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CREATING AND APPLYING SHORT, FOCUSED LEARNING BLOCKS FOR OPTIMIZING THE LEARNING PROCESS

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Abstract: The article examines the concept of short, focused learning blocks, often referred to as microlearning, as an effective approach to optimizing the process of acquiring knowledge and skills in the conditions of the modern information society. It analyzes the cognitive and psychological prerequisites for the effectiveness of this format, its design principles, key advantages, and areas of application. The importance of clear goal setting, conciseness of presentation, diversity of formats, and integration of feedback mechanisms when creating such modules is emphasized. The conclusion is drawn about the prospects of microlearning for the corporate sector, formal education, and continuous professional development.

Keywords: microlearning, short learning blocks, learning optimization, cognitive load, attention, knowledge acquisition, corporate training, online education.

Introduction

The modern world is characterized by an exponential growth in the volume of information and an acceleration of the pace of change in all spheres of life. In these conditions, traditional approaches to learning, often involving lengthy lectures or voluminous training courses, face a number of challenges. These include limited time available to learners, reduced ability for sustained concentration due to the specifics of the digital environment ("clip thinking"), and the need for rapid acquisition of relevant, targeted knowledge and skills "just-in-time." Microlearning

emerges as a response to these challenges – an approach based on creating and using short, focused learning blocks aimed at achieving one specific learning goal. The purpose of this article is to analyze the principles of creating and applying such blocks to optimize the learning process.

Main Body

Microlearning, in essence, is an educational strategy that delivers learning content in small, easily digestible portions, which fundamentally distinguishes it from traditional monolithic courses. This strategy is built on several key characteristics that define its format and effectiveness.

First and foremost is **brevity**: the duration of a single learning block usually does not exceed 15 minutes, and often is limited to 2-5 minutes. Such conciseness allows learning to be easily integrated into a busy schedule and corresponds to modern patterns of information consumption, holding the user's attention. For example, instead of an hour-long webinar on new program features, an employee is offered a series of 3-minute video clips, each demonstrating one specific function.

Equally important is the **focus** of each block on one specific topic, idea, skill, or task. This eliminates information overload and allows the learner to concentrate on mastering one element, whether it's a grammar rule, a step in a procedure, or a definition of a term. Thus, a module might be dedicated exclusively to the rules for using a specific article in English, rather than the entire article system at once.

Analysis shows that the value of microlearning also lies in the **autonomy** of the modules. Each block is a self-contained unit of content that can be studied independently of others, although they may be part of a larger program or logical sequence. This provides flexibility in choosing what and when to study, allowing access to a specific module to solve an immediate problem or update knowledge, for example, reviewing a short instruction on operating a cash register before starting a shift.

An important aspect is the **accessibility** of the content. Microlearning modules are often optimized for consumption on various devices, especially mobile ones, allowing learning anytime and anywhere – during commutes, breaks, or directly at the workplace. Imagine an engineer on site who can quickly open a short video guide on equipment setup on their smartphone.

Finally, microlearning actively uses a **variety of formats** to present content, moving away from monotony. These can be short videos, interactive simulations, infographics, podcasts, tests, or even small games. This approach not only makes learning more engaging but also caters to different learning styles: some find it easier to absorb data from an infographic, while others prefer interactive tasks. The combination of these characteristics – brevity, focus, autonomy, accessibility, and variety of formats – defines the essence of microlearning as a flexible and effective knowledge delivery strategy.

The underlying reasons for the effectiveness of short learning blocks lie in their alignment with fundamental **cognitive and psychological principles** of human information processing. The modern digital environment has accustomed us to rapid switching and short bursts of attention, so the microlearning format, offering content in concise portions, naturally **corresponds to these shortened concentration cycles**.

Instead of trying to maintain focus throughout an hour-long lecture, which becomes an overwhelming task for many, a learner can fully concentrate on a 5-minute module, effectively absorbing its content. A key success factor is the **reduction of cognitive load**. Cognitive Load Theory (Sweller, 2020) states that our working memory has limited resources.

By offering a small, clearly focused amount of information for processing at one time, microlearning avoids overloading working memory. This is akin to assembling a complex mechanism using very detailed, step-by-step instructions,

where each step is clear and understandable, unlike trying to grasp everything at once from a general diagram – the latter inevitably leads to confusion and errors. Mastering one specific rule or procedural step within a short module is much more effective than trying to cover multiple topics simultaneously.

Furthermore, microlearning positively impacts **motivation and engagement**. The ability to quickly complete a learning block and immediately receive confirmation of success, for example, by passing a short quiz or completing an interactive task, creates a sense of rapid progress and achievement. This feeling of a "small victory" stimulates continued learning and increases self-confidence, unlike long courses where results are delayed and may seem unattainable.

Finally, the format of short modules is ideally suited for implementing the **principle of spaced repetition** (Kang, 2021), considered one of the most effective methods for long-term memorization. Learners can easily revisit completed short blocks at specific intervals to review and reinforce the material, whether it's repeating a list of foreign words or rewatching a video tutorial on a rarely used function. Thus, the synergy of matching attention spans, reducing cognitive load, increasing motivation through quick results, and supporting spaced repetition makes short learning blocks a powerful tool for deep and lasting knowledge acquisition.

Creating high-quality short learning blocks is not just about breaking down a large course into parts, but a **thorough process of instructional design** that requires adherence to several key principles. The foundation of any effective module is a **clearly formulated learning objective**. It is necessary to define precisely what the learner should know or be able to do after completing this specific block. The objective should not be vague ("learn about sales"), but specific, measurable, achievable, relevant, and time-bound (SMART), for example: "After completing the module, the employee will be able to name 3 key benefits of the new product X to a client in 1 minute."

Such clarity guides both content development and learner expectations. Inextricably linked to the objective are the **conciseness and relevance** of the information. Given the brevity of the module, it is crucial to cut out everything superfluous, all the "fluff," and present only the information that directly contributes to achieving the stated objective. If the module is dedicated to active listening techniques, a historical overview of communication theories would be excessive; specific techniques and examples of their use are needed.

The next principle is the choice of an **engaging format**. Since the module is short, it must capture attention immediately. Instead of dry text, one can use a short dynamic video, an interactive infographic where the user clicks on elements to learn more, or a small simulator for practicing a skill. For example, for teaching fire safety rules, a short interactive scenario with choices of action is much more effective than simply text instructions. The choice of format depends on the content, target audience, and technical capabilities, but should always strive for maximum clarity and interactivity.

It is also important to demonstrate the **practical applicability** of the knowledge or skills. The learner must understand how they can use the acquired information in their work or life. A module on handling customer objections should include not only theory but also examples of dialogues or even the opportunity to practice in a virtual dialogue.

A key element that closes the learning cycle within the module is the **assessment of learning**. This does not necessarily have to be a formal exam; a short quiz of 2-3 questions, a small practical task ("write down three key points," "apply the formula to the problem"), or even a question for self-reflection ("How will you apply this tomorrow?") is sufficient. Such assessment provides immediate feedback to both the learner (did they understand the material?) and the system (was the module objective achieved?).

Finally, if the short blocks are part of a larger educational program, their **logical coherence** must be ensured. Although each module is autonomous, the overall structure of the course, the sequence of topics, and the interconnections between them should be clear. This can be implemented through a visual course map, brief introductions and conclusions in the modules linking them to previous and subsequent topics. Only the comprehensive observance of these principles allows for the creation of truly effective short learning blocks that optimize the learning process.

Practice analysis shows that the application of short learning blocks provides a whole range of tangible **advantages** for both learners and organizations. One of the main benefits is **flexibility**: employees or students can master the material at their own pace, at a convenient time and place, using available devices, whether it's a computer at work or a smartphone on the way home. This is especially valuable for people with irregular schedules or high workloads.

Time saving is also significant: short modules require less study time compared to traditional formats, and for developers, updating or creating such blocks is often faster and cheaper than reworking voluminous courses. Imagine how much easier it is to update a 5-minute video about a new software feature than to re-record an hour-long webinar. Furthermore, as already noted, quick "wins" – the successful completion of short modules – and the use of interactive formats significantly **increase engagement and motivation** for further learning.

Material retention also improves thanks to reduced cognitive load and the ease of implementing spaced repetition of key information. Finally, microlearning is ideally suited for **"just-in-time" performance support**: faced with a work task requiring specific knowledge (e.g., how to process a product return according to new rules), an employee can quickly find and study the relevant short module without getting distracted by searching for the necessary information in lengthy manuals.

Due to these advantages, the **areas of application for microlearning** are extremely broad and continue to expand (Buchem & Hamelmann, 2021). In the **corporate sector**, it is actively used for onboarding new employees (introducing the company, its products, and procedures in small portions), for product and service training, developing both "hard" skills (e.g., operating new equipment) and "soft" skills (communication, time management), as well as for mandatory briefings, such as safety instructions.

In **formal education**, micromodules can serve as an effective supplement to main lectures and seminars, helping to reinforce material, prepare for exams, or delve deeper into specific complex topics. In **informal learning and self-development**, short blocks are popular on language learning platforms (e.g., daily 5-minute vocabulary lessons), software mastery (short video tutorials on specific functions), or acquiring any other skills in a convenient format. Essentially, any field requiring rapid, flexible, and effective acquisition of specific knowledge or skills is a potential area for applying this educational strategy.

Conclusion

Short, focused learning blocks represent a powerful tool for optimizing the learning process in today's dynamic environment. Their effectiveness is due to their alignment with the cognitive characteristics of human information perception, flexibility, and the ability to provide knowledge "just-in-time." However, the success of this approach directly depends on the quality of instructional design, the clarity of goal setting, and the thoughtfulness of the content of each module. One can confidently predict the continued growth in popularity of microlearning in both the corporate sector and the education system, as it meets the key needs of modern learners for accessible, relevant, and easily digestible knowledge.

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