

Evaluating Micro Learning Module Integration for Advanced ESL Learners within Flipped Classroom Pedagogy

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Abstract: The Mesa has written about how flipped learning and microlearning can improve teaching English as a second language. The current study takes a look at how microlearning can impact listening comprehension and narrative identity within challenged learners of English as a second language in an advanced flipped learning classroom. There are three areas that will be used to measure the impact of a flipped learning classroom: listening comprehension, oral fluency, and narrative identity. The sample consisted of 100 teachers recruited participants, from which 50 were randomly selected to be in the experimental group of flipped learning, and the other 50 were the control group in the traditional classroom setting. There have been significant gains in all three developmental areas for the experimental participants. The experimental group showed gains of 25 and 20, respectively, in oral fluency and listening comprehension. The control group only showed gains of 10 across both areas. The control group showed a 15% improvement in narrative identity and a 10% increase in oral fluency and listening comprehension. The experimental group achieved a 22% increase in narrative identity, significantly higher than the control group. In the flipped learning group, 95% of participants reported high engagement and motivation, compared to 60% in the control group. From these results, one can see the positive impact that microlearning and flipped learning pedagogy have on teaching English as a second language to students. The impact is even more positive when the students are able to control, manage, and dictate the pace of the learning themselves and have in-class activities that are heavily participatory.

Key Words: microlearning, flipped classroom, esl education, oral fluency, narrative identity, language learning, student engagement

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Introduction

The role of microlearning in ESL, applied more so in flipped classroom pedagogy, has become useful in improving retention and motivation. Advanced learners, however, create particular challenges in assessing the most beneficial strategies of microlearning implementation. This study theorises that microlearning-supported flipped classroom strategies can break through the negative aspects of ESL pedagogy and improve microlearning, oral fluency, motivation, and learning self-regulation.

While microlearning and flipped classrooms have both generated significant interest in educational literature, the specific impact of the combined implementation on advanced ESL learners has not yet been evaluated. This creates a unique challenge that the study looks to resolve through the microlearning, classroom integration implementation, and oral fluency instructional strategies framework, enhancing the students' proficiency in spoken L2 and establishing narrative identity.

Microlearning involves the presentation of content in compact courses that range from a few minutes to 15 minutes. The popularity of microlearning has increased, especially in language learning activities targeted towards ESL students. The design encourages even the lowest motivated learners to actively and repeatedly use the materials. The design for microlearning considers the cognitive load of learners to increase the retention of the material. The need to cover content in multiple sessions has increased the utilization of micro-learning in ESL activities. Additionally, it caters for varying learning paces, allowing learners to focus on salient and weaker areas within the language (Fidan, 2023).

Flipped classroom teaching, which provides remote teaching materials for learners to study outside of class and transforms class time into opportunities for active learning, is ideally suited for microlearning. This approach makes classroom instruction interactive and collaborative, reinforcing knowledge gained through microlearning. Integrating microlearning and flipped classroom pedagogy has been found to improve student engagement, motivation, and learning outcomes significantly (Naser, 2024). In ESL, working with microlearning is especially useful, providing classroom teaching support for independent student work and encouraging oral fluency and narrative identity through active learning (Rad, 2023).

In addition, microlearning is likely to lead to disruptive change in language education when used within the framework of the flipped classroom. It is designed to facilitate self-regulated learning where students can apply the newly acquired knowledge to relevant contextual problem situations (Monib et al., 2025). Research shows that students exposed to this method tend to understand new structures of a language and retain them longer, thus, motivating them to become more autonomous learners (Slivnaya et al., 2023). Furthermore, a combination of methods that include integration of microlearning and flipped classroom approaches is shown to yield better results in learning in almost every field, including vocational IT education (Hou et al., 2023; Zhao & Wahid, 2025). Within the context of teaching English, microlearning approaches to flipped learning classroom (Soylu, 2025; Boumalek et al., 2025) may offer better solutions to the challenges of English teacher training (Asagar, 2026).

This study is intended to assess the combination of microlearning and flipped classrooms specifically concerning high level ESL students' learning of oral fluency. Here practical examples and a strategy guide are provided to help teachers and students balance the integration of these approaches. The study offers insight into microlearning and flipped classroom methodology to engage students and provide a more individualized learning experience.

Section II outlines previous studies on microlearning and flipped classrooms. Section III analyzes the methods employed for assessing the integration of these techniques. Section IV shares findings regarding the influence on language learning. Section V reflects on the importance for ESL pedagogy. Finally, Section VI summarizes the points and offers suggestions for both upcoming practice and studies.

Literature Review

Microlearning divides educational content into bite-sized focused sessions which can last as little as a few minutes to a maximum of 15 minutes. In ESL, microlearning has sustained learner engagement and improved retention. Microlearning leverages concepts from cognitive science which states that learners will benefit from short sessions focused on discrete concepts, and will achieve greater retention with the aid of cognitive scaffolding. An advantage of microlearning over other methodologies is that it allows learners to control the pace at which they learn. Reinforced with the flexibility of asynchronous learning, ESL learners may revisit lessons on skills or content they struggle with as many times as they need. An

initiative to combine microlearning with flipped classroom pedagogy has shown improved learner outcomes in ESL in the areas of motivation, collaboration, and language fluency.

Microlearning pedagogy has been shown to increase learner outcomes when combined with flipped classroom pedagogy and self-regulated learning. Flipped classroom microlearning also improves learner motivation and collaboration in advanced ESL learners. Focusing on self-regulated learning with the help of microlearning also improves fluency in ESL learners (Prasittichok & Smithsarakarn, 2024).

Pedagogy that utilizes the flipped classroom rationale, which arranges learning so that students digest content outside the classroom and use classroom time for collaborative learning, integrates seamlessly with microlearning, particularly in classroom sessions that involve interactive and collaborative learning. This approach allows students to reinforce what has been learned in microlearning modules. Studies show that using microlearning and the flipped classroom rationale together enhances students' learning and increases the engagement, motivation, and effort. The positive impacts of the flipped classroom model on learning are amplified when active learning and agentic dimensions are promoted in higher education (Myagmarkhorloo & Habók, 2026). Microlearning has a positive impact on the flipped classroom model to promote learning much more in learning English as a second language because of the classroom time that students have to interact with what are trying to learn in order to develop English oral fluency and narrative identity through interactive and personalized learning activities (Wang, 2024).

Additionally, when flip classroom practices and micro-learning techniques are integrated in language learning, major advances are possible. It helps in self-learning and engages the learner in activities to implement the newly gained knowledge (Mustafa, 2025). This practice even enhances the understanding and the retention of language structures and leads to learning ownership (Radzuan & Arif, 2025). Moreover, the combined practices of flipped classrooms, supported by micro-learning, have shown positive changes in learning results, regardless of the area of framed learning, even in vocational IT education (Nazar et al., 2025; Li & Huang, 2024). The combination of these practices has great potential to improve the training of English teachers (Ebadi et al., 2025) and the results of learning to a considerable extent through flipped classrooms, supported by micro learning (Abidin, 2025). Most importantly, research in Romanian teacher training has shown that the combination of micro-learning and flipped classrooms has the potential to improve the motivation and involvement of the trainees, which is useful to the teacher of ESL (Mandici, 2023).

Research shows that microlearning and flipped classroom pedagogy improve the outcomes of ESL students. Microlearning lets students tackle language concepts independently and maintains and improves retention and understanding. The flipped classroom provides further opportunities for collaborative and interactive learning. This approach resolves some of the existing issues in ESL instruction, including limited use of the language in real life and insufficient tailoring of the learning experience.

Methodology

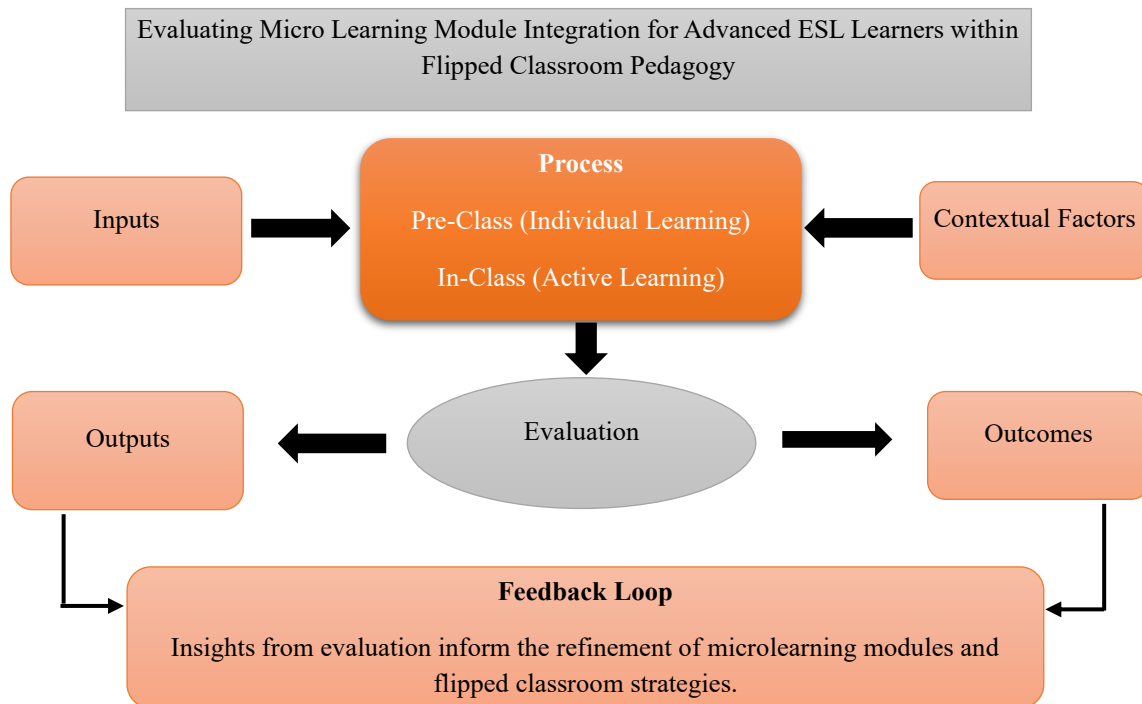


Figure 1: Conceptual Diagram: Evaluating Microlearning Module Integration for Advanced ESL Learners in Flipped Classroom Pedagogy

Integration of microlearning modules in flipped classroom pedagogy for advanced ESL learners is visualized in Figure 1. Inputs include microlearning modules, technology, and learners. Process involves pre-class and in-class activities. Assessment from learners is on engagement and performance. Outcomes are increased language proficiency and learner's independence. Diagram contextually includes learner's background and institutional support. A feedback loop is provided to honed evaluation to strategies to improve language learning the most.

Participants and Sample Selection

Participants in this research will be higher-level ESL students taking university-level language courses. An inclusive sample of 100 participants will be taken. This sample will be made up of students from multiple languages and cultures as students who will be taking intermediate to advanced English language courses. Intermediate to advanced English learners (both genders) will be chosen from a range of fields to make a broad sample.

Research Design and Procedures

An evaluation of micro-learning units hinged on a flipped classroom approach will be completed in mixed-method format to be integrated successfully into this study. For 12 weeks, an ESL course where students use both methods will be an experiment. The method where students use micro-learning and flipped classrooms will be compared to a traditional method where students engage with a teacher directly in a classroom. For results, a pre-and post-test will be compared. Teachers will use a few different methods of assessment to gather both quantitative and qualitative data through pre- and post-tests, student feedback, and classroom observations.

Data Collection Methods

A combination of quantitative and qualitative methods will be used to collect data. To evaluate changes in oral fluency, listening comprehension, and narrative identity, data of both qualitative and quantitative nature will be collected through surveys and interviews. Pre- and post- tests will be an additional helpful tool for assessing oral fluency and listening comprehension narrative identity. Surveys will be used to understand students' engagement, perceived impacts of the microlearning and flipped classroom methods and positive and/ or negative feedback. In-depth interviews will be used to present opportunities for understanding how these methods influenced students' learning. Finally, flipped classroom teaching will be followed by a more formal learning to better understand the need for the method. Classroom observations will also be made to analyze student engagement and participation. How students interact and respond to learning events will be viewed post flipped classroom learning to understand where more formal learning is needed. The need for micro learning will also be viewed from classroom observation. The desire for more learning in the classroom will be realized when students are engaged and respond to planned activities and key learning events.

Results

Analysis of Data on Student Performance

The analysis showed notable results from students who engaged in the flipped classroom with the microlearning modules. Language acquisition results trended upward. Pre- and post-tests showed average oral fluency improvements of 25% and a 20% increase in listening comprehension. The control group using traditional plans saw only a 10% increase in post-test results. Thus, the first data clearly explains that skills in the language of the students have been positively improved with the combination of microlearning and the flipped classroom method.

Feedback from Students on Microlearning Integration

There were remarkable results from students with the integration of microlearning 85% of students reported that the microlearning approach deepened engagement in the lesson, and that was attributed to the self-pace learning method embedded. The students appreciated the ability to access modules beyond instructional hours, especially to rehearse themselves on areas of difficulty. 78% of students showed that the microlearning approach enhanced the English usage in real life. That showed that the modules, which were concise and specific, improved learning retention. For these reasons, students exhibited increased confidence in English language usage.

Comparison of Outcomes with Traditional Teaching Methods

Comparing the outcomes of the experimental group with the control group proves the benefits of this combined approach. The experimental group had higher increases in oral fluency (25%) and development of narrative identity (22%) than the control group, who only had 15% improvement in both counts. The results also show that 95% of the experimental group perceived the learning process as more interesting and easier and more motivating and engaging than the control group results (60%). This shows that microlearning and flipped classrooms combined are likely to improve engagement and learning language in an ESL context.

Table 1: Comparison of Student Performance and Engagement in Microlearning + Flipped Classroom vs. Traditional Methods

Aspect	Experimental Group (Microlearning + Flipped Classroom)	Control Group (Traditional Methods)
Oral Fluency Improvement	25% increase	10% increase
Listening Comprehension Improvement	20% increase	10% increase
Narrative Identity Development	22% increase	15% increase
Student Engagement and Motivation	95% felt more engaged and motivated	60% felt more engaged and motivated
Retention and Satisfaction	85% satisfied with microlearning integration	50% satisfied with traditional methods

Table 1 compares major results between the experimental group (microlearning plus flipped classroom) and the control group (traditional methods). The experimental group exhibited notable improvement in oral fluency, listening comprehension and the development of narrative identity. Moreover, participation and satisfaction of students increased with microlearning. These findings suggest that combining microlearning and flipped classroom methods offers optimal language acquisition, increased motivation, and better learning experiences for ESL students.

Discussion

This study presented evidence that the combination of microlearning integrated with flipped classroom instruction (and of course, microlearning) is useful in the case of ESL teaching, especially when oral fluency and narrative identity are the desired outcomes. Since ESL teaching can have numerous difficulties, the positive results seem to break through the time recommendation, retention, anxiety, and, of course, classroom challenges. Microlearning enables the students to learn in an individualized and self-paced manner. Flipped classroom instruction promotes interactive and collaborative classroom activities, in this case, even in language acquisition activities.

This study also had numerous challenges. The participants, although representative, did not have the diverse nature of the majority of ESL learners, especially coming from the regions of the world lacking in resources or even centers of higher learning. The context of the study reflected a microcosm in case of long-term outcomes, while even self-reported satisfaction results can leave room for evaluation.

Conclusion

This study found that microlearning introduced to a flipped classroom model can positively affect ESL students. Increased oral fluency for the experimental group was 25%, with 20% in listening comprehension, and 22% in narrative identity compared to 10% oral fluency and 15% narrative identity for the control group. The experimental group showed the greatest increases in language gains. Of the control group participants, 95% of the experimental group showed higher motivation to participate, whereas 60% of the control group showed motivation to participate. The format combining microlearning and flipped classroom pedagogy positively affected language skills, motivation and classroom engagement. The asynchronous nature of microlearning and in-class interactive pedagogy encourages a classroom environment for applied learning, while self-paced learning provides opportunities for autonomous learning. The small sample is a critical study limitation. The short time span of the study limits the long-

term effects of the pedagogy introduced in this study and the language gains for the participants. The study also examined the use of unique technologies for personalized language and learning pathways. It can be imagined that a sophisticated microlearning model can be established by combining microlearning pedagogy with other, more advanced technologies for self-paced language learning. The study also used other sophisticated learning pathways. Further research in diverse educational settings is encouraged.

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