

## Original Research

# Micro-learning principles in teaching EFL in the structure of supplementary and further education: Andragogical aspect

by Elena M. Slivnaya, Victoria A. Borisenko and Marina V. Samofalova

Elena M. Slivnaya Southern Federal University, Russia [emslivnaya@sfnu.ru](mailto:emslivnaya@sfnu.ru)

Victoria A. Borisenko Southern Federal University, Russia [vaborisenko@sfnu.ru](mailto:vaborisenko@sfnu.ru)

Marina V. Samofalova Southern Federal University, Russia [mvsamofalova@sfnu.ru](mailto:mvsamofalova@sfnu.ru)

Article history Received August 19, 2023 | Revised November 13, 2023 | Accepted December 4, 2023

Conflicts of interest The authors declared no conflicts of interest

Research funding No funding was reported for this research

doi [10.22363/2521-442X-2023-7-4-46-53](https://doi.org/10.22363/2521-442X-2023-7-4-46-53)

For citation Slivnaya, E. M., Borisenko, V. A., & Samofalova, M. V. (2023). Micro-learning principles in teaching EFL in the structure of supplementary and further education: Andragogical aspect. *Training, Language and Culture*, 7(4), 46-53.

*The study considers the innovative educational technology of micro-learning to demonstrate how micro-learning can be used as an effective strategy for teaching a foreign language to adults in the system of additional education, at language courses of various types, in view of modern conditions and realities. The scientific novelty of the study is an example of modelling an English lesson according to the basic principles of micro-learning technology: brevity, conciseness, repeatability. The study has shown that micro-education contributes to increasing student activity and their involvement in the educational process. The study concludes that thanks to micro-education, it is easier for students to see the productive result of their actions, which in turn increases their confidence in further success. Moreover, it facilitates reflection, which is an integral part of any skill development. 'Difficult' tasks, on the contrary, may be inadequate to the level of language competence and make learning goals unattainable, which can become a serious factor in demotivating adult learners. The implications of this study extend beyond the immediate context of language education, pointing to the broader potential of micro-learning as a pedagogical tool for enhancing engagement and confidence in adult learners. As educational institutions seek effective strategies in adapting to modern learning environments, the study suggests that integrating micro-learning principles could offer a beneficial approach for optimising adult language acquisition and fortifying a positive and reflective learning experience.*

**KEYWORDS:** *micro-education, andragogy, informatisation, digitalisation, microcontent, adult neurophysiology, cognitive overload*



This is an open access article distributed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0), which allows its unrestricted use for non-commercial purposes, subject to attribution. The material can be shared/adapted for non-commercial purposes if you give appropriate credit, provide a link to the license, and indicate if changes were made.

## 1. INTRODUCTION

The 21st century is witnessing the emergence of new forms of social communication, lifestyle, mentality and way of thinking. The current society at large can be characterised as a digital generation, since almost all spheres of human life and activity take place both in real and virtual environments. The growing informatisation of all spheres of human activity and the complication of socio-economic realities form a new social order and impose new requirements on education.

In recent years, the world pedagogical community has been widely discussing the phenomenon of microlearning. In a general sense, microlearning is learning with the help of micro-content or micro-tasks covering one idea or goal (Souza, 2014, p. 57). Researchers look at microlearning differently: it is often associated

with digital didactics or a new stage in the development of mobile learning (Avramenko, 2020; Bruk et al., 2012; Souza, 2014). A microlearning strategy can be implemented through small text or multimedia content, infographics, learning management systems designed to meet the requirements for micro-content of learning applications, mobile testing systems, social networks and instant messengers.

As stated by psychologists, psycholinguists, educators and andragogy experts, a partial transition of human activity into the virtual space leads to changes in both the axiological and psychological spheres of life (Nikou & Economides, 2018). The characteristics of a digital-generation student include (1) simultaneous perception of heterogeneous elements and multitasking, (2) fragmentary perception and clip-like thinking, and (3) attention

deficit and priority of visual perception (Akrim, 2018). Modern students of all ages demonstrate a special attitude to the method, volume and speed of obtaining and processing information. They expect that their epistemological needs will be satisfied immediately, so modern education should be sufficient, but not redundant, practice-oriented, and also significantly personalised (Gallardo-Echenique et al., 2015; Efremova et al., 2023).

Considering the aforementioned psychological characteristics of the digital generation, teachers of various subjects and disciplines are implementing methodological strategies that include micro-content, frequent repetition and visualisation. We posit that the incorporation of microlearning methodologies has the potential to significantly enhance and enrich the field of linguodidactics, particularly in non-linguistic universities where the instruction of foreign languages encounters numerous challenges. These challenges often manifest in constraints such as limited time dedicated to language instruction, lower language proficiency levels among students, and a pervasive lack of motivation. By embracing microlearning, educators in these non-linguistic contexts can overcome these obstacles by delivering concise, targeted language lessons that fit seamlessly into busy academic schedules. Thus, microlearning's emphasis on brevity and focused content aligns with the time constraints faced in non-linguistic academic settings, allowing for the integration of language learning without disrupting the primary academic curriculum. Additionally, its adaptability enables educators to tailor content to the specific needs and proficiency levels of individual students, addressing the challenge of varying language competencies within a diverse student body. Furthermore, in the face of motivational hurdles commonly experienced in non-linguistic disciplines, microlearning provides bite-sized, achievable language goals that can instil a sense of accomplishment. By breaking down language learning into manageable segments, microlearning can boost motivation and interest, creating a positive attitude toward language acquisition even among students who might otherwise find traditional language instruction daunting. That being said, we contend that microlearning, with its tailored, time-efficient, and motivational features, stands as a promising solution to enhance linguodidactics in non-linguistic universities, contributing to more effective foreign language education in challenging academic environments.

This paper will describe the main principles of building a lesson in a foreign language from the point of view of the concept of microlearning within the framework of the andragogical aspect for students studying English in the system of additional, non-core education as an additional tool to the main profession, as well as for career opportunities, for using the language for personal purposes, and even just for fun. As a rule, these students are very overloaded with daily information content, various work or personal matters, and due to their employment, the 'little but regular' format is perfect for them.

The microcontent under study are words containing the semantic component SELF. This focus on microlearning, encapsulated in the semantic theme of SELF, aligns with the broader goal

of streamlining language acquisition. The investigation into these microcontents with a specific semantic component aims to uncover the ways in which the incorporation of such linguistic elements can enhance the overall language learning experience within the specified educational context.

The decision to centre our focus on the semantic component SELF within the concept of microlearning stems from a deliberate effort to articulate the main principles of constructing foreign language lessons within the framework of andragogy. Specifically, we aim to address the unique needs of students studying English in the context of additional, non-core education – individuals who pursue language learning not only as a supplementary tool for their main profession but also for career advancement, personal enrichment, and recreational purposes. Given the considerable demands on these learners, who often contend with information overload, professional commitments, and personal responsibilities, the 'little but regular' format inherent in microlearning proves to be an ideal fit for their hectic lifestyles.

The semantic theme of SELF serves as a focal point for our investigation into microcontent. By looking into words containing the semantic component SELF, we intend to explore the ways in which this specific linguistic element can be harnessed to optimise the language learning process. This strategic focus aligns with our broader objective of streamlining language acquisition, taking into account the specific needs and preferences of the target audience.

## 2. MATERIAL AND METHODS

The study comprised thirty first-year students enrolled in a university-based additional education programme, demonstrating language proficiency at the A2-B1 level. The instructional approach involved 60-minute classes held three times a week, with a specific format organised into internally segmented 20-minute periods. This segmentation is deliberate, aligning with adult neurophysiology principles, where the average maximum attention span for adults is around 18 minutes. Beyond this timeframe, activities are relegated to preparatory or concluding backgrounds. This design is informed by the understanding that smaller information chunks are more effectively absorbed, whereas excessive data results in cognitive overload (Grishchko, 2023), diminishing interaction and hindering the learning process (Mohammed et al., 2018; Malyuga & McCarthy, 2021). Furthermore, considering the increasing challenges of managing attention in an age of heightened digitalisation, microlearning serves not only as an effective educational strategy but also as a therapeutic technique, consistently refreshing attention throughout the lesson.

Moreover, the choice of this approach considers not only the cognitive aspects of learning but also acknowledges the evolving challenges of attention management in a digitally saturated environment. In recognising attention as a valuable and scarce resource, the microlearning strategy serves dual roles, not only as an effective educational tool but also as a therapeutic

technique, offering regular attention-refreshing intervals to aid in maintaining focus and engagement during the learning sessions. This holistic approach underscores the intentionality and adaptability of the methodology, catering to the unique needs of adult learners in the context of additional language education.

### 3. THEORETICAL BACKGROUND

There are many disparate definitions around 'microlearning' as a term, and researchers do not always manage to come to a consensus. Most often, opinions differ in two aspects – lesson duration and material volume. Scholars concur on one thing: microlearning is a short learning session with a clear goal and a small portion of practical content, organised on a regular basis (Dolasinski & Reynolds, 2020; Sibul et al., 2020). The basic principle of microlearning requires brevity, frequent regularity, and conciseness. Brevity and conciseness make it possible to be in full attention, and the regularity – purely physiologically – makes it the new habitual. With this approach, the entire nervous system is launched in a natural way (Akopova, 2023).

The Internet media space offers many resources on the style of micro or mini: mini-lessons, mini-videos, mini-texts and mini-tests. Most of them, however, do not fit the principles of microlearning. The main criterion of the microformat is a clear educational mini-content – the most important thing that the student must remember and work out in class. Just a short lesson without a clear highlight of the main thing, or a short video (6 minutes) but with 25 words, or a short text without a clear micro-task is just reduced time or reduced volume.

The main question of microlearning and the main methodological decision of a teacher working based on this approach will always be related to the 'compression' of language content: how little, and how little will be enough for a particular lesson with its time limit.

Compression occurs in the following areas: reducing the list of lexical units (micro-list up to +/-5 words), reducing the length of text content (micro-texts up to +/- 200 words), reducing the length of the exercise (micro-exercises +/- 6 sentences or questions), reducing grammar rules (down to 1-2), and reducing the duration of audio and video content (recording up to +/- 3 minutes). These compression strategies not only facilitate a more digestible and learner-friendly experience but also emphasise the strategic selection and prioritisation of linguistic elements to enhance comprehension and retention (Karasik, 2023).

This 'briefness' is due to the 'briefness' of the focus of attention of modern students: regardless of age, it is increasingly difficult for a person to keep a long focus. While struggling with this appears practically useless, a much more effective perspective would be to learn how to work within this 'brevity'. For example, in one of the lessons (60 minutes) with a group of students of five people (45+), we study one word *reason* from different angles: as a countable and uncountable noun; with the preposition *for* and in the construction with the infinitive, as well as in idiomatic expressions. An illustrative educational material is something like this: There is a reason for every important thing

that happens. Who would have a reason to make her cry? He had every reason to be upset. He doesn't trust me. With good reason. for some reason (or other); no rhyme or reason.

As a result, students easily memorise two main meanings of a new unit, two grammatical categories and two sentence forms, two idioms. Such micro-content helps to (1) dispense educational material in the style of short and sweet, (2) avoid overloading students with material that they will not work through due to natural neurophysiology, (3) manage attention, (4) gradually develop the skill, and (5) hone in on the core semantic structures, allowing students to discern and internalise the semantic components of two main meanings per new unit, comprehend the semantic distinctions within two grammatical categories and sentence forms, and appreciate the semantic richness encapsulated in two idioms (Voevoda, 2020; Hřebačková, 2019; Gribanova & Gaidukova, 2019).

The concern among educators about the potential fragmentation and lack of systematicity in microlearning is a valid consideration. Traditionally, teaching methods, such as communicative techniques based on comprehensive learning kits, often emphasise establishing connections between thematic blocks, integrating various lexical and grammatical sections to create a cohesive learning experience. In contrast, microlearning operates on a different principle where consistency is derived from the deliberate development of a specific skill. This consistency is nurtured through regular, frequent engagements and a carefully structured learning process.

Contrary to initial impressions, the fragmentation inherent in microlearning does not equate to a simplification of methodological strategies; rather, it introduces a layer of complexity. This complexity arises from the intentional integration of diverse methods, approaches, and techniques to ensure a holistic and interconnected educational experience. Scholars like Lee et al. (2021) highlight that the micro-content, or 'micronutrients', students consume are intricately woven into the macrostructure, forming a carefully planned instructional framework designed by the teacher.

In essence, while traditional teaching methods often rely on thematic coherence and broad connectivity between linguistic elements, microlearning thrives on the intentional compartmentalisation of content to deliver precise, targeted learning experiences. This deliberate fragmentation aims to address specific skills or language components systematically, allowing students to build proficiency in a more focused manner (Burrini, 2022). This shift from a macro-level interconnectedness to micro-level granularity requires a shift in pedagogical mindset, emphasising the synergies within the carefully orchestrated microlearning structure. The teacher's role becomes central in planning and executing the integration of these micronutrients into the broader macrostructure, ensuring a comprehensive and effective learning trajectory for the students.

Microlearning draws from diverse sources to create engaging and relevant educational content tailored to the dynamic needs of modern learners. Traditional teaching materials serve as

*'In essence, while traditional teaching methods often rely on thematic coherence and broad connectivity between linguistic elements, microlearning thrives on the intentional compartmentalisation of content to deliver precise, targeted learning experiences. This deliberate fragmentation aims to address specific skills or language components systematically, allowing students to build proficiency in a more focused manner'*

foundational resources, providing structured content aligned with curriculum goals. Complementing these materials, a rich array of online resources, including platforms like *YouTube*, *TED Talks*, *Breaking News English*, and *Engvid*, caters to students' preferences. Leveraging such platforms not only aligns with contemporary learning styles but also exposes students to authentic language use in real-world contexts, enhancing their language acquisition experience.

Authentic resources, such as blogs, online magazines, newspapers, films, and songs, further enrich microlearning content by offering a glimpse into the cultural contexts and current linguistic trends of the target language. This exposure goes beyond textbook scenarios, immersing learners in the evolving and authentic language landscape. Additionally, incorporating timely and contextually relevant buzzwords, such as 'social-distancing', 'self-isolation', 'lockdown', 'telework', and 'predator-free', ensures that students engage with vocabulary and grammatical structures reflecting the contemporary linguistic realities of the language area. This intentional inclusion not only substantially aids in natural memorisation but also effectively activates these linguistic elements within the broader language framework (Al-sharhani et al., 2023).

A noteworthy aspect of microlearning content formation is the consideration of words from the student's personal discourse in their native language. Recognising that students often use certain expressions automatically in their daily conversations, instructors can strategically incorporate these familiar phrases into microlearning lessons (Lebedeva & Novikova, 2023). For instance, if a student frequently uses the phrase 'not bad, it can get worse', the inclusion of 2-3 expressions with similar semantics becomes a valuable pedagogical strategy. This personalised approach accentuates vocabulary that is closer to the student's linguistic comfort zone, significantly increasing the likelihood of successful memorisation.

Crucially, microlearning empowers students by granting them the autonomy to choose content that aligns with their interests and preferences. This element of choice not only enhances student involvement but also contributes to more effective memorisation as learners are more likely to engage with content that resonates with their individual learning styles and interests. In essence, microlearning's flexibility and adaptability, coupled with a diverse array of content sources, create a dynamic and student-centred language learning experience.

The next step in lesson planning is to establish the competency or skill to be trained in class. Microlearning works great with mono-lessons that focus on practising a specific skill, or lessons that train a maximum of two skills, such as reading and speaking, speaking and listening, listening and writing. Then there is a selection of language units, grammatical material, and a determination of what will be the main thing in the lesson and what will be background, for example, the word *reason* is the main one, and its synonym *objective* is background. The main word goes to the active vocabulary, and the background – to the passive vocabulary. This is the natural process of in human neurophysiology.

#### 4. PRACTICAL APPLICATION

##### 4.1. How are exercises and various forms of activity organised in the classroom?

Within the proposed instructional approach, we integrate standard exercise types rooted in the communicative methodology framework. The distinguishing feature lies in our deliberate focus on tailoring these exercises to specific skills designated for each lesson, incorporating carefully chosen educational micromaterial into the practice. This adaptation aligns with the principles of microlearning, aiming to avoid overwhelming lessons with a multitude of exercise formats and activities. For adult students, maintaining a connection with the core learning objectives is crucial, as excessive variety may lead and most often does lead to a loss of focus on the essential elements, significantly diminishing the educational impact while potentially heightening the entertainment aspect.

This section looks into the structure of a microlearning-oriented lesson designed for our target audience, considering individuals aged 35 and above from diverse professional backgrounds. The lesson spans 60 minutes and occurs three times a week, accommodating the schedules and preferences of adult learners. The programme is specifically tailored to levels A2-B1, focusing on refining basic communication skills in everyday situations of interpersonal interaction.

The microcontent chosen for this lesson revolves around words containing the semantic component SELF, providing a thematic coherence that enhances contextual understanding. The following microtasks are crafted to scaffold the learning process.

1. Update and repeat the vocabulary of previous lessons. Commencing with a review of prior lessons, this task ensures that learners revisit and reinforce previously acquired vocabulary, fuelling retention and continuity.

2. Get acquainted with the semantic component SELF and its range of use. Learners study the semantic implications of the chosen component, expanding their understanding of its usage across various contexts.

3. Create a joint list of words containing the semantic component SELF. Students collectively generate a list of words incorporating the semantic component SELF, encouraging collaborative learning and shared exploration of the language.

4. Conduct a conscious (focused) work with a mistake. Each student is assigned a 'yellow card' with a specific 'favourite mistake' to address during the lesson autonomously. This approach promotes a heightened awareness of individual errors to support self-correction without direct teacher intervention.

The primary skill targeted in this microlearning lesson is speaking, emphasising the development of the ability to consciously control one's mistakes. This strategic focus aligns with the overarching goal of boosting communication skills in practical, everyday scenarios. Importantly, the type of homework assigned is tailored to the time constraints of adult learners, centring on the repetition of entries in a language diary. This diary serves as a personalised tool for reinforcement and reflection and enables students to consolidate their learning in a manageable and sustainable manner.

The proposed microlearning approach carefully balances content, tasks, and skill development to cater to the specific needs and preferences of adult learners while maintaining a focus on effective language acquisition and application in real-world contexts.

#### 4.2. Lesson procedure

##### 1. Short talk (about 20 minutes).

In the initial phase of the lesson, a purposeful greeting sets the stage for a structured exploration of the semantic component SELF. The teacher initiates the interaction by prompting each participant to introduce themselves, emphasising the incorporation of words enriched with the semantic component SELF. Examples such as *self-employed*, *self-confident*, *self-driven*, and *self-motivated* are employed to encourage a thematic coherence in self-presentations. This intentional linguistic choice serves to break the ice and instil a focused awareness of the targeted semantic element.

As the students engage in self-introductions, the teacher assumes the role of an observer, monitoring their reactions to one another's speeches. This observant stance allows the instructor to gauge the assimilation of the semantic component within the conversational context.

Following the individual introductions, the teacher transitions the interaction to a dynamic phase by encouraging students to pose questions based on the information gleaned from their peers. This interactive exchange substantially reinforces effective communication skills and further prompts students to engage with the targeted semantic component in the context of real-time conversation.

Simultaneously, the teacher participates in the dialogue by formulating questions that extend the thematic exploration. Questions revolving around terms like self-help industry, self-presentation, self-training, self-esteem, self-evaluation, and self-control are incorporated to add depth to the conversation. In cases where a term's meaning is not entirely clear, the teacher provides explanatory comments to ensure a comprehensive understanding among the students and build an environment of collaborative learning.

Having facilitated this conversation, the teacher transitions to the instructional phase by informing the students that the focus of the lesson is the semantic component SELF. This deliberate revelation serves as a contextual bridge that aligns the preceding conversational exploration with the structured thematic work planned for the rest of the lesson.

2. Acquaintance with the semantic component SELF and its range of use (about 20 minutes).

Building upon the foundation laid in the initial phase, the lesson progresses with the exploration of the semantic component SELF, spanning approximately 20 minutes. The teacher elucidates that English boasts an array of words containing the semantic essence of SELF, aligning with the Russian term *сам*. This linguistic correspondence emphasises the importance of comprehension over direct translation.

To exemplify the expansive reach of SELF, the teacher presents a selection of English words resonating with the semantic component, juxtaposing them with their Russian equivalent, *сам*. This analysis exposes the subtleties of language and the varied contextual aspects encapsulated in each term. Examples such as *selfie*, *self-made*, *self-help*, *self-drive*, *self-care*, *self-control*, and *self-checking* are highlighted, infusing the lesson with practical, real-world applications.

Following this introduction, the lesson takes a reflective turn as the teacher engages students in identifying English words with the semantic component SELF that may have counterparts in their native language. This exercise reinforces linguistic connections and encourages students to recognise the semantic richness embedded in their linguistic repertoire. The teacher, further enhancing linguistic engagement, demonstrates a curated collection of words containing SELF from previous lessons. This approach breathes new life into familiar vocabulary creating a sense of continuity and familiarity.

The exploration continues with an associative exercise prompting students to conjure English words linked to both positive ('+') and negative ('-') contexts when SELF is invoked. This exercise serves as a catalyst for the revival of past micro-contents and stimulates the retrieval of learned vocabulary in varied contextual dimensions. Words such as *autonomy*, *motivation*, *independence*, *responsibility* (in the positive context), and *selfishness*, *narcissism* (in the negative context) prompt a dual exploration of the semantic spectrum.

In a personalised twist, students are encouraged to select a favourite and an unloved word containing SELF. This deliberate choice not only taps into individual preferences but also serves as a means of updating and personalising the discussed vocabulary for spontaneous conversation in subsequent lessons.

To fortify understanding, the teacher culminates this phase by presenting a series of sentences (4-6 pieces) crafted to highlight fluency in comprehending words with SELF in context. These sentences, ranging from the *self-taught amateur psychologist* to the *self-centred individual*, offer glimpses into the applications of the semantic component SELF, further anchoring its use within the linguistic landscape of the lesson.

3. Final practice of the semantic component SELF in speech (about 20 minutes).

In the culminating phase of the lesson, lasting around 20 minutes, students engage in a final practice session, solidifying their understanding of the semantic component SELF through active speech. The teacher orchestrates this segment by posing a series of questions, integrating words embodying the semantic essence of SELF, with a particular emphasis on the term *self-taught*. This interactive dialogue encompasses various contexts, ensuring a comprehensive exploration of the semantics associated with the chosen words. The focal point on *self-taught* prompts a range of thought-provoking questions that invite students to reflect on individual opinions. Sample questions include: 'Can we effectively learn languages through self-study?' 'What criticisms or challenges do self-help books pose?' 'Have you ever grappled with self-doubt?' 'How do self-driving cars ensure safety?' and 'Do you consider yourself a self-driven person?' These questions are designed to elicit diverse responses, encouraging

students to articulate their thoughts, experiences, and perspectives. The inclusion of the word *self-taught* not only refines linguistic proficiency but also lays the foundation for a deeper exploration of the broader implications associated with autonomy and individual-driven learning. Through this conversational exercise, students actively apply the semantic component SELF in context, honing their ability to integrate these terms into coherent and meaningful speech. The teacher's role in this phase transcends that of an instructor, evolving into a facilitator of meaningful discourse that empowers students to navigate linguistic complexities with confidence. As the lesson concludes with this final practice session, students leave with a heightened awareness of the semantic component SELF and its applications in real-world language usage. This engagement serves as a capstone to the lesson that reinforces the thematic focus on SELF and provides students with a practical foundation for continued language exploration and mastery. As a result, the outline of the lesson is built from and around one semantic component (Table 1).

Table 1  
Outline of lesson procedure

STAGE	ACTIVITIES	DURATION	DESCRIPTION
Short Talk	Greeting and introduction, self-introductions with words containing SELF	Approx. 20 min	Teacher observes reactions, prompts questions, and participates in the dynamic conversation focusing on SELF
Acquaintance with SELF	Expanding semantic understanding, identifying words with SELF, associative exercise, selection of favourite and unloved words, fluency sentences	Approx. 20 min	Teacher emphasises English words with SELF, explores positive/negative contexts, and encourages student selection of words. Sentences demonstrate fluency with SELF in context.
Final Practice	Active speech engagement, answering questions with SELF	Approx. 20 min	Students engage in final practice, answering questions with words embodying SELF, focusing on <i>self-taught</i> . Teacher facilitates meaningful discourse, empowering students in linguistic complexities.

## 5. DISCUSSION

The aim of this study was to investigate the efficacy of integrating microlearning principles into the andragogical framework for teaching English as a foreign language in supplementary education. The study specifically focused on adult learners enrolled in a university-based additional education programme, with language proficiency at the A2-B1 level. The instructional approach centred around 60-minute classes held three times a week, employing internally segmented 20-minute periods to align with adult neurophysiology principles.

The integration of microlearning principles in the instructional approach was grounded in the recognition of the digital generation's cognitive characteristics, emphasising simultaneous

perception, clip-like thinking, and attention deficit. By adopting a deliberate segmentation of the lesson, the study sought to address the limited attention span of adults, aiming to enhance information absorption while preventing cognitive overload.

The practical application of microlearning principles involved a carefully structured lesson plan. The microcontent chosen for the lesson focused on words containing the semantic component SELF, providing thematic coherence and contextual understanding. Microtasks, such as updating and repeating vocabulary, acquainting learners with the semantic component SELF, creating a joint list of relevant words, and conducting conscious work with mistakes, were designed to align with microlearning principles.

The lesson structure was designed to cater to the unique needs of adult learners, aged 35 and above, from diverse professional backgrounds. The incorporation of microtasks facilitated a balance between content, tasks, and skill development to ensure that the educational impact was not compromised by excessive variety. This deliberate choice acknowledged the importance of maintaining a connection with core learning objectives, preventing a potential loss of focus on essential elements, and, crucially, avoiding a disproportionate emphasis on entertainment over educational outcomes.

The lesson procedure followed a coherent progression, starting with a short talk that incorporated self-introductions enriched with the semantic component SELF. This introductory phase not only broke the ice but also set the thematic tone for the lesson. The subsequent phases involved a detailed exploration of the semantic component SELF, including an examination of its range of use, collaborative word generation, and conscious work with individual mistakes. The chosen semantic theme, SELF, served as the central thread integrated throughout the lesson to afford a unified focus for the microlearning experience.

The study embraced andragogical principles by acknowledging the diverse professional backgrounds and preferences of adult learners. The lesson's flexibility, accommodating the schedules of busy adults, was evident in its three-times-a-week frequency. The tailored approach to levels A2-B1 ensured relevance to the participants' language proficiency, focusing on refining basic communication skills in everyday situations.

Furthermore, the choice of microcontent with the semantic component SELF was strategic in catering to the linguistic needs and preferences of the target audience. The thematic coherence facilitated contextual understanding and linguistic engagement, aligning with andragogical tenets that emphasise relevance and immediate applicability.

The study's findings have several implications for language education in supplementary settings. The successful application of microlearning principles suggests that this approach can ameliorate the language learning experience for adults, especially in non-linguistic universities. The deliberate focus on brevity, repetition, and thematic coherence addresses the challenges posed by limited time, lower language proficiency levels, and potential demotivation commonly encountered in non-linguistic disciplines.

The results also highlight the adaptability of microlearning in managing attention effectively, making it not only an educational strategy but also a therapeutic technique. This dual role positions microlearning as a valuable tool for adult learners navigating a digitally saturated environment.

However, further research is warranted to explore the long-term effects of microlearning in language acquisition and its applicability across different proficiency levels. Additionally, investigating the transferability of microlearning principles to other language components and exploring variations in thematic coherence could provide a more comprehensive understanding of the approach's potential.

## 5. CONCLUSION

The study aimed to address the contemporary challenges posed by the digital generation's cognitive characteristics, seeking to enhance the language learning experience for adult learners enrolled in a university-based additional education programme. The study's primary findings pointed to the unambiguous effectiveness of microlearning principles in catering to the unique needs and characteristics of adult learners. The deliberate segmentation of lessons, focusing expressly on brevity, repetition, and thematic coherence, aligned with the universally defined cognitive characteristics of the digital generation. The chosen semantic theme of SELF provided a vectored unified focus, fostering contextual understanding and linguistic engagement among participants involved.

Notably, the research distinctively demonstrated that the incorporation of microlearning principles palpably contributed to increased student activity and engagement in the language learning process. The emphasis on conscious error analysis sessions, collaborative word generation, and contextual exploration of the semantic component SELF facilitated a holistic language learning experience. The study's results suggested that microlearning, with its tailored, time-efficient, and motivational features, stands as a promising solution for enhancing linguodidactics in non-linguistic universities, addressing widely persistent constraints such as limited time, lower language proficiency levels, and motivational hurdles.

The successful application of microlearning principles suggests that this pedagogical approach holds promise in adapting to modern learning environments. The findings imply that microlearning can be a beneficial tool for optimising adult language acquisition, offering a flexible and effective strategy for addressing the challenges faced in supplementary and further education. The adaptability of microlearning to diverse professional backgrounds and schedules positions it as a valuable asset for adult learners navigating the complexities of modern life.

The research outcomes also have broader implications for educational institutions seeking out innovative strategies. Integrating microlearning principles into language instruction can potentially transform the learning experience, making it more engaging, relevant, timely, and aligned with the expectations of the digital generation. The emphasis on short, focused, and repetitive activities addresses the widely and universally recognised needs of adult learners in non-linguistic disciplines, ensuring that language acquisition remains achievable, motivating, and coherently integrated into their busy academic, professional and personal schedules.

Further research is warranted to investigate the long-term effects of microlearning on language acquisition and its applicability across different proficiency levels. Exploring variations in thematic coherence and transferability to other language components could provide a better understanding of the approach's versatility. Additionally, considering the evolving framework of digital education, further studies could examine the integration of technology and microlearning in language instruction.

## References

- Akopova, A. S. (2023). English for Specific Purposes: Tailoring English language instruction for history majors. *Training, Language and Culture*, 7(3), 31-40. <https://dx.doi.org/10.22363/2521-442X-2023-7-3-31-40>
- Akrim, M. (2018, July). Media learning in digital era. In *Proceedings of the 5th International Conference on Community Development (AMCA 2018)* (pp. 458-460). Atlantis Press. <https://dx.doi.org/10.2991/amca-18.2018.127>
- Alsharhani, H. K., Ghonsooly, B., & Meidani, E. N. (2023). Probing the relationship among reading anxiety, mindfulness, reflective thinking, and reading comprehension ability of Iraqi intermediate and advanced EFL learners. *Training, Language and Culture*, 7(3), 9-22. <https://dx.doi.org/10.22363/2521-442X-2023-7-3-9-22>
- Avramenko, A. P. (2020). Individualization of the process of foreign language lexical competence formation based on microlearning. *Tambov University Review. Series: Humanities*, 25(184), 25-34. <https://dx.doi.org/10.20310/1810-0201-2020-25-184-25-34>
- Bruck, P. A., Motiwalla, L., & Foerster, F. (2012). Mobile learning with micro-content: A framework and evaluation. In *Proceedings of the 25th Bled eConference* (pp. 527-542). University of Maribor.
- Burrini, E. (2022). Approaching error in foreign language teaching (Italian) applying the communicative method. *Issues of Applied Linguistics*, 48, 75-96. <https://dx.doi.org/10.25076/vpl.48.04>
- Dolasinski, M. J., & Reynolds, J. (2020). Microlearning: A new learning model. *Journal of Hospitality & Tourism Research*, 44(3), 551-561. <https://dx.doi.org/10.1177/1096348020901579>
- Efremova, N., Finko, M., Gerasin, P., & Knyazeva, Y. (2023). Features of project-modular education for agro-industrial complex. In A. Beskopylny, M. Shamtsyan, & V. Artiukh (Eds.), *International Scientific Conference on Agricultural Machinery Industry Interagromash 2022* (pp. 1243-1254). Springer. [https://dx.doi.org/10.1007/978-3-031-21219-2\\_140](https://dx.doi.org/10.1007/978-3-031-21219-2_140)
- Gallardo-Echenique, E. E., Marqués-Molíás, L., Bullen, M., & Strijbos, J. W. (2015). Let's talk about digital learners in the digital era. *International Review of Research in Open and Distributed Learning*, 16(3), 156-187. <https://dx.doi.org/10.19173/IRRODL.V16I3.2196>
- Gribanova, T. I., & Gaidukova, T. M. (2019). Hedging in different types of discourse. *Training, Language and Culture*, 3(2), 85-99. <https://dx.doi.org/10.29366/2019tlc.3.2.6>
- Grishechko, E. G. (2023). Language and cognition behind simile construction: A Python-powered corpus research. *Training, Language and Culture*, 7(2), 80-92. <https://dx.doi.org/10.22363/2521-442X-2023-7-2-80-92>
- Hřebacková, M. (2019). Teaching intercultural communicative competence through virtual exchange. *Training, Language and Culture*, 3(4), 8-17. <https://dx.doi.org/10.29366/2019tlc.3.4.1>
- Karasik, V. I. (2023). Evaluative asymmetry of a partial quality. *Key Issues of Contemporary Linguistics*, 2, 62-70. <https://doi.org/10.18384/2310-712X-2023-2-62-70>
- Lebedeva, A. A., & Novikova, M. G. (2023). Sociocultural and pragmatic adaptation in translation: discourse and communication approach. *Key Issues of Contemporary Linguistics*, 2, 84-97. <https://dx.doi.org/10.18384/2310-712X-2023-2-84-97>
- Lee, Y. M., Jahnke, I., & Austin, L. (2021). Mobile microlearning design and effects on learning efficacy and learner experience. *Educational Technology Research and Development*, 69(2), 885-915. <https://dx.doi.org/10.1007/s11423-020-09931-w>
- Malyuga, E. N., & Akopova, A. S. (2021). Precedence-setting tokens: Issues of classification and functional attribution. *Training, Language and Culture*, 5(4), 65-76. <https://dx.doi.org/10.22363/2521-442X-2021-5-4-65-76>
- Malyuga, E. N., & McCarthy, M. (2021). 'No' and 'net' as response tokens in English and Russian business discourse: In search of a functional equivalence. *Russian Journal of Linguistics*, 25(2), 391-416. <https://dx.doi.org/10.22363/2687-0088-2021-25-2-391-416>
- Mohammed, G. S., Wakil, K., & Nawroly, S. S. (2018). The effectiveness of microlearning to improve students' learning ability. *International Journal of Educational Research Review*, 3(3), 32-38. <https://dx.doi.org/10.24331/ijere.415824>
- Nikou, S. A., & Economides, A. A. (2018). Mobile-based micro-learning and assessment: Impact on learning performance and motivation of high school students. *Journal of Computer Assisted Learning*, 34(3), 269-278. <https://dx.doi.org/10.1111/jcal.12240>
- Sibul, V. V., Vetrinskaya, V. V., & Grishechko, E. G. (2020). Study of precedent text pragmatic function in modern economic discourse. In E. N. Malyuga (Ed.), *Functional approach to professional discourse exploration in linguistics* (pp. 131-163). Springer. [https://dx.doi.org/10.1007/978-981-32-9103-4\\_5](https://dx.doi.org/10.1007/978-981-32-9103-4_5)
- Souza, M. I. F., & Ferreira do Amaral, S. (2014). Educational microcontent for mobile learning virtual environments. *Creative Education*, 5(9), 672-681. <https://doi.org/10.4236/ce.2014.59079>
- Voevoda, E. V. (2020). Intercultural communication in multicultural education space. *Training, Language and Culture*, 4(2), 11-20. <https://dx.doi.org/10.22363/2521-442X-2020-4-2-11-20>