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MULTIMODAL PEDAGOGY, LEARNER AUTONOMY, AND COMMUNICATIVE COMPETENCE IN FOREIGN LANGUAGE CLASSROOMS

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Abstract: This study explored how multimodal pedagogy, learner autonomy, and communicative competence were manifested in English and German foreign language classrooms at an Indonesian university. Adopting a qualitative classroom-based design supported by descriptive questionnaire data, the study involved 100 undergraduate students from English and German Language Education Programs. Data were collected through classroom observations, a 24-item questionnaire, and semi-structured interviews with ten students. Qualitative data were examined using thematic analysis, while questionnaire responses were summarized descriptively. The findings revealed that students generally perceived multimodal learning positively, particularly in supporting meaning-making through visual, auditory, textual, and digital resources. Positive questionnaire responses were higher for multimodal pedagogy (79.25%) and learner autonomy (72.13%) than for communicative competence (51.50%). Interview findings indicated that students exercised autonomy by selecting learning resources, reviewing materials independently, and seeking additional guidance when necessary. Although multimodal activities supported students' preparation and expression of ideas, several participants continued to experience difficulties with spontaneous communication. These findings suggest that multimodal pedagogy provides opportunities for meaning-making and autonomous learning but does not necessarily produce equivalent confidence across communicative situations. The study highlights the importance of purposeful task design, instructional scaffolding, and opportunities for spontaneous interaction in foreign language teacher education.
Keywords: *communicative competence; foreign language teacher education; learner autonomy; multimodal pedagogy; multimodal meaning-making.*

INTRODUCTION

The growing integration of digital technologies into education has reshaped the ways languages are taught and learned, prompting educators to reconsider how communicative competence is developed in contemporary classrooms. While linguistic accuracy remains an important component of language learning, successful communication increasingly requires learners to construct and interpret meaning through linguistic, visual, auditory, spatial, and gestural resources. From a social semiotic perspective, communication is inherently multimodal because meaning emerges through the coordinated use of multiple semiotic resources rather than through language alone (Guo, 2023; Jewitt et al., 2016; Kress, 2010; Mootoosamy & Aryadoust, 2024; Rahmanu & Molnár, 2024). This perspective has become increasingly relevant in digitally mediated foreign language education, where learners encounter and produce meaning through combinations of spoken and written language, images, audio, video, gesture, and other digital resources. Recent scholarship further indicates that multimodality can shape not only how language is represented but also how learners engage affectively with foreign language learning experiences (Guo, 2023; Ho, 2024).

Multimodal pedagogy extends this perspective into classroom practice by creating opportunities

for learners to interpret and communicate meaning through different modes, supported by purposeful instructional design and multimodal learning activities (Fan, 2025; Jiang & Hafner, 2024; Lim, 2025). Digital presentations, video projects, multimodal compositions, virtual interactions, and other technology-mediated tasks require learners to make decisions about how linguistic and non-linguistic resources work together for particular communicative purposes. From a teaching perspective, these activities also require pedagogical decisions about how multimodal resources are selected, organized, and integrated into language-learning tasks (Cao & Mao, 2025). Evidence from higher education increasingly supports the pedagogical value of such practices across diverse language-learning contexts (Di Zhang & Yu, 2025; Rahmanu & Molnár, 2024; Y. Zhang et al., 2024). A systematic review of 34 studies conducted between 2013 and 2024 found that multimodal approaches in higher education have been implemented across diverse English-learning contexts and have contributed to the development of vocabulary, writing, speaking, and broader language proficiency through combinations of linguistic, visual, auditory, gestural, and digital resources (Rahmanu & Molnár, 2024). In this study, multimodal meaning-making refers to the ways students use and interpret different resources, such as spoken language, written text, images, audio, video, and gestures, to understand learning materials and communicate ideas during classroom activities. This includes, for example, explaining information with the support of visual materials, drawing on video content during presentations, and combining spoken explanations with written or visual information. The focus is therefore on how these resources contribute to classroom communication, rather than on the use of digital technology alone (Jiang & Hafner, 2024).

Communicative competence provides an important perspective for examining language learning in multimodal classrooms. Hymes (1972) argued that knowing a language involves more than grammatical accuracy; learners must also understand how to use language appropriately in different social situations. Building on this perspective, the present study considers communicative competence in relation to students' classroom communication, including their ability to express ideas, respond to others, use appropriate vocabulary, and participate in interactions in the target language. These aspects are examined through classroom observations and students' accounts of their learning experiences rather than through standardized proficiency testing.

Multimodal pedagogy may create additional opportunities for such communication by allowing learners to draw on visual, auditory, gestural, and linguistic resources. Mootoosamy and Aryadoust (2024) highlighted the expanding conceptualization of communicative competence to encompass multimodal and intercultural dimensions, while Prihantoro et al. (2022) and Abdullah et al. (2022) examined how multiliteracies-oriented instruction can support different dimensions of language use. More recently, Lai (2024) investigated the relationship between multimodal task design and oral communicative competence, indicating that communicative development may vary across different aspects of performance. These studies suggest that multimodal resources can support communication, although their presence does not, by itself, demonstrate improvement in students' language proficiency.

The relationship between multimodal learning and communicative competence nevertheless requires careful interpretation. Students may find it easier to communicate when they can prepare their ideas and use visual or written materials for support, but this does not necessarily mean that they feel equally confident during less structured classroom interactions. Research on digital multimodal composing has raised similar questions about the relationship between multimodal learning experiences and different aspects of language development (Jiang & Hafner, 2024). This distinction is relevant to the present study because students' perceptions of their communicative abilities may differ from the communication practices observed during classroom activities.

A second dimension closely connected with multimodal learning is learner autonomy. Learner autonomy has traditionally been associated with learners' capacity to take responsibility for their learning by exercising control over goals, strategies, learning processes, and evaluation (Benson, 2007). Digital and multiliteracies-based learning environments can provide opportunities for students to exercise autonomy through active participation, resource selection, and decisions about their learning processes (Dewi et al., 2025; Hauck et al., 2021). Yet the availability of digital resources alone does not necessarily generate autonomous learning. In multimodal environments, autonomy also involves learners' informed decisions about which semiotic and

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technological resources are appropriate for particular communicative purposes. Recent research on digital multimodal composing also highlights the importance of developing learners' critical awareness of emerging digital resources, including their ability to evaluate how such resources contribute to meaning-making (Liu et al., 2025). Hauck et al. (2021) therefore conceptualize multimodal literacy and language learner autonomy as closely interconnected, emphasizing learners' informed use of available modes and their affordances for meaning-making. This relationship is particularly relevant to project-based multimodal learning, in which learners may choose digital tools, distribute responsibilities, organize content, revise products, and evaluate how effectively their communicative intentions are represented (Mohammadi Zenouzagh et al., 2023; Oakley et al., 2023; Xie & Jiang, 2025).

Recent empirical evidence further demonstrates the complexity of this relationship. In a multimodal digital text exchange project, Oakley et al. (2023) found that opportunities for choice in multimodal production supported autonomy, personalization, collaboration, language practice, and digital literacy. However, multimodal environments do not invariably produce stronger autonomy. Mohammadi Zenouzagh et al. (2023), for instance, reported different patterns of autonomy and engagement across text-based and multimodal computer-mediated environments, suggesting that the pedagogical effects of multimodality depend on the nature of tasks and learning conditions rather than on modality alone. More recently, Xie and Jiang (2025) showed that authentic tasks, collaborative composing, and multimodal remixing could promote learners' willingness to engage, ability to compose, and freedom to experiment, thereby supporting different dimensions of second-language writing autonomy. Taken together, these studies shift attention from whether digital multimodality is beneficial to the more pedagogically significant question of how particular multimodal learning experiences create—or constrain—opportunities for autonomous language use. These findings suggest that learner autonomy in multimodal environments depends on opportunities for meaningful learning decisions, engagement with digital resources, and appropriate instructional support. Faridah et al. (2025) further demonstrated the relevance of integrating multimodal pedagogy with flipped classroom activities to support EFL students' speaking development and learner autonomy. The educational value of multimodality therefore lies not simply in the availability of digital tools but in how students use these resources within purposeful learning activities.

Despite growing interest in multimodal approaches to foreign language education, several questions remain insufficiently addressed. Existing studies have examined multimodal learning in relation to language development (Rahmanu & Molnár, 2024) oral communicative competence (Lai, 2024), learner autonomy in digital composing (Xie & Jiang, 2025), and the implementation of multimodal pedagogy in tertiary education (Y. Zhang et al., 2024). However, these areas have often been investigated separately, leaving a need for classroom-based accounts of how multimodal meaning-making, autonomous learning, and communicative experiences intersect in everyday instructional practices.

This gap is particularly relevant to foreign language teacher education, where students are expected to develop both language proficiency and the pedagogical awareness needed to use multimodal resources in their future teaching. Research by Ponzio and Deroo (2023) illustrates how multimodal learning tasks can support teachers' understanding of multilingual meaning-making and expand their pedagogical perspectives. Evidence from German language education further illustrates how multimedia-supported instruction can integrate attention to linguistic form and meaning within university-level language learning (Vyatkina, 2024). Examining English and German language education within the same institutional context offers an opportunity to explore how students engage with multimodal instruction across two foreign language programs. Rather than assuming that access to multiple media necessarily strengthens communicative competence, the present study considers how students experience these resources, exercise autonomy, and perceive their communication-related opportunities and difficulties.

These gaps are particularly relevant in the Indonesian higher education context. Foreign language teacher education increasingly operates within digitally mediated learning environments, yet multimodal practices cannot be assumed to influence all learners in the same way. Understanding how students use multimodal resources, exercise autonomy, and demonstrate communicative competence therefore requires attention to their actual classroom participation and learning products rather than relying exclusively on perceptions of technology use. Examining both English and German language education is

additionally valuable because it extends the discussion beyond a single-language EFL setting and allows multimodal pedagogy to be considered within the broader context of foreign language teacher education.

Accordingly, this study examines multimodal pedagogy as a classroom practice in which linguistic, visual, auditory, gestural, and digital resources contribute to students' meaning-making experiences. It focuses on how students engage with these resources, demonstrate learner autonomy, and experience opportunities and challenges in foreign language communication. Drawing on classroom observations, questionnaire responses, and semi-structured interviews from English and German language teacher education programs, the study brings these three dimensions together within a qualitative classroom-based framework. Its contribution lies in providing a contextualized understanding of multimodal learning practices in Indonesian foreign language teacher education, including the ways instructional support and students' own learning decisions shape their classroom experiences.

Guided by these considerations, the study addresses the following research questions: (1) How is multimodal pedagogy manifested in students' meaning-making practices in English and German foreign language classrooms? (2) How do students demonstrate learner autonomy when engaging with multimodal learning activities and resources? (3) How do students perceive the contribution of multimodal learning to their communicative competence, and what communication-related practices and challenges are evident in classroom activities?

METHOD

This study adopted a qualitative classroom-based research design, supported by descriptive questionnaire data, to examine multimodal pedagogy, learner autonomy, and communicative competence in foreign language classrooms. The primary focus was on students' classroom experiences, their engagement with multimodal resources, and the ways they exercised autonomy and participated in communication during regular learning activities. Classroom observations and semi-structured interviews provided the main qualitative evidence, while questionnaire responses offered a descriptive account of students' perceptions across the three research dimensions.

The questionnaire was used to complement and contextualize the qualitative findings, not to test hypotheses, estimate relationships between variables, or establish causal effects. Although numerical summaries were reported, the study's research questions, analytical emphasis, and interpretation remained qualitative. This approach allowed classroom practices and students' experiences to be examined alongside broader patterns in their reported perceptions (Creswell & Poth, 2018; Hennink et al., 2020).

The study was conducted during the even semester of the 2024–2025 academic year in two foreign language teacher education programs at a public university in Indonesia: the English Language Education Study Program and the German Language Education Study Program. Both programs had incorporated multimodal learning activities and digital technologies into foreign language instruction, making them relevant settings for examining the relationship among multimodal meaning-making, learner autonomy, and communicative competence.

The study involved 100 undergraduate students enrolled in the two programs: 50 from German Language Education and 50 from English Language Education. Participants were selected purposively because they had direct experience with multimodal learning activities in their regular foreign language classes. These activities involved the use of digital presentations, videos, images, audio materials, and written texts to support learning and classroom communication. The selection of participants was intended to provide accounts of multimodal learning practices across both programs rather than to obtain a statistically representative sample.

Data were obtained from three complementary sources: classroom observations, questionnaire responses, and semi-structured interviews. Three instruments were used to collect these data: an observation checklist, a 24-item questionnaire, and a semi-structured interview guide. Each instrument addressed the study's three research dimensions: multimodal pedagogy, learner autonomy, and communicative competence. Classroom observations documented learning activities and students' participation, the questionnaire summarized students' perceptions, and interviews provided more detailed accounts of their experiences. Evidence from these sources was examined together to identify similarities, differences, and contextual explanations across the findings.

Classroom observations were conducted across six teaching sessions, with three sessions in the English Language Education Program and three in the German Language Education Program. The

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observations focused on regular learning activities involving multimodal resources, including spoken and written language, images, audio, video, gestures, and digital presentation materials.

An observation checklist was used to document three areas: the implementation of multimodal pedagogy, student engagement and learner autonomy, and classroom communication. The first area concerned how different resources were incorporated into teaching and learning activities. The second examined students' participation, initiative, use of learning resources, and need for instructional guidance. The third focused on observable communication practices, including students' attempts to express ideas, respond during classroom activities, and use linguistic and non-linguistic resources to support communication.

The checklist was completed once per teaching session. Its purpose was to guide the documentation of classroom practices rather than to provide a direct measure of students' language proficiency. The observation checklist comprised 15 items distributed equally across three dimensions: implementation of multimodal pedagogy, student engagement and learner autonomy, and classroom communication. Observations were conducted across six teaching sessions, with one checklist completed per session. The observation procedure was intended to document classroom practices across these dimensions.

A theoretically informed 24-item questionnaire was administered to 100 participants following the multimodal learning activities. Its three dimensions—multimodal pedagogy, learner autonomy, and perceived communicative competence—were aligned with the study's conceptual framework, with eight items per dimension. Responses were recorded on a five-point Likert-type scale from Strongly Disagree (1) to Strongly Agree (5). Following Sönning's (2024) methodological guidance, responses were treated as ordinal data and summarized using frequencies and percentages.

The questionnaire was used to describe students' perceptions rather than to measure changes in language proficiency or establish relationships between variables. Responses were summarized descriptively across the three research dimensions using frequencies and percentages. The aggregated distributions provided an overview of students' perceptions of multimodal pedagogy, learner autonomy, and communicative competence. These findings were interpreted alongside interview accounts to identify converging and contrasting experiences.

Internal consistency was examined using Cronbach's alpha for the 100 participants (Taber, 2018). The coefficients were .912 for multimodal pedagogy, .871 for learner autonomy, and .877 for perceived communicative competence, with an overall coefficient of .932. These values indicated satisfactory internal consistency but were not interpreted as evidence of construct validity or objectively assessed language proficiency. Questionnaire responses were analyzed descriptively to contextualize the qualitative findings.

Semi-structured interviews were conducted with ten students, comprising five participants from the English Language Education Program (P1–P5) and five from the German Language Education Program (P6–P10). The interviews lasted approximately 20–30 minutes, depending on the length of participants' responses. A semi-structured interview guide consisting of twelve open-ended questions was used to explore students' experiences with multimodal learning resources, independent learning practices, perceived communicative competence, and challenges encountered in foreign language learning. The interviews also provided opportunities to clarify participants' experiences of classroom activities involving videos, audio materials, images, written texts, and other digital resources.

The qualitative analysis focused on semi-structured interview responses. Two members of the research team conducted the classroom observations and participated in reviewing the qualitative material. Interview notes were recorded during the conversations and retained for subsequent analysis. The analysis was guided by Braun and Clarke's (2021) thematic approach, with attention to students' experiences of multimodal learning, learner autonomy, and classroom communication.

The analysis was theoretically guided by the three research dimensions while remaining attentive to patterns emerging from participants' accounts. Meaningful statements were identified and assigned initial codes, which were compared and grouped into broader patterns of meaning. Theme development considered both converging and contrasting experiences, particularly students' dependence on lecturer guidance and difficulties with spontaneous communication. The resulting themes were refined to represent participants' experiences rather than simply reproduce the questionnaire dimensions.

Questionnaire responses were analyzed descriptively and considered separately from the qualitative coding. Frequencies and percentages were calculated for each of the three research dimensions to summarize students' reported perceptions. These distributions were interpreted alongside interview accounts to identify converging and contrasting experiences. Classroom observations provided contextual documentation of learning activities, but numerical observation ratings were excluded from the reported findings because they could not be reliably verified. No inferential statistical tests were conducted.

The trustworthiness of the findings was supported through cross-checking between observers, clarification with participants, and comparison across data sources. Two members of the research team conducted classroom observations and reviewed their observation records after the sessions. They compared their observations and discussed their interpretations to develop a shared understanding of the classroom practices documented during data collection.

Interview accounts were used to provide participants' perspectives on the learning practices documented through classroom observations. These accounts helped contextualize students' engagement with multimodal resources, their independent learning decisions, and the communication challenges they experienced. Where the available evidence supported different interpretations, these differences were considered in developing the findings rather than being treated as evidence of uniform student experiences.

Triangulation involved comparing semi-structured interview accounts and questionnaire responses across the three research dimensions. The researchers considered both converging and contrasting evidence when interpreting the findings. For example, positive questionnaire responses concerning multimodal learning were examined alongside interview accounts indicating that some students continued to require lecturer guidance or experienced difficulties with spontaneous communication. This comparison supported a contextualized interpretation of learner autonomy and communicative competence without assuming that positive perceptions necessarily reflected independent learning or improved language proficiency.

The researchers' teaching roles were also taken into account. Three members of the team taught in the German Language Education Program, while one taught in the English Language Education Program. Their familiarity with the classroom contexts supported interpretation, although their positions as lecturers could also influence students' responses and the researchers' understanding of classroom events. This relationship was considered when interpreting and reporting the findings.

Participants were informed about the purpose of the study, and oral consent was obtained before data collection. Participation was voluntary, and students' identities were protected in the reporting of the findings. Interview excerpts and other participant-specific information were presented without personal names.

The research was conducted in programs where members of the research team also held teaching responsibilities. This relationship was recognized as a potential source of unequal authority between researchers and student participants. The interpretation and reporting of the findings therefore took account of this institutional context, particularly when considering students' accounts of their classroom experiences.

RESULTS AND DISCUSSION

Questionnaire findings

The questionnaire provided a descriptive overview of students' perceptions across three dimensions: multimodal pedagogy, learner autonomy, and communicative competence. The instrument comprised 24 items completed by 100 students, with eight items representing each dimension. Consequently, each dimension contained 800 item responses (100 participants × 8 items). These figures represent aggregated item responses rather than 800 individual respondents. As supplementary evidence within the qualitative research design, the questionnaire findings were interpreted descriptively alongside classroom observations and semi-structured interviews.

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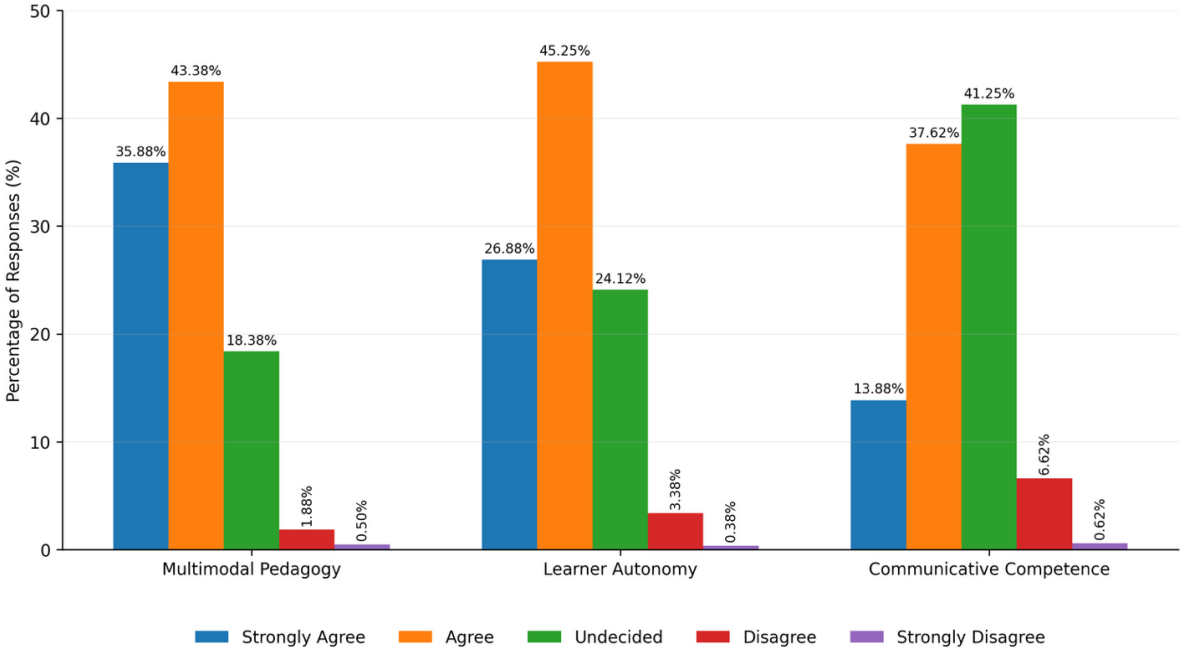


Figure 1. *Distribution of students' questionnaire responses on multimodal pedagogy, learner autonomy, and communicative competence.*

Note: Each dimension comprises 800 item responses from 100 participants answering eight questionnaire items. Frequencies represent aggregated item responses rather than the number of individual participants.

The most favorable response pattern was found in the multimodal pedagogy dimension. Of the 800 item responses, 287 (35.88%) were Strongly Agree and 347 (43.38%) were Agree, representing a combined positive response of 79.25%. Meanwhile, 147 responses (18.38%) were Undecided, 15 (1.88%) were Disagree, and four (0.50%) were Strongly Disagree. This distribution suggests that students generally perceived the integration of visual, auditory, textual, and digital resources positively.

Learner autonomy also received predominantly positive responses. Of the 800 item responses, 215 (26.88%) were Strongly Agree and 362 (45.25%) were Agree, accounting for 72.13% combined positive responses. Another 193 responses (24.13%) were Undecided, while 27 (3.38%) were Disagree and three (0.38%) were Strongly Disagree. The relatively substantial proportion of undecided responses suggests that students differed in their perceptions of their ability to make independent learning decisions.

The communicative competence dimension showed a more cautious response pattern. Of the 800 item responses, 111 (13.88%) were Strongly Agree and 301 (37.63%) were Agree, resulting in 51.50% combined positive responses. Undecided responses accounted for 330 (41.25%), while 53 (6.63%) were Disagree and five (0.63%) were Strongly Disagree. The comparatively high proportion of undecided responses indicates uncertainty among students regarding their communicative competence.

Taken together, these findings reveal a notable difference between students' positive perceptions of multimodal pedagogy (79.25%) and their more reserved perceptions of communicative competence (51.50%). This difference suggests that favorable experiences with multimodal learning resources should not automatically be interpreted as evidence of improved communicative competence. The questionnaire measured students' self-reported perceptions rather than objectively assessed language proficiency. Interview accounts were therefore used to contextualize these patterns, particularly students' experiences of prepared communication, spontaneous speaking, and their continued need for instructional guidance.

Classroom observations findings

Classroom observations were conducted across six teaching sessions using a 15-item checklist addressing multimodal pedagogy, student engagement and learner autonomy, and classroom communication. The observations formed part of the study's classroom-based data collection. However, the observation ratings were not included in the reported numerical findings. The Results section therefore focuses on the

questionnaire distributions and the interview themes for which supporting data were available.

Interview findings

Semi-structured interviews with ten participants were analyzed to explore students' experiences of multimodal learning, learner autonomy, and classroom communication. The thematic analysis identified three interconnected themes: (1) Constructing Meaning through Multimodal Resources, (2) Exercising Autonomy through Learning Decisions, and (3) Supporting Communication through Multimodal Learning. These themes reflect participants' accounts of how multimodal resources supported their learning experiences, independent learning practices, and communication in foreign language classrooms.

Table 1. *Example of the coding process*

Student Statement (Translated into English)	Initial Code	Category	Theme
"I find it easier to understand the material because I can see and hear examples of English being used directly." (P1)	Learning through visual and auditory examples	Multimodal meaning-making	Constructing Meaning through Multimodal Resources
"I can learn anytime and anywhere without always waiting for explanations from the lecturer." (P1)	Learning independently through digital resources	Self-directed learning	Exercising Autonomy through Learning Decisions
"I feel more confident when presenting or making videos, but I still get nervous when I have to speak spontaneously." (P10)	Confidence in prepared communication; anxiety in spontaneous speaking	Communicative confidence and limitations	Supporting Communication through Multimodal Learning

Note. Student statements were translated from Indonesian into English. Participant codes (P1–P10) are used to protect participants' identities. The table illustrates examples of the coding process rather than the complete thematic analysis.

Theme 1: Constructing meaning through multimodal resources

The first theme concerns students' experiences of using different modes to understand and construct meaning in foreign language learning. Participants described how videos, audio recordings, images, and written materials helped them engage with course content. Rather than relying exclusively on lecturers' verbal explanations, students could access examples of language use through several complementary resources. It was explained by P1:

> I find it easier to understand the material because I can see and hear examples of English being used directly. Learning also feels less monotonous. (P1, translated from Indonesian)

P1 further identified video and audio as particularly helpful because videos illustrated English use in everyday conversations, while audio recordings provided opportunities to practise listening, pronunciation, and intonation. These accounts suggest that multimodal resources supported comprehension by making language examples more accessible and providing opportunities for repeated engagement with learning materials.

Nevertheless, participants' accounts should not be interpreted as evidence that all multimodal resources were equally useful in every learning situation. The findings indicate that students valued different resources for different learning purposes, particularly when visual and auditory examples helped clarify unfamiliar language content.

Theme 2: Exercising autonomy through learning decisions

The second theme highlights how students exercised learner autonomy by selecting learning resources, seeking additional explanations, and making decisions about their learning activities. Interview responses indicated that digital resources enabled students to continue learning beyond scheduled classroom sessions and address difficulties according to their individual needs. It was also explained by P1:

> With digital media, I can learn anytime and anywhere without always waiting for explanations from the lecturer. If there is

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> something I do not understand, I can look for explanations on YouTube or Google. (P1, translated from Indonesian)

Other participants described using YouTube, online dictionaries, language-learning applications, and digital materials to practise pronunciation, expand vocabulary, and review unfamiliar content. These accounts suggest that learner autonomy involved making decisions about when, how, and with which resources to learn.

However, independent learning was not equally developed among participants. P3 acknowledged that digital resources were helpful but that unfamiliar applications sometimes required tutorials or assistance from peers. Similarly, P7 indicated that further explanations from lecturers were still necessary in certain situations. These contrasting accounts suggest that learner autonomy was developing rather than fully established. Students demonstrated initiative in accessing learning resources while continuing to rely on guidance when needed.

Theme 3: Supporting communication through multimodal learning

The third theme concerns how students perceived the contribution of multimodal learning to their communicative competence, particularly their confidence in speaking and their ability to communicate in prepared and spontaneous situations. Participants from both the English and German Language Education Programs reported that videos, audio materials, presentations, and speaking activities provided opportunities to practise language use. However, their accounts also revealed a distinction between confidence during prepared tasks and difficulties when communicating spontaneously. P4, an English Language Education student, explained:

When speaking through a prepared video, I feel more confident because I can write down what I want to say and practise before recording. If I make a mistake, I can record it again. However, when the lecturer suddenly asks me a question in English, I still feel nervous. (P4, translated from Indonesian)

A similar experience was reported by P10 from the German Language Education Program:

> Yes, especially during presentations or when making videos. However, when I have to speak spontaneously, I still often feel nervous. (P10, translated from Indonesian)

These accounts suggest that multimodal learning provided a supportive environment for preparing and practising communication, but confidence in planned activities did not necessarily extend to spontaneous interaction. Participants also identified vocabulary retrieval, grammatical accuracy, pronunciation, and sentence construction as continuing challenges. P2, for example, described difficulty finding appropriate English words when responding without preparation, while P8 reported difficulties with German grammar and article use.

The findings therefore indicate that multimodal resources were perceived as valuable for supporting communicative practice, particularly when students had opportunities to prepare, rehearse, and revise their spoken performance. Nevertheless, the persistence of difficulties in spontaneous communication highlights the need to complement multimodal tasks with direct interaction, discussions, and unscripted speaking activities.

Multimodal meaning-making and communicative competence

Evidence from the questionnaire and interviews suggests that multimodal learning provided opportunities for students to construct meaning through visual, auditory, written, and spoken resources. Interview accounts from both English and German language learners indicated that these resources helped them understand language use in context, particularly through video demonstrations, audio recordings, and accompanying texts. This pattern remains consistent with the social semiotic perspective that meaning emerges through the coordinated orchestration of multiple semiotic resources rather than through language alone (Jewitt et al., 2016; Kress, 2010; Satar et al., 2023).

Recent research, however, provides a more classroom-oriented understanding of this process. Rahmanu and Molnár's (2024) systematic review shows that multimodal language learning in higher education has been associated with development across several areas of language learning, while Ho (2024) found that engagement with digital multimodal composing encouraged university students to become more aware of both the possibilities and constraints of different resources for meaning-making. Guo (2023) further draws attention to the affective dimension of multimodality, suggesting that the ways learners engage with multiple modes cannot be separated entirely from their emotional and experiential responses to language learning. The present findings extend this discussion by showing how

students used these resources in actual foreign language classroom tasks while simultaneously making decisions about how their messages should be designed and communicated.

The present findings add an important qualification to these generally positive accounts. Although questionnaire responses indicated favorable perceptions of multimodal pedagogy, students expressed greater uncertainty regarding communicative competence. This contrast was also reflected in the interviews. Participants from both language programs reported greater confidence when preparing presentations or recording videos, yet several continued to experience difficulties during spontaneous interaction. P4, for example, described feeling more confident when able to rehearse and rerecord spoken messages, whereas P10 acknowledged continued nervousness when speaking without preparation.

This distinction suggests that multimodal learning may provide supportive conditions for communicative practice without necessarily producing equivalent confidence across different speaking situations. Prepared tasks allow learners to organize ideas, rehearse language, and use visual or auditory resources, while spontaneous interaction requires more immediate linguistic responses. Rahmatillah et al. (2025), who compared video-recorded and in-class oral presentations among Indonesian EFL students, similarly highlighted the importance of distinguishing between different presentation modes when evaluating students' communicative performance. The findings therefore caution against equating students' perceived success in prepared multimodal activities with demonstrated communicative competence. Rather, multimodal pedagogy should be complemented by opportunities for unscripted discussion, question-and-answer activities, and direct interaction. Research on students' multimodal composing processes also reinforces the need to consider how learners organize content and coordinate different modes, rather than assuming that multimodal production alone ensures successful learning outcomes (Xia & Li, 2026).

These findings can be understood in relation to broader conceptualizations of communicative competence. Hymes (1972) emphasized that successful communication involves more than grammatical knowledge, while Coccetta (2018) highlighted the role of multiple semiotic resources in multimodal communicative competence. In the Indonesian higher-education context, Prihantoro et al. (2022) similarly demonstrated how multiliteracies pedagogy can address linguistic, sociocultural, interactional, discourse, and multimodal dimensions of communication. The present findings extend this discussion by showing that students perceived multimodal resources as helpful for preparing and expressing ideas, although they continued to experience difficulties when communicating without preparation. This interpretation is consistent with Abdullah et al. (2022) and Mootoosamy and Aryadoust (2024), who discussed the integration of multiple semiotic resources in communicative learning.

An important pedagogical implication concerns the relationship between multimodal support and opportunities for spontaneous interaction. Although preparing presentations and recording videos allowed students to rehearse and organize their messages, the interview findings suggest that these experiences did not necessarily eliminate difficulties with vocabulary retrieval, grammatical accuracy, and immediate responses. Effective multimodal learning therefore depends not only on access to digital resources but also on purposeful task design and instructional support (Di Zhang & Yu, 2025; Jiang & Hafner, 2024; Y. Zhang et al., 2024). Integrating multimodal activities with discussions, spontaneous question-and-answer sessions, and other interactive speaking tasks may help students transfer their prepared communication experiences to less predictable communicative situations.

Multimodal task design and learner autonomy

A second major finding concerns how students exercised learner autonomy through their decisions about learning resources, digital tools, and independent learning activities. The interview findings revealed that participants from both language programs used online resources to review course materials, practise language skills, and seek explanations beyond classroom instruction. P1, for example, described using digital resources to study without always waiting for lecturer explanations, while P3 acknowledged occasionally needing tutorials or assistance when using unfamiliar applications. These experiences are consistent with Benson's (2007) conceptualization of learner autonomy, which emphasizes learners' capacity to exercise control over their learning processes. These findings also align with Tomasouw and Marantika (2020), who emphasized the role of learner autonomy in encouraging students to take greater responsibility for their learning. However, the present findings suggest that autonomy should

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not be equated with complete independence from instructional support. Rather, it involves learners making purposeful decisions while recognizing when additional guidance is necessary.

Recent studies provide useful points of comparison. Oakley et al. (2023) reported that opportunities for choice in multimodal digital-text projects supported learner autonomy, personalization, collaboration, language practice, and digital literacy. Similarly, Xie and Jiang (2025) showed how authentic tasks and collaborative multimodal composing created opportunities for learners to make decisions about their learning. The present findings are consistent with these perspectives, although the evidence comes primarily from students' reported learning experiences rather than a separate analysis of their completed digital projects. Interview participants described selecting online resources, reviewing materials independently, and seeking additional explanations when needed. P1, for example, used digital resources to revisit unfamiliar content, while P3 emphasized the importance of evaluating online information and seeking assistance with unfamiliar applications. These accounts suggest that learner autonomy involved purposeful choices about learning resources and strategies rather than complete independence from lecturers or peers.

Nevertheless, learner autonomy was not demonstrated uniformly. The interview findings revealed that while students valued the flexibility of digital resources, some continued to require guidance when selecting reliable information, using unfamiliar applications, or managing learning activities. P3, for example, described consulting tutorials or asking peers for assistance when encountering difficulties with video-editing applications. Similarly, P6 acknowledged that digital resources did not make learning entirely independent because further explanations from lecturers were sometimes necessary. These experiences reinforce the view that access to multimodal technologies does not automatically produce autonomous learning. A recent systematic review of AI literacy in digital multimodal composing similarly emphasizes the importance of critical engagement with technological resources, suggesting that meaningful learner agency requires more than access to digital tools (Nguyen & Nguyen, 2025). Xu et al. (2025) further demonstrated the relevance of digital multimodal composing to EFL students' metacognitive knowledge, suggesting that the pedagogical value of multimodal activities extends beyond the use of digital tools themselves. Rather, autonomy develops through the interaction between learners' decisions, their familiarity with digital resources, and the support available within their learning environment.

The findings therefore point to the importance of supported autonomy in foreign language education. Opportunities to select resources and make learning decisions should be accompanied by appropriate instructional scaffolding, particularly when students encounter unfamiliar technologies or demanding communicative tasks. This interpretation is consistent with research indicating that learner autonomy and engagement are shaped by the conditions of technology-mediated learning, including the design of multimodal activities and learners' opportunities to make informed decisions about available resources (Hauck et al., 2021; Mohammadi Zenouzagh et al., 2023). For teacher education, the implication is that learner choice and lecturer guidance should be treated as complementary elements of multimodal pedagogy rather than opposing approaches.

Implications for foreign language teacher education

The findings are particularly relevant to foreign language teacher education because the participants were enrolled in English and German Language Education Programs. Their experiences offer insights into how prospective language teachers perceive and engage with multimodal learning. Although the study did not directly assess their teaching competence, these experiences may inform their understanding of how different resources can support language learning and classroom communication.

The inclusion of two language education programs also extends the relevance of the findings beyond a single EFL context. Interview responses from both groups indicated that students valued visual and auditory resources for understanding language content and appreciated opportunities to learn independently. However, participants also reported difficulties with spontaneous speaking and, in some cases, the use of unfamiliar digital applications. These shared experiences suggest that multimodal pedagogy presents both opportunities and challenges across foreign language learning contexts. Nevertheless, the study was not designed to establish statistical differences or equivalence between the two programs.

For prospective language teachers, an important implication is the need to develop pedagogical judgment alongside digital competence. Trisanti et al. (2024) similarly highlighted the challenges

faced by Indonesian university EFL teachers in designing and implementing digital multimodal composing as part of their instructional practices.

Familiarity with video-editing applications or presentation tools does not necessarily indicate an ability to design effective language-learning activities. Humairoh et al. (2025) similarly highlighted the importance of developing pre-service English teachers' pedagogical competence in implementing digital multimodal composing, particularly in relation to their teaching practices and the challenges they encounter. Teacher education should therefore encourage students to consider how multimodal resources contribute to learning objectives, how learner autonomy can be supported, and how prepared multimodal activities can be integrated with opportunities for spontaneous communication. Moorhouse et al. (2026) further highlighted the importance of developing pre-service language teachers' pedagogical reasoning and informed decision-making through digital multimodal composing activities. This emphasis is consistent with research highlighting the pedagogical opportunities and implementation challenges of digital multimodal composing in language education (Y. Zhang et al., 2024).

Importantly, the present study does not establish causal improvements in learner autonomy or communicative competence. Questionnaire responses provided descriptive evidence of students' perceptions, while interviews offered contextual insights into students' learning practices and experiences. The findings should therefore be understood as patterns of multimodal engagement, autonomous learning, and communicative participation rather than evidence of measurable gains in language proficiency or teaching competence.

Pedagogical implications

The findings point to several implications for foreign language instruction and teacher education. First, multimodal tasks should be anchored in clear communicative purposes. Lam and Putri (2024) demonstrated how purposeful task design can integrate digital multimodal composing with critical literacy practices in EFL learning. Students need to understand who their intended audience is, what message they are expected to convey, and how each selected mode contributes to that message. Yang and Zainuddin (2026) similarly emphasized the importance of explicit genre and design criteria in digital multimodal composing, particularly in preparing language teachers to guide students' multimodal meaning-making. Adding images, music, or animation without a communicative function does not in itself constitute effective multimodal design.

Second, learner choice should be built into the task while remaining supported by appropriate scaffolding. A recent systematic review of collaborative digital multimodal composing likewise identified the importance of task design, teacher preparation, and institutional support in addressing the challenges of multimodal learning implementation (N. Zhang & Asmawi, 2026). Teachers can define the learning objectives and assessment requirements while allowing students to select topics, applications, resources, and modes of presentation. Students with limited experience in independent project work may initially require structured guidance, including explicit instruction, guided practice, and peer collaboration, before greater responsibility is gradually transferred to them (Sadikin & Apsari, 2025).

Third, assessment practices should consider both communicative performance and the purposeful use of multimodal resources. Jiang et al. (2024) demonstrated how digital multimodal composing can be incorporated into assessment practices, while also identifying the need to consider assessment validity, instructional scaffolding, and practical implementation challenges. Liu and Lam (2025) similarly emphasized the importance of assessing digital multimodal composing through rubric-referenced feedback that considers multiple dimensions of students' multimodal work. When assigning multimodal tasks, teachers may evaluate target-language use, clarity of meaning, organization of ideas, audience awareness, and the relevance of visual and auditory elements. Chan (2025) further highlighted the importance of task-specific assessment criteria that adequately reflect the characteristics of multimodal compositions. Assessment should also distinguish between prepared communication and students' ability to respond spontaneously during classroom interaction. Research on multimodal self-efficacy assessment further highlights the importance of distinguishing learners' confidence in multimodal academic production from the broader dimensions of communicative performance (Li et al., 2026). This distinction is particularly important because the interview findings revealed that students could feel confident when preparing presentations or recording videos while continuing to experience difficulties in unrehearsed speaking. Accordingly, multimodal assessment should not prioritize

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technical sophistication over linguistic and communicative performance. These recommendations represent pedagogical implications of the findings rather than assessment procedures directly evaluated in the present study.

Finally, multimodal projects should be complemented by opportunities for spontaneous language use. Akoto and Li (2025) demonstrated that patterns of peer interaction during collaborative digital multimodal composing were associated with differences in the quality of students' multimodal products, highlighting the importance of meaningful collaboration alongside multimodal production. Video production allows learners to plan and revise their messages, but classroom discussion, question-and-answer sessions, peer responses, and oral reflection are needed to extend prepared performance into interactive communicative competence. Within teacher education, these activities can also be followed by pedagogical reflection in which students consider how similar tasks could be adapted for different learners, proficiency levels, and teaching contexts.

Limitations

Several limitations should be considered when interpreting the findings. First, the study involved students from two foreign language teacher education programs at a single Indonesian university, which may limit the transferability of the findings to other contexts. Second, although classroom observations were conducted, the observation ratings were not included in the final numerical analysis. The reported findings therefore rely primarily on questionnaire responses and interview accounts, which provide insights into students' perceptions and experiences but do not establish causal relationships or measurable improvements in learner autonomy or communicative competence.

Third, the study did not include a separate systematic analysis of students' completed multimodal projects or standardized assessments of language proficiency. Therefore, conclusions about multimodal communication and spontaneous speaking are based primarily on participants' reported experiences rather than direct comparisons of assessed performance. Finally, the study was conducted within one academic semester, making it difficult to determine whether the observed learning practices and reported experiences were sustained over time.

Future research could address these limitations through longitudinal and multi-institutional studies, systematic analyses of multimodal artifacts, and direct assessments of prepared and spontaneous communicative performance. Further investigation could also examine how prospective language teachers transfer their multimodal learning experiences into subsequent teaching practice.

CONCLUSION

This study explored how multimodal pedagogy, learner autonomy, and communicative competence were manifested in foreign language classrooms involving 100 students from English and German Language Education Programs. Evidence from questionnaire responses and semi-structured interviews indicated that students generally perceived multimodal learning positively. Visual, auditory, written, and digital resources supported their understanding of language content and provided opportunities to engage with learning activities. Students also described exercising autonomy by selecting learning resources, reviewing materials independently, and seeking additional explanations beyond classroom instruction.

An important finding was the distinction between students' positive experiences of multimodal learning and their confidence in spontaneous communication. Although participants reported feeling more confident when preparing presentations or recording videos, several continued to experience difficulties with vocabulary retrieval, grammatical accuracy, and immediate responses during unprepared interaction. These findings suggest that multimodal pedagogy can provide supportive conditions for meaning-making and communicative practice, but its implementation does not necessarily lead to equivalent confidence across different communicative situations.

For foreign language teacher education, the findings highlight the importance of integrating multimodal resources with purposeful task design, appropriate instructional scaffolding, and opportunities for direct interaction. Prospective language teachers should be encouraged not only to use digital tools but also to consider how different modes contribute to language-learning objectives, support learner autonomy, and facilitate meaningful communication. Multimodal activities should therefore complement, rather than replace, opportunities for spontaneous target-language use.

Given the study's classroom-based qualitative design, the findings should be interpreted as descriptive patterns of students' reported learning

experiences rather than evidence of causal improvements in communicative competence. Future research could employ longitudinal and multi-institutional designs, systematic analyses of multimodal artifacts, and direct assessments of prepared and spontaneous communication. Further investigation into how prospective language teachers apply multimodal pedagogical approaches during teaching practice would also extend the implications of the present study.

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