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# Fostering English Speaking Proficiency through Deep Learning-Based Habitual Speaking Practices (A Study at SMP Negeri 24 Semarang)

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## ABSTRACT

The ability to communicate effectively in English is an important goal of English language education, yet junior high school learners may have limited opportunities to use English orally in meaningful classroom contexts. This study explores the implementation of deep learning-based habitual speaking practices at SMP Negeri 24 Semarang. The practice was grounded in Mindful Learning, Meaningful Learning, and Joyful Learning and supported by game-based activities and AI-based learning tools. A qualitative approach was employed using classroom observations, student questionnaires, and teacher questionnaires. Thirty-five students and three English teachers participated in

the evaluation. Student responses across 25 Likert-scale statements produced an overall mean of 4.58/5, while teacher responses across 30 statements produced an overall mean of 4.67/5. Students particularly reported that the activities helped them use transactional expressions, understand buyer/seller roles, and practise speaking through market simulation. Teacher responses consistently rated the learning design, deep learning characteristics, student engagement, and applicability positively. Qualitative responses further identified market simulation as the most frequently mentioned preferred activity and highlighted increased confidence, practical communication, collaboration, and enjoyment. The findings indicate that habitual speaking supported by contextual games and simulation can foster active, meaningful, and enjoyable English speaking practice.
**Keywords:** Deep Learning approach, English speaking proficiency, habitual speaking, Joyful Learning, Meaningful Learning, Mindful Learning

## Introduction

English speaking proficiency is increasingly important because language learning is expected not only to develop knowledge of vocabulary and grammar but also to enable learners to communicate in meaningful situations. For junior high school learners, however, opportunities to use English orally may remain limited when classroom interaction is dominated by explanation and written exercises (Pakpahan et al., 2025; Suriaman et al., 2023). Limited opportunities for authentic speaking can affect learners' confidence, willingness to communicate, and ability to transfer language knowledge into interaction.

Educational technology and AI-supported tools provide new possibilities for expanding opportunities for language practice. AI can potentially offer additional opportunities for learners to rehearse spoken English beyond teacher-led interaction, although human guidance remains important (Ericsson & Johansson, 2023; Huang et al., 2025). In this study, technology is positioned as a supporting resource within a broader pedagogical design rather than as a replacement for teacher interaction.

The deep learning approach provides a relevant pedagogical foundation for this design. In the present study, deep learning is operationalized through Mindful Learning, Meaningful Learning, and Joyful Learning. Mindful Learning encourages learners to pay attention to what they are learning and how they are using language (Mouta et al., 2025; Wolff et al., 2024). Meaningful Learning connects language with recognizable purposes and real-life contexts. Joyful Learning creates a positive environment in which learners can participate actively without excessive pressure.

The practical challenge is therefore not simply how to introduce AI or games, but how to organize them into a sustained speaking routine (Citraningtyas & Cendana, 2024; Martin et al., 2024). This study addresses that need through habitual speaking activities built around the topic of buying and selling. The sequence included warm-up activities, vocabulary practice through jumbled words, sentence formation through tic-tac-toe, online Jeopardy, market simulation, and reflection/exit ticket. The design gives students repeated opportunities to move from vocabulary recognition to sentence construction and finally to communicative use.

The study aims to explore how deep learning-based habitual speaking practices foster English speaking proficiency among students at SMP Negeri 24 Semarang. It

specifically examines students' perceptions of learning, game-based activities, speaking practice, confidence and enjoyment, as well as teachers' perceptions of the instructional design, deep learning characteristics, student engagement, and classroom applicability.

## Methods

This study employed a qualitative evaluative approach supported by descriptive analysis of questionnaire responses (Slater & Hasson, 2025). The setting was SMP Negeri 24 Semarang. The evaluation involved 35 students and three English teachers. The student questionnaire included 25 Likert-scale statements and several open-ended questions. The teacher questionnaire included 30 Likert-scale statements and five open-ended questions. The Likert scale ranged from 1 to 5, with higher scores representing more positive responses.

The student participants represented Grade 7 and Grade 8 classes. Of the 35 student responses, 31 identified as female and three as male, with one response not reporting gender. Twenty-one students (60.0%) reported that they had previously learned buying and selling, while 14 (40.0%) had not. Fifteen students (42.9%) reported previous experience with English role play or buying-and-selling simulation, whereas 20 (57.1%) had not.

| **Participant/data** | **n** | **Description** |
|---|---|---|
| Students | 35 | Grades 7–8 |
| Teachers | 3 | >15 years teaching experience reported by all |
| Previous buying-and-selling learning | 21 Yes; 14 No | Student self-report |
| Previous English role play/simulation | 15 Yes; 20 No | Student self-report |

The learning sequence consisted of a warm-up followed by vocabulary and speaking activities. Jumbled word games were used to reinforce vocabulary; tic-tac-toe was used for sentence construction; online Jeopardy was used to practise questions and transactional expressions; market simulation was used to provide contextual speaking practice through buyer and seller roles; and reflection/exit tickets were used to consolidate learning. The supplied data also indicate the use of AI-based learning support, although the specific AI platform is not identified in the questionnaire files and is therefore not named here.

Data analysis combined descriptive statistics and qualitative thematic interpretation (Braun & Clarke, 2021; Creswell, 2013). For the quantitative component, item means and standard deviations were calculated, and responses of 4 or 5 were treated as positive responses. Student statements were analytically grouped into four dimensions and teacher statements into four dimensions to summarize the instrument. These groupings are analytical summaries of the questionnaire items, not labels originally supplied in the questionnaires.

## Findings and Discussion

### 1. Student perceptions were strongly positive

The 35 students produced an overall mean of 4.58 out of 5 across the 25 Likert-scale statements. Overall, 91.0% of the recorded Likert responses were positive (scores 4 or 5). All four analytical dimensions produced means above 4.49, with speaking performance in simulation receiving the highest mean (4.67).

| Student dimension | Mean | SD | Positive responses |
|---|---|---|---|
| Learning understanding & speaking opportunity | 4.52 | 0.65 | 91.4% |
| Game-based learning | 4.59 | 0.74 | 89.7% |
| Speaking performance in simulation | 4.67 | 0.55 | 96.1% |
| Meaningfulness, confidence & enjoyment | 4.50 | 0.81 | 84.8% |

The strongest student result concerned speaking performance in simulation (M = 4.67). The highest individual item was the ability to use expressions such as “Do you have…?”, “How much is it?”, and “I’d like to buy it” (M = 4.80, SD = 0.41). Students also rated understanding their roles as buyer or seller highly (M = 4.74) and working with peers during market simulation highly (M = 4.74). These findings indicate that students perceived the simulation as a bridge between vocabulary learning and purposeful oral communication.

This pattern supports the Meaningful Learning dimension of the intervention (Davis, 2024; Omodan, 2023). Buying and selling is a recognizable social activity, so the language being practised had an identifiable communicative purpose. Students were not only exposed to transactional expressions but were required to use them to ask questions, respond, and complete a simulated transaction.

### 2. Game-based activities supported active and enjoyable learning

The game-based learning dimension received a mean of 4.59. The statement that games made speaking lessons more enjoyable received M = 4.77 (SD = 0.49). In the open-ended question about preferred activities, market simulation was mentioned by 24 of the 35 students, followed by jumbled word game (22), Jeopardy (12), tic-tac-toe (11), and reflection/exit ticket (9). Because students could select more than one activity, these figures represent mentions rather than mutually exclusive preferences.

Students frequently described the activities as enjoyable, collaborative, and less boring. Several responses valued the opportunity to practise directly rather than merely memorize language. The data therefore suggest that Joyful Learning was experienced through active participation, peer interaction, challenge, and opportunities to use English (Hwang et al., 2023; Parker et al., 2022).

### 3. Confidence improved, but fear of making mistakes remains an area for attention

The meaningfulness, confidence, and enjoyment dimension produced M = 4.50. The lowest individual item in the student questionnaire was "Saya tidak terlalu takut membuat kesalahan saat berbicara bahasa Inggris" (M = 3.97, SD = 1.04). This indicates that positive participation did not automatically eliminate concern about speaking errors.

At the same time, the open-ended responses repeatedly explained increased confidence in terms of learning relevant vocabulary, understanding how buying and selling conversations work, receiving guidance, and having opportunities to practise. One response specifically connected confidence with being allowed to make mistakes and receive the correct answer rather than being blamed. This highlights the importance of supportive error correction and a psychologically safe classroom environment (Abu Khalaf et al., 2022; Xu & Li, 2022).

### 4. Teacher responses strongly support the instructional design

All three participating teachers responded positively to the 30 Likert-scale statements. The overall mean was 4.67/5, and 100% of recorded teacher Likert responses were positive (scores 4 or 5). The four analytical dimensions ranged from 4.67 to 4.69.

| Teacher dimension | Mean | SD | Positive responses |
|---|---|---|---|
| Learning design & activity sequence | 4.67 | 0.48 | 100.0% |
| Deep learning characteristics | 4.67 | 0.49 | 100.0% |
| Observed student engagement & speaking | 4.69 | 0.47 | 100.0% |
| Applicability & teacher intention | 4.67 | 0.49 | 100.0% |

Teachers particularly emphasized the communicative value of market simulation. Their open-ended responses described simulation and role play as effective (Kunitz et al., 2022) because students could take buyer and seller roles, practise asking and answering questions, and apply vocabulary directly. One teacher described the activity as motivating because buying and selling is connected to students' everyday experiences; another emphasized that students could practise vocabulary directly and make communication occur.

Teachers also judged the sequence to be active, meaningful, and enjoyable. Their responses described students as active but not pressured, enthusiastic throughout the lesson stages, and able to apply the language to everyday situations. These observations reinforce the interpretation that the three deep learning dimensions were embedded in the activity design.

### 5. Prior experience and remaining challenges

The student data show that 14 of 35 students had never learned buying and selling before, and 20 had never previously participated in English role play or buying-and-selling simulation. Despite this variation in prior exposure, the overall responses were strongly positive. The data suggest that the sequence was accessible to students with

different levels of previous exposure; however, the study did not include a pre-test/post-test comparison or inferential test, so no causal or between-group claim is made.

The open-ended responses identified tic-tac-toe, sentence construction, pronunciation, and speaking during market simulation as some of the more difficult aspects. Teachers similarly identified active English speaking and asking/answering as challenging. These difficulties suggest the need for scaffolding (Heikkinen et al., 2025; Shamim Akhter et al., 2026), including model expressions, pronunciation support, sentence frames, and gradual movement from controlled practice to freer communication.

### 6. Implications for deep learning-based speaking instruction

The findings suggest that habitual speaking is most useful when repetition is accompanied by progression and purpose. Students moved from vocabulary recognition to sentence construction, then to questions and transactional expressions, and finally to market simulation (Santoso, 2014). This progression gives repetition a communicative function rather than making it mechanical drilling.

The findings also highlight the role of teacher facilitation. AI and digital activities can expand practice opportunities, but teacher guidance, feedback, grouping, and classroom atmosphere remain important. The questionnaire data do not identify the specific AI platform, so the present findings should be interpreted as evidence about the integrated learning design rather than about a particular AI application.

Teachers suggested making future implementation more authentic by using real buying-and-selling settings, expanding setting-specific vocabulary while retaining links to students' lives, and potentially conducting more realistic transactions. These suggestions offer a practical direction for subsequent implementation.

## Conclusion

This study found that deep learning-based habitual speaking practices supported by games, simulation, and digital/AI-supported learning resources were positively received by students and teachers at SMP Negeri 24 Semarang. Across 25 student Likert statements, the overall mean was 4.58/5, with 91.0% of recorded responses scoring 4 or 5. Speaking performance in simulation showed the strongest student dimension (M = 4.67), while the ability to use transactional expressions received the highest individual mean (M = 4.80). Teacher responses were similarly positive, with an overall mean of 4.67/5.

The qualitative data strengthen these findings by showing that students valued direct practice, collaboration, games, and market simulation, while teachers emphasized the communicative and motivational value of role play and simulation. At the same time, fear of speaking errors remained the weakest student-rated area (M = 3.97), indicating that future implementation should place greater emphasis on supportive error correction and confidence-building.

The study is limited because the evaluation is perception-based and does not include a standardized pre-test/post-test speaking measure. The teacher sample is also small (n = 3). Future research should combine perception data with direct speaking-performance assessment, examine changes over time, and compare different forms of AI-supported speaking practice. Nevertheless, the findings indicate that habitual speaking can provide a

practical way to integrate Mindful, Meaningful, and Joyful Learning into junior high school English instruction.

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