A. (2022). Debate-based assessment to improve students' argumentation skills. *Journal of Applied Linguistics and Literacy*, 6(3), 789-804.

Sundari, A., & Sabarun. (2023). The Implementation of Authentic Assessment in English Language Teaching. *Jurnal Ilmu Pendidikan Nasional*, 1(2), 83-88. <https://doi.org/10.59435/jipnas.v1i2.70>

Sung, Y., Chang, K., & Liu, T. (2020). The effects of technology-assisted assessment on feedback quality and scoring consistency. *Computers & Education*, 150, 103-857.

Vlachopoulos, D. (2024). A systematic literature review on authentic assessment in higher education: Best practices for the development of 21st-century skills and policy considerations. *Studies in Educational Evaluation*, Article 101425. <https://doi.org/10.1016/j.stueduc.2024.101425>

Widodo, H. (2020). Project-based communicative activities in strengthening collaboration and digital literacy. *TESOL International Journal*, 15(4), 98-112.

Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance*. Jossey-Bass.

Yusuf, M., & Widyaningrum, R. (2021). Rubric-based authentic assessment to improve fairness and transparency. *IJELT: Indonesian Journal of English Language Teaching*, 16(2), 93-108.