

**PSYCHOLOGICAL ASPECTS OF BLENDED LEARNING IN UKRAINE:
SUPPORTING STUDENT INTEREST AND MOTIVATION TO ACHIEVE
LEARNING GOALS**

*ASPECTOS PSICOLÓGICOS DA APRENDIZAGEM COMBINADA NA UCRÂNIA:
PROMOVENDO O INTERESSE E A MOTIVAÇÃO DOS ALUNOS PARA ATINGIR
OS OBJETIVOS DE APRENDIZAGEM*

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ABSTRACT

The article emphasizes the crucial psychological factors involved in the integration of blended learning within contemporary education. Blended learning amalgamates conventional and online teaching approaches, emerging as a progressively pertinent trend in the current educational landscape. The article underscores the significance of grasping the motivational factors impacting students in blended learning. It underscores that effective motivation can enhance learning outcomes and promote greater student engagement in the learning process. Adopting a systems approach enables us to view learning as an interrelated system, fostering a more profound comprehension of how its components interact. The authors demonstrate that studying the psychological aspects of blended learning is an important component of modern educational reform. Understanding the motivation and psychological characteristics of students allows for more effective implementation and support of blended learning, ensuring the quality and effectiveness of education. Their research provides an opportunity to develop effective approaches to teaching and improving student performance in blended education, which, in turn, contributes to improving the quality of education and the development of modern society.

Keywords: Education, Mental Health, Motivation, Resilience.

RESUMO

O artigo destaca os aspectos psicológicos importantes da aplicação da aprendizagem combinada na educação moderna. A aprendizagem combinada combina métodos de ensino tradicionais e on-line, o que está se tornando uma tendência cada vez mais relevante no sistema educacional moderno. Os autores do artigo enfatizam a importância de compreender os fatores motivacionais que influenciam os alunos na aprendizagem combinada. Eles enfatizam que a motivação adequada pode contribuir para melhorar os resultados da aprendizagem e incentivar os alunos a participar mais ativamente do processo de aprendizagem. O uso de uma abordagem sistêmica torna possível considerar a aprendizagem como um sistema interconectado, o que contribui para uma compreensão mais profunda da interação de seus componentes. Os autores demonstram que o estudo dos aspectos psicológicos da aprendizagem combinada é um componente importante da reforma educacional moderna. Sua pesquisa oferece uma oportunidade de desenvolver abordagens eficazes para ensinar e melhorar o desempenho dos alunos no ensino combinado, o que, por sua vez, contribui para melhorar a qualidade da educação e o desenvolvimento da sociedade moderna.

Palavras-chave: Educação, Saúde Mental, Motivação, Resiliência.

Introduction

Today, we can observe a discrepancy between the educational system and the real needs of society. The crisis in higher education is caused by the fact that the information society has already set new pedagogical standards, while the educational system remains designed for an industrial society and is trying to adapt to the changes. Addressing this challenge involves revising educational content. Adaptability in organizational methods and teaching tools, tailored to the specific requirements, objectives, and capabilities, holds significant value across all

educational phases, particularly in the professional training domain. Clearly, to enhance the quality of education, it is imperative to incorporate innovative educational formats, establish a dynamic system, and foster a continuous learning environment.

Blended learning presents a potential solution to this challenge by fostering the development of a conducive learning environment and efficient communication systems that deliver essential educational content. Furthermore, blended learning aligns with contemporary trends, responding to the ongoing modernization of education through digital technologies. Embracing this form of learning becomes a pivotal competitive advantage for higher education institutions.

In recent years, blended learning has become extremely popular, especially in higher education in Ukraine. This is due to a decrease in the number of classroom hours and an increased emphasis on independent learning, which has led to a decrease in the effectiveness of traditional lecture-based learning. Blended learning has become a response to the acute socio-political changes associated with the large-scale military invasion, as it allows part of the learning material to be transferred to an e-course. This model also allows for a varied structure of learning trajectories, as it does not require fully interactive or multimedia courses. It is enough to create textual material, forums, chats, testing, and file-sharing resources (Poperechna, 2022).

Presently, the Ukrainian education system extensively employs diverse distance learning platforms to facilitate remote education. Nonetheless, the integration of these systems into the educational framework poses challenges associated with the nurturing of students' characters and mental well-being. A notable issue arises from the absence of direct interaction with educators and amongst students, impacting the cultivation of a sound psychological state. The solution to this problem can be blended learning technologies that combine face-to-face and distance methods. This combination eliminates the disadvantages and preserves the advantages of both methods.

Blended technologies can be used even in the classroom if the teacher interacts with students through an electronic information and education

environment, for example, for feedback, assessment of learning outcomes, discussion of materials, and file sharing. Simultaneously, the overarching psychological perspective acknowledges effective communication as meaningful only when it fosters the personal and spiritual growth of those involved. However, the socio-psychological analysis of this problem takes into account the situational aspects of communication, in particular the communication problem that the subject of communication is solving.

An example of a successful implementation of blended learning is the concept of the “flipped classroom”. Under this concept, students first master theoretical material through electronic resources and then engage in practical work and discussions in class. This allows teachers to better organise learning and engage students in various types of work, which contributes to the development of their communication competence. Interaction between the teacher and students is an integral part of harmonious psychological development, and the use of blended learning technologies contributes to this goal. These changes allow us to judge the effectiveness of this technology, as it enriches the educational process with a better communicative dimension and changes the structure of students' work, promoting active communication. Thus, the balanced use of blended learning components contributes to enriching the educational process with better communicative interaction (Polishchuk et al., 2022).

When considering the psychological aspects of blended education, attention should be paid to the issue of student motivation. Motivation is a critical aspect of successful learning. The use of blended learning can create additional challenges and opportunities for motivating students to achieve their learning goals (Shchyrbul et al., 2022).

Above all, blended learning can promote greater individualisation and flexibility, allowing students to choose the pace and mode of learning that best suits their needs and learning style. This can increase students' autonomy and give them more control over the learning process, which can stimulate their motivation. There is also the possibility of using a variety of methods and resources in blended learning, such as video lectures, interactive assignments, forums, etc. This allows for

more opportunities for various integrations and the creation of interesting learning experiences (Kuchai et al., 2022).

The study centers on the psychological dimensions of blended learning within the context of Ukraine. It explores how blended learning influences student engagement and motivation towards attaining educational objectives. The main aspects of the study are:

1. Analyse how widely and successfully blended learning is used in Ukraine, especially in the context of higher education. Tracking what tools and approaches are used to increase student motivation.

2. Consideration of how blended learning affects student engagement in the learning process. Does this methodology help to increase interest in academic subjects and increase student engagement?

3. To study whether the approach helps to maintain or increase students' motivation to achieve their learning goals. Whether this approach helps to maintain and strengthen students' academic motivation.

The primary focus of this investigation is to recognize and comprehend the influence of blended learning on students' interest and motivation to attain learning objectives within the framework of the Ukrainian higher education system. Specifically, there is a crucial need to identify the particular psychological processes and mechanisms that either positively or negatively impact student engagement and motivation in the context of blended learning. The study also seeks to consider potential individual and contextual variations among students and educators that may affect the outcomes.

The research hypothesis can be articulated as follows: Blended learning in Ukraine positively affects students' interest in learning and their motivation to achieve educational objectives. This positive impact is attributed to the active interaction of students with learning materials, the provision of opportunities for personalized learning, and the enhancement of communication competence. The primary goal of the study is to pinpoint the specific psychological mechanisms that underlie this influence and to formulate practical recommendations for the optimal integration of blended learning in the Ukrainian higher education system. In

essence, the hypothesis posits that blended learning will enhance student motivation and interest in learning by activating psychological mechanisms during the learning process.

The primary objective of this research is to assess how blended learning influences students' levels of interest and motivation in attaining educational objectives within the Ukrainian education system. The research seeks to explore the psychological factors that play a role in this impact, taking into account the distinct characteristics of students and the particular context of the educational setting in Ukraine.

Based on the focus, problem, and purpose of the study, and considering the hypothesis, the following research objectives can be formulated:

1. Analyse the features of blended learning.
2. To study the psychological aspects of motivation formation in blended learning.
3. Consider ways to increase motivation in blended learning.

Theoretical Framework or Literature Review

Studying the work carried out in previous years in the context of the chosen topic is an important step in the research process. It allows us to reflect on and assess the current state of awareness in the field and to understand what aspects have already been covered. Firstly, it helps to avoid duplication of previous research and to identify niches where there are still aspects of the topic that are not sufficiently covered. Secondly, the analysis of previous works allows us to update the current state of research and identify potential topics for new works.

Tsekhmister et al. (2021) emphasize the relevance of investigating the influence of digital technologies on the educational process, highlighting it as a priority in modern pedagogical science.

Muraina (2023) conducted a study that explored issues related to misunderstandings in the instruction and learning of computer science among first-year students. The author draws attention to ways to address the issue of their

impact on the learning process. According to the study, it was found that there are certain psychological risks among students that can complicate learning. The author draws attention to the methods and strategies that can be used to address these issues and improve the learning process.

The study conducted by Namestiuk (2022) explored concerns associated with the instruction of psychological and pedagogical subjects in higher education settings through the utilization of immersive technologies. The author focused on the use of immersive technologies to improve the learning process of these disciplines. The article highlights the opportunities provided by immersive technologies for students and teachers, including the possibility of deeper immersion in and interaction with educational material. The author also investigated students' perceptions of this approach to learning and its impact on their academic performance. This study has shown that immersive technologies can be useful for improving the quality of training of future professionals in various fields.

Tsekhmister, Konovalova, and Tsekhmister (2022) examine the quality control of the educational process in a medical lyceum during the COVID-19 pandemic, emphasizing the shift to distance learning. The study, conducted at the Ukrainian Medical Lyceum, assesses the perception of changes brought about by distance technologies and explores the effectiveness of quality control through an analysis of advantages and disadvantages of online learning platforms.

The research conducted by Bieliaieva, Holiad, Dynko, & Mogilat (2023) was centered on the creation and application of a distance learning framework designed to educate future specialists. The researchers delved into the challenges associated with establishing and executing an efficient distance learning system. Their primary focus was on incorporating novel methods to maximize the advantages of distance education. The study revealed that the developed distance learning model holds significant potential for training future specialists, offering a blend of effective learning and convenience for students engaged in remote studies.

The study by Chernova, Nemesh, & Togachynska (2023) highlighted digital approaches in pedagogy and psychology of the future, which are driven by the

challenges of globalisation. The authors analysed current trends in the use of digital technologies in pedagogical and psychological disciplines and highlighted the challenges that arise directly from the process of globalisation. The results show that digital approaches in pedagogy and psychology have the potential to improve learning and development in the future. They allow for the effective use of modern technologies to support the learning process and the development of psychological aspects of education.

A study Chernova, Nemesh & Togachynska (2023) examined digital approaches in pedagogy and psychology of the future and the challenges of globalisation. The authors of the study analysed current trends in the use of digital technologies in pedagogical and psychological disciplines and identified challenges arising from the process of globalisation. The study found that digital approaches in pedagogy and psychology have the potential to improve learning and development in the future. They allow for the effective use of modern technologies to support the learning process and the development of psychological aspects of education.

The research conducted by Chervinska, Melnyk, & Galyuk (2023) delved into the innovative implementation of the blended learning model within Ukrainian higher education institutions. The study focused on scrutinizing the integration of blended learning and its implications for the educational process. The article sheds light on both the advantages and challenges associated with this model, presenting insights into the perspectives of teachers and students regarding blended learning. The findings suggest that blended learning emerges as an innovative strategy for organizing educational activities, offering enhanced accessibility to learning, fostering personalized learning opportunities, and nurturing students' communication skills.

In a related article, Hrechanyk, Koval, Kovalchuk, Slovik, & Zinchenko (2023) direct their attention towards exploring the benefits and various models of employing blended learning technologies in contemporary professional training. The authors conducted a comprehensive analysis of the potential applications of blended learning within the current training landscape, investigating diverse models and approaches to incorporating this technology into educational processes.

Despite the abundance of existing scientific studies on the subject, there remain several unexplored facets. Specifically, limited research has been dedicated to understanding the influence of these teaching methods on the cultivation of students' creativity and critical thinking. It is imperative to ascertain how blended learning can contribute to the development of these crucial skills.

Secondly, little attention has been paid to the effectiveness of different blended learning models for specific learning objectives. Research that focuses on a comparative analysis of different blended learning approaches could provide valuable input into the development of optimal educational strategies. Therefore, it can be said that there is a need for further research to elucidate these aspects in more detail and to expand the understanding of the effectiveness and possibilities of blended learning in the modern educational environment.

Methodology

The research methodology is founded on a series of dialectical principles aimed at uncovering the core of processes, recognizing their modes of expression, and discerning trends for future advancement. This study employs systemic, procedural, and structural-functional approaches, along with techniques such as comparative analysis, deduction, and induction, to attain a more profound insight into the fundamental psychological aspects of blended learning and establish their connection with motivation.

Dialectical principles, as the cornerstone of this methodology, aid in recognizing intrinsic links and discrepancies within the studied processes. Analysing their forms of expression enhances our comprehension of how their components function and interact. The use of a systematic approach enables us to view the research as an interconnected system, thus deepening our understanding of how these components interact and their influence on overall development.

The comparative analysis method is utilized to identify commonalities and distinctions among the various processes under investigation, deduction aids in deducing general patterns from specific instances, and induction permits drawing

conclusions based on observations and data. Generalizing the research findings allows us to formulate novel ideas and concepts for further advancing the phenomena under scrutiny. This approach widens our understanding of the psychological aspects of blended learning and contributes to the continued incorporation and application of this approach in the realm of education.

Results and Discussion

The current stage of society's development is characterised by the complete dominance of digital technologies that have penetrated all spheres of life. This transformation has not spared the education system at all levels. It is known that the introduction of modern digital technologies is an important response to global challenges related to the transformation of the educational system, and this need has been recognised at the state level, including in Ukraine. It is important to strategically combine traditional and online education, with blended learning being one of the options. The experience of the last two years during the full-scale invasion and pandemic has generated considerable interest in blended learning models (Krymets, 2022).

The introduction of blended learning technologies into the educational process has a number of advantages. First, they allow for individualised learning, adapting it to the individual needs and pace of students' work, promote the development of independent and group work skills, and increase students' responsibility for the results of their learning activities. Blended learning technologies also allow for a shift in emphasis from the acquisition of knowledge within a single subject to the development of competencies within a module or curriculum in general.

Blended learning technologies combine digital and traditional teaching methods, each of which has its own advantages and limitations. For example, humanities technologies are characterised by an emphasis on the role of the teacher in selecting learning material and organising lessons in a teacher-student interaction in a subject-subject paradigm. They use traditional teaching methods,

such as lectures, practicals, and labs, and prioritise teacher-student interaction in a classroom environment. Digital technologies, on the other hand, are characterised by a high level of learner autonomy and autonomy in choosing the pace and sequence of learning. They can significantly reduce or eliminate teacher-student contact and use information and communication technologies as the main learning tool and a way of transmitting educational information (Dobrovolska, 2020).

Reduced contact between the teacher and students can have negative consequences, especially in the training of professionals whose work requires active communication with other people, such as teachers, psychologists, social workers, and other specialists. These features lead to the emergence of specific psychological characteristics that are unique to blended learning.

In his work, J. Watson (2008) considers blended learning as a continuum that covers the entire spectrum from fully online learning to traditional face-to-face classes. This continuum of blended learning can be divided into several categories:

1. A distance education program conducted exclusively through online methods, with no in-person interactions.
2. An entirely web-based study program, with the option of occasional in-person study, though not mandatory.
3. A predominantly online curriculum, occasionally featuring in-person study sessions in a classroom or computer lab.
4. A curriculum primarily delivered online, with daily in-person gatherings in a classroom or computer lab.

Traditional classroom learning supplemented by mandatory online elements that enhance the educational experience beyond regular school hours (Polyezhayev, 2020).

The above classification defines a variety of approaches to blended learning and provides an opportunity to choose which format best suits specific educational needs and goals. In turn, when organising blended education, it is important to pay due attention to the psychological state of students for several good reasons.

Firstly, the psychological state of students directly affects their ability to learn and understand the material. Stress, negative emotions, apathy, or low

motivation can make the learning process much more difficult and lead to poorer academic performance. Therefore, understanding the psychological needs and state of students helps educators to adapt curricula and methods to individual needs, ensuring more effective learning (Voropayeva et al., 2022).

Tsekhmister, Vizniuk, Humeniuk, Dolynnyi, and Polishchuk (2022) focus on the experimental exploration of organizational-pedagogical conditions for shaping the professionalism of future medical practitioners. The study, which involves experimenting with the introduction of these methods, reveals enhanced pedagogical skills among medical institution teachers and an activation of practical abilities and skills among future medical workers through simulation modeling in quasi-professional activities.

To achieve successful blended learning, a high degree of self-reliance and inner drive in students is essential. This is because they often need to take charge of their own learning and effectively manage their time. Psychological well-being and intrinsic motivation play crucial roles in ensuring that students are prepared to actively engage in the learning process and attain their educational objectives. Furthermore, considering the mental state of students contributes to the establishment of a positive learning atmosphere where students feel nurtured and motivated to progress. This, in turn, can heighten overall contentment with the learning experience and diminish the risk of student attrition. Therefore, it is imperative to take into account the psychological dimensions of blended learning when crafting a conducive learning environment for students (refer to Table 1).

Table 1 – Psychological aspects of blended learning

Psychological aspect of blended learning	Description
Motivation of students	Blended learning can have an impact on student motivation by creating opportunities for greater self-realisation and individualisation of learning. Students can be more motivated when they see that learning is relevant to their needs and goals.
Structure and organisation of training	The psychological comfort of students can be enhanced by a well-planned and structured blended learning environment. Clearly defined requirements and assignments can reduce stress and help students to better navigate the process.
Interaction with teachers and classmates	It is important to consider the psychological component of collaboration between students and teachers. Blended learning can create opportunities for effective communication and collaboration both online and offline, but it is important to consider the psychological aspects of this interaction.
Self-regulation and independence of students	Blended learning can help develop students' self-regulation and autonomy skills, as they need to be active participants and control their learning process, especially in an online environment.
The influence of technology on the mental well-being of students	The utilization of information and communication technologies, as well as online resources, has the potential to influence the mental well-being of students. It is important to take into account the issues of visual and auditory convenience, as well as the absence of technical problems to ensure the psychological comfort of students.
Perception of learning information	The psychological aspect of perceiving educational information may include individual learning styles and the assimilation of knowledge in different formats. It is important to take into account the diversity of students' perceptions and provide an opportunity to choose a learning format.

Source: Based on Kravchenko et al. (2022)

The motivation to achieve learning goals is one of the types of motivation that determine a person's creative, proactive attitude to work and affect both the nature and quality of learning. The motive to achieve learning goals can be understood as a stable characteristic of a person. This disposition can be defined as a persistent need to achieve results in learning as a desire to do something quickly and well, to reach a certain level in learning activities. This need is generalised and manifests itself in any situation regardless of its specific content. The need to achieve learning goals is characterised by such concepts as learning something difficult; managing ideas; working quickly and efficiently; overcoming obstacles and achieving high performance; improvement; realising talent and increasing self-esteem (Zavalevskyi et al., 2023).

Keeping students motivated helps them to overcome possible difficulties and stress that may arise in blended learning. Changes in teaching approaches and a large amount of independent work can create challenges for students. Support and motivation from teachers and the student community help to overcome these difficulties and maintain interest in learning (Polikhun et al., 2021). Developing and implementing measures to increase motivation to learn is an extremely important element of the educational process, especially in a blended learning environment. Motivated students are more open to new knowledge and are ready to actively participate in learning activities. Personal achievement motivation contributes to increased productivity and quality of learning. Measures to increase motivation (Table 2) help students understand that learning is an important and valuable process for their personal and professional development. They encourage students to set higher goals and take responsibility for their own academic success. In addition, they help to create a positive attitude towards learning and develop an intrinsic need for knowledge.

Table 2 – Measures to increase learning motivation in mixed education

Event	Contents
Developing engaging and relevant online lessons and resources	Creating content that is engaging and relevant to current issues.
Joint projects and collective tasks	Engaging students in cooperation and developing teamwork.
Use of interactive online tools	Use of games, quizzes, webinars, etc. to attract students' attention and interaction.
Provide rewards and recognition for achievements	Establish a system of rewards for success and effort.
Individualisation of the learning process	Promoting students' choice of their own ways to achieve their goals and providing support.
Support for students while working remotely	Establish communication channels for questions and support.
Evaluation and feedback	Provide structured, informative feedback on successes and improvements.
Organising interactive open discussions	Stimulating the exchange of ideas and developing critical thinking.
Training in self-regulation strategies	Developing planning and time management skills to support learning.
Cooperation with psychologists and counsellors	Providing psychological support and counselling to increase motivation.

Source: Based on Kostenko, Ruda, Sofilkanych, & Bokshan (2023).

The key factors influencing the formation and development of students' self-efficacy are the severity of their motivational, cognitive, emotional, and behavioural characteristics. Each of these groups consists of specific influences that can be provided by both teachers during training and students themselves in the process of self-reinforcement.

The study identified the following stages in the process of developing students' motivation to achieve and improve self-efficacy. The first stage involves

the impact of student self-awareness on cognitive aspects. This includes self-knowledge, revision of one's own self-image, creation of an ideal image of "I am a professional" and realistic ideas about oneself. At this stage, the belief in one's own capabilities and conviction in achieving the desired results are also formed.

The second stage involves creating favourable pedagogical conditions for students to set specific goals, develop strategies and tactics to achieve these goals, and actively work towards them. At this stage, self-management is taught and the desire for self-realisation is developed (Haliuk, 2022).

The third stage is associated with creating situations of success that help students to feel increased self-esteem and improve their belief in themselves and their abilities. Emotional evaluation at this stage includes an assessment of the importance of the tasks, confidence in one's own competence, and personal responsibility for the results of one's own activities.

The presence of achievement motivation indicates the degree to which a student is committed to realising his or her potential. It is important to keep in mind that this motivation can be established and strengthened through interaction with teachers and, especially, through their positive attitude towards students during their successes and support in cases of failure.

To develop the achievement motive, students should consider the following aspects:

1. Set realistic but high goals.
2. Understand your strengths and weaknesses.
3. Believe in the effectiveness of your own actions.
4. Identify specific actions and strategies to help achieve the goals.
5. Receive feedback on the results achieved.
6. Take responsibility for your actions and their consequences, as well as for the actions of others (Ivaniuk, Antypin, Venhlovska, Kuzemko, & Savchenko, 2023).

Thus, the development of motivation to achieve educational goals is a process that begins in childhood, continues during the formation of students' professional

identity, and influences their choice of educational path and the process of studying at a higher education institution.

Motivation to achieve learning goals can also develop during professional activities when people experience all the benefits of achieving the desired results. Therefore, it is important to create conditions for the development of this motivation during study and to maintain it during professional growth. To do this, it is necessary to focus not only on developing students' motivation but also on creating an environment for their self-realisation. Adequate achievement motivation can be developed and implemented constructively in the context of interaction between teachers and students, where positive perception of success and support in case of failure are important elements.

The methodological limitations of this study include several key aspects that may affect the validity and overall significance of the results. First, this article is based on a limited amount of sources and literature available to the authors. The study does not cover all possible approaches, theories, and methods related to motivation and psychological aspects of blended learning. Second, the study may have limitations in terms of objectivity. In some cases, the interpretation of the research results may be subjective and depend on the point of view of the authors. To increase the objectivity and generalisability of the results, a wider range of psychological theories and methodologies should have been considered.

Conclusions

The article discusses an important aspect of modern education, namely the relationship between student motivation and performance in the context of blended learning. Attention is focused on the fact that student motivation is a key factor affecting their performance and engagement in learning in a blended learning environment.

It has been determined that blended learning, which combines traditional methods and digital technologies, can be an effective educational tool, but only if

students show a high level of motivation to learn. Thus, it is important to develop and implement measures aimed at increasing students' learning motivation.

The key aspects that influence student motivation in the context of blended learning are highlighted. These include meeting the goals set for students, knowing their own strengths and weaknesses, believing in the effectiveness of their own activities, identifying specific forms of behaviour to achieve goals, receiving feedback on results, and taking responsibility for their actions and their consequences.

It is worth emphasising the importance of teachers' support and positive response to students' successes and support in case of failure. It is noted that the interaction of teachers and students in the context of blended learning should be a collaboration that includes positive expression of approval for success and non-derogatory support in case of failure.

The importance of considering psychological aspects in the context of blended learning should be emphasised. Student motivation is a key factor influencing learning performance and can be enhanced through appropriate interventions and support from teachers. Research into these psychological aspects can contribute to improved teaching methods and performance in blended education.

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