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ФОРМАЛДУУ, ФОРМАЛДУУ ЭМЕС ЖАНА ИНФОРМАЛДЫК ОКУТУУНУН ИНТЕГРАЦИЯСЫ
ИНТЕГРАЦИЯ ФОРМАЛЬНОГО, НЕФОРМАЛЬНОГО И ИНФОРМАЛЬНОГО ОБУЧЕНИЯ
INTEGRATION OF FORMAL, NON-FORMAL AND INFORMAL LEARNING

Кыскача мүнөздөмө: Макалада педагогдордун кесиптик өнүгүү контекстинде формалдуу, формалдуу эмес жана информалдык билим берүүнүн теориялык негиздери жана практикалык мааниси ар тараптуу талдоого алынган. Ошондой эле, бири-бирин толуктоочу билим берүү формаларын айкалыштыруу билим берүүдөгү өзгөрмө кырдаалдарга ыкчам жооп бере ала турган ийкемдүү, көп баскычтуу жана туруктуу квалификацияны жогорулатуу моделин түзүүнүн зарыл шарты экендиги баса белгиленет. Ар бир билим берүү формасынын өзгөчөлүктөрү, артыкчылыктары жана чектөөлөрү, ошондой эле заманбап педагогдун кесиптик компетенцияларын, өз алдынча өнүгүүгө болгон мотивациясын жана адаптациялык потенциалын калыптандырууга кошкон салымы талданат. Эл аралык тажрыйбага өзгөчө көңүл бурулуп, Финляндия, Ирландия, Жаңы Зеландия жана Канаданын практикалык негизинде институционалдык билим берүү, кесиптик тармактар жана өз алдынча билим алуу траекторияларын айкалыштырган интеграцияланган моделдердин эффективдүүлүгү көрсөтүлгөн. Изилдөөнүн жыйынтыктары формалдуу окутуунун, кесиптик коомчулуктардагы катышуунун жана өз алдынча билим алуунун интеграциясы заманбап билим берүүнүн талаптарына жооп бере турган туруктуу үзгүлтүксүз кесиптик өнүгүү системасын түзөрүн тастыктайт.

Аннотация: В статье всесторонне рассматриваются теоретические основы и практическая значимость формального, неформального и информального обучения в системе профессионального развития педагогов. Подчеркивается, что сочетание этих трёх взаимодополняющих форм обучения является необходимым условием формирования гибкой, многоуровневой и устойчивой модели повышения квалификации, способной адекватно реагировать на динамичные изменения образовательной среды. Каждая форма обучения анализируется с позиции её особенностей, преимуществ и ограничений, а также вклада в развитие профессиональных компетенций, мотивации к саморазвитию и адаптивного потенциала современного педагога. Особое внимание уделено международному опыту: примеры из практики Финляндии, Ирландии, Новой Зеландии и Канады демонстрируют эффективность интегрированных моделей, основанных на сочетании институционального образования, профессиональных сетей и самостоятельных образовательных траекторий. Результаты исследования подтверждают, что интеграция структурированного обучения, участия в профессиональных сообществах и индивидуальных форм самообразования способствует формированию устойчивой системы непрерывного профессионального роста, отвечающей требованиям современного образования.

Abstract: This article explores the theoretical foundations and practical significance of formal, non-formal, and informal learning in the context of teachers' professional development. The necessity of integrating these distinct forms of learning is substantiated as a means of establishing a flexible and sustainable professional development system capable of responding effectively to the dynamic challenges of contemporary education. Each form of learning is examined in terms of its characteristics, limitations, and contributions to the formation of professional competencies and adaptive capacity among educators. The study presents international case studies (Finland, Ireland, New Zealand, and Canada) that illustrate the successful implementation of integrated learning models. The findings underscore the critical role of combining structured education, professional communities, and self-directed learning trajectories as key drivers of long-term professional growth.

Негизги сөздөр: педагогдордун кесиптик өнүгүүсү; формалдуу окутуу; формалдуу эмес окутуу; информалдык окутуу; билим берүү формаларын интеграциялоо; педагогикалык компетенциялар; билим берүү практикалары; эл аралык тажрыйба.

Ключевые слова: профессиональное развитие педагогов; формальное обучение; неформальное обучение; информальное обучение; интеграция форм обучения; педагогические компетенции; образовательные практики; международный опыт.

Keywords: teacher professional development; formal learning; non-formal learning; informal learning; integration of learning forms; professional competencies; educational practices; international experience

Literature review. Definition and distinction of formal, non-formal, and informal learning. Modern educational systems aimed at training and professional development of teachers cannot function effectively in the context of global transformations if they rely solely on one form of learning. To ensure sustainable and long-term professional growth of teachers, it is necessary to integrate various forms of learning, each of which has its own value and makes a unique contribution to the formation of professional competencies. Formal, non-formal, and informal learning are complementary elements that together create a holistic system of professional development capable of meeting the challenges of the time.

Formal learning: a systemic foundation for professional development.

Formal learning serves as the systemic basis for teachers' professional development, encompassing academic programs, certification courses, and professional development programs. This type of learning provides structure, standards, and consistency in teacher training, ensuring high quality in the educational process. According to research, such programs are aimed at developing both practical and theoretical knowledge in teachers, which are essential for effective work in the context of modern educational requirements.

At the same time, formal learning sometimes faces certain limitations. Its fixed structure and standardization may lag behind the rapid changes in education, such as the introduction of digital technologies and new pedagogical approaches. To adapt effectively to these changes, formal programs need to be complemented by flexible learning formats and the integration of professional communities, enabling teachers to maintain up-to-date knowledge and skills.

The significance of formal education is substantiated by studies conducted by the Learning Policy Institute, which highlight that effective professional development programs must rely on a well-defined structure, active learning, and collegial support within professional communities. These elements equip educators with essential competencies and foster their sustainable growth, particularly within the rapidly evolving educational landscape [1].

Materials and Methods. Informal learning plays a crucial role in ensuring flexibility and adaptability in the professional development of educators. Unlike formal learning, it does not have strict frameworks or mandatory certification but offers significant opportunities for the rapid acquisition of new knowledge and the implementation of innovative pedagogical practices. In higher education, informal learning serves as a flexible

and dynamic tool for educators' professional growth, enabling them to update their knowledge and skills promptly in response to changes within the educational environment. According to Owusu-Agyemen (2024), informal educational activities such as seminars, workshops, and professional communities allow educators to share experiences, discuss emerging educational approaches, and incorporate them into their practice. The findings emphasize that educational leaders play a key role in creating the conditions for the successful integration of such forms of learning and in supporting novice educators through mentoring and coaching [2].

One of the significant advantages of informal learning lies in its capacity to create a "situational learning environment," where experienced educators and experts actively support the professional growth of their colleagues. Unlike formal professional development courses, such initiatives offer greater flexibility and personalization, enabling educators to select learning modules according to their individual needs and professional interests

An important aspect of this approach is the creation of opportunities for continuous self-development and experience-sharing within professional communities. As noted by Morrison and Hughes (2024), the use of online learning formats fosters the development of learning networks, enhances resource accessibility, and allows educators to collaborate regardless of their geographical location [3].

The role of flexibility in informal learning also lies in creating conditions for collaborative learning, which strengthens teachers' professional identity while fostering critical thinking and efficiency. These formats encompass both synchronous and asynchronous elements, enabling educators to determine their own pace and timing for acquiring new knowledge and methodologies. For instance, the use of online platforms and digital tools facilitates knowledge exchange and the implementation of innovative practices, even in remote or rural areas where access to traditional educational activities is limited.

Thus, the integration of informal learning into teachers' professional development creates flexible educational trajectories and enhances their capacity to adapt to contemporary challenges. It is important to emphasize that successful professional development requires the synergy of formal and informal learning, which enables educators to adopt new pedagogical approaches in a timely manner and remain relevant amid the rapid changes within the educational environment.

Informal Learning – Self-Education as a Tool for Continuous Professional Growth.

Informal learning represents the most flexible and autonomous form of learning, which is not regulated by educational institutions and does not require certification. It relies on educators' initiative in independently seeking knowledge and developing competencies, making it a key component of the system of continuous professional development (CPD). Informal learning is carried out through reading professional literature, participating in online communities, using educational resources on the Internet, watching lectures and seminars, as well as through self-directed learning based on everyday practice [4].

The main components of informal learning include peer interaction, self-education, the use of online resources such as educational platforms (e.g., Coursera or EdX), as well as participation in professional communities and networks. Research confirms that such forms of learning contribute to the development of pedagogical competencies, adaptive learning, and an innovative approach to teaching [4; 5].

These approaches enable educators to exchange knowledge and experience, receive feedback, and develop new teaching methods. Moreover, engagement in such forms of learning strengthens professional connections and enhances job satisfaction, which, in turn, positively impacts the effectiveness of the educational process.

As research demonstrates, professional networks and platforms significantly expand opportunities for educators. For instance, collaboration with colleagues helps them implement innovative methods, while reflection on their own practices contributes to the continuous improvement of teaching quality. This type of learning also enables educators to respond more rapidly to new challenges and to integrate modern approaches into instruction, which is particularly relevant in the context of the rapid digitalization of education.

Thus, informal learning plays a key role in teachers' development by providing opportunities for the continuous renewal of knowledge and the improvement of skills. This format of learning serves as an important

complement to formal programs and supports continuous professional development in line with the requirements of the modern educational environment.

Integration of Learning Forms – A Key to Building a Flexible System of Professional Development. The integration of formal, non-formal, and informal learning represents a strategy aimed at creating a sustainable and flexible system of professional development for educators, capable of adapting to changes in the educational environment. Each of these forms fulfills its own unique function. Formal learning provides foundational knowledge and ensures compliance with professional standards. Non-formal learning enables the timely acquisition of new practices and skills, while informal learning supports continuous self-development and adaptation to emerging challenges.

An example of the successful integration of all three forms of learning is the Finnish educational system, which demonstrates high indicators of teacher professional training. Finland has embedded a comprehensive system of continuous learning that combines formal education in universities and colleges with opportunities for non-formal learning through online platforms such as OpenPageFactory. Communities of practice and mentoring play a crucial role in fostering informal learning, promoting the exchange of knowledge and experience among professionals. This model has enabled Finland to achieve a high level of teacher professional preparation and to ensure the ability of educators to adapt to the changing demands of the digital labor market [6].

An important example of the integration of professional development can be seen in Ireland. Research by Flood and Logan demonstrates how collaborative in-school professional development contributes to strengthening inclusive practices among teachers. Within this program, teachers work together to design strategies and share experiences, helping them adapt educational processes to the participation of students with diverse needs. The study showed that such an approach enhances teachers' confidence in applying inclusive practices and fosters the creation of a more accessible and effective learning environment. This example highlights the importance of continuous learning, supported by collegial interaction, for achieving sustainable outcomes in inclusive education practice [7].

Another successful example of integrating learning forms is the education system in New Zealand. In this country, a model has been implemented that is based on continuous feedback between teachers and educational institutions, allowing formal courses to be adapted to the current needs and expectations of teachers. Considerable attention is also paid to non-formal learning, including teachers' participation in communities of practice, where they can share experiences and teaching methods. This creates a supportive environment for knowledge exchange and the implementation of new ideas. For example, research by Reinsfield and Fox-Turnbull describes teachers' professional development through the creation of networks of expertise, where teachers collaborate with specialists to gain deeper knowledge in technological disciplines. This program, supported by Technology Education New Zealand, helps teachers stay up to date with changes in educational standards and strengthen their professional identity [8].

In Canada, the integration of various forms of learning is also actively supported. Canadian provinces are developing professional learning networks, where educators can share practical experience and gain access to the latest educational resources. These networks contribute to the development of teachers' qualifications and the improvement of teaching quality. Research shows that such models of professional development foster inclusive practices and build stronger teacher communities. The international examples presented demonstrate that it is the comprehensive combination of different forms of learning that enhances the quality of education and the effectiveness of teaching activities, creating a foundation for sustainable development in the context of rapid changes in the educational environment [8].

Results and discussion. In the context of a rapidly changing educational landscape, the integration of formal and non-formal learning is becoming a strategic direction that promotes more effective and flexible professional development for educators. The importance of this integration lies in its ability to combine structured educational programs with adaptive approaches.

Three Key Models of Integration: Blended Learning, Self-Education through Digital Resources, and Participation in Professional Communities.

Blended Learning – The Synergy of Traditional and Digital Approaches.

Blended learning is one of the most effective models, combining traditional teaching methods based on direct interaction between teachers and students with online components. This model creates synergy between formal and non-formal learning, allowing educators to utilize a wide range of resources and technologies to enhance the interactivity of the educational process and to meet the individual learning needs of each student.

Research shows that blended learning increases student engagement, which in turn improves the quality of education. For instance, a study conducted by Graham and Ettol found that the use of blended teaching methods not only encourages students' active participation in the learning process but also fosters the development of independent learning skills and critical thinking.

Educators employing blended approaches can adapt learning materials and methods according to the individual needs and abilities of students. This creates a more personalized learning trajectory, enabling teachers to respond more effectively to changes occurring within the educational environment. Moreover, blended learning makes the educational process more flexible and accessible by allowing educators to combine traditional forms of teaching with distance learning methods. This is particularly important in the context of the growing demand for flexibility caused by changes in work schedules and the professional requirements of educators.

As practice demonstrates, blended learning ensures more effective assimilation of learning materials, enhances academic performance, and creates the conditions for the development of innovative pedagogical approaches.

Self-Education through Digital Resources – Access and Autonomy. The digitalization of the educational process has opened new horizons for teachers' self-education, creating more flexible conditions for their professional growth. The use of online platforms and digital resources such as Coursera, EdX, Udemy, and others enables educators to independently choose courses that correspond to their professional interests and objectives. These resources provide broad opportunities for self-directed learning, allowing teachers to acquire new competencies at any convenient time and place.

Self-education through digital resources is becoming particularly important in the context of the constant renewal of knowledge and the evolving requirements of the teaching profession. As technologies advance at a rapid pace, educators face the necessity of regularly updating their skills and mastering new approaches. The use of digital resources allows teachers to learn at their own pace, which facilitates deeper adaptation of new knowledge and methods into their everyday practice.

Research confirms the effectiveness of self-education through digital resources. For example, according to the findings of An et al., the use of online platforms for professional development enhances teachers' satisfaction with the learning process and provides them with opportunities to develop essential competencies, regardless of financial, temporal, or institutional constraints. This is especially significant in contexts where teachers must balance learning with other responsibilities and require flexible, accessible formats of professional development.

Participation in Professional Communities – Interaction and Knowledge Exchange.

Participation in professional communities represents another vital aspect of integrating formal and non-formal learning. Professional communities, such as teachers' associations, online forums, workshops, and seminars, provide platforms for knowledge exchange, discussion of current issues, and the implementation of innovative practices. Within such communities, educators gain access to advanced knowledge, share successful examples of their work, and discuss methods that can help improve collaborative educational activities.

Active engagement in professional communities fosters social support, which is a key factor in teachers' professional growth. A study conducted by Darling-Hammond et al. highlights that educators' participation in professional communities enhances their involvement in the process of professional development and creates a cultural context that promotes mutual support and collaboration. This, in turn, contributes to the formation of more sustainable educational ecosystems, where teachers can learn from one another and adapt best practices within their institutions.

Moreover, participation in such communities allows teachers not only to enrich their own experience but also to access a wide range of educational resources that can significantly improve their teaching practice. Importantly, these communities stimulate non-formal learning, which - unlike formal learning - is oriented toward the exchange of practical knowledge and skills in real time. This encourages deeper collaboration among educators and supports the development of new approaches to addressing educational challenges.

Advantages and Barriers to the Integration of Formal and Non-Formal Learning. The integration of formal and non-formal learning is a complex yet significant process that contributes to the development of teachers' professional competencies in the context of a dynamically changing educational environment. The synergy of these learning formats optimizes the educational process, expanding teachers' opportunities to adapt to modern requirements. Such an integrated approach not only supports continuous competence development but also stimulates innovation, increasing the flexibility and accessibility of education.

One of the main advantages of integrating formal and non-formal learning is the flexibility of the educational process. Hybrid formats that combine traditional methods with online resources enable teachers to individually adjust their approaches, which fosters deeper engagement and increases their satisfaction with the learning process.

Accessibility of educational resources is another important advantage. Modern technologies, including open educational resources and digital platforms, provide teachers with the opportunity to access learning materials anytime and anywhere. This is particularly relevant for professionals working in remote or under-resourced areas, where access to traditional educational programs may be limited.

Personalized learning also stands out as a significant benefit of integration. The possibility of developing individual learning pathways tailored to teachers' specific professional interests is one of the key factors in their professional growth.

Conclusions. Despite its obvious advantages, the integration of formal and non-formal learning faces a number of obstacles. One of the main barriers is the absence of a unified system of standards for non-formal learning. Formal educational programs follow established standards and accreditation, ensuring a certain level of quality, whereas non-formal learning often remains unstandardized. This may lead to inconsistencies in the quality of knowledge and skills acquired by teachers. Consequently, it can result in a lack of trust in non-formal educational practices from both educators and educational institutions.

Cultural attitudes and organizational structures within educational institutions can also hinder the integration of formal and non-formal learning. Research indicates that in traditionally oriented organizations, new approaches are often met with resistance, as formal educational models are perceived as more reliable and predictable. In such institutions, cultural barriers manifest through entrenched teaching methods and insufficient support for innovation, which reduces trust in non-formal learning methods and complicates their implementation.

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21-КЫЛЫМДЫН 4 КӨНДҮМҮНҮН ЖАПОН ТИЛИН ОКУТУУДА КОЛДОНУЛУШУ
ПРИМЕНЕНИЕ 4 НАВЫКОВ 21 ВЕКА В ПРЕПОДАВАНИИ ЯПОНСКОГО ЯЗЫКА
APPLYING 4 21ST CENTURY SKILLS TO TEACHING JAPANESE

Кыскача мүнөздөмө: Макалада XXI кылымдын «4К» көндүмдөрү - сынчыл ой жүгүртүү, коммуникация, команда менен иштөө жана креативдүүлүк - жапон тилин окутуу процессинде колдонулушу каралат. Өзгөчө көңүл кыргыз студенттери үчүн татаал болгон жапон иероглифтерин өздөштүрүү маселесине бурулган, анткени кыргыз жазмасында иероглифтик система колдонулбайт. Изилдөөдө «теңтуш менен окуу» ыкмасы жана командалык иш-аракеттер колдонулган сабактардын тажрыйбасы баяндалат. Студенттер арасында жүргүзүлгөн сурамжылоонун негизинде бул ыкманын иероглифтердин маанисин, окулушун жана жазылышын түшүнүүгө, ошондой эле окууга болгон кызыгуусун арттырууга тийгизген таасири талданган. Изилдөөнүн жыйынтыгында «4К» көндүмдөрүн жана «теңтуш менен окуу» ыкмасын колдонуу иероглифтерди аң-сезимдүү өздөштүрүүгө, жапон жазуусуна болгон кызыгууну өнүктүрүүгө жана студенттердин коммуникативдик, аналитикалык жана чыгармачылык жөндөмдөрүн калыптандырууга көмөктөшөрү аныкталды.

Аннотация: В статье рассматривается применение навыков XXI века, известных как модель «4К» - критическое мышление, коммуникация, командная работа и креативность - в процессе обучения японскому языку. Особое внимание уделяется освоению иероглифов, которое представляет трудность для кыргызских студентов, поскольку в кыргызской письменности иероглифическая система не используется. В исследовании описан опыт проведения занятий по обучению иероглифам с применением метода «равного обучения» и элементов командной работы. На основе анкетирования студентов проанализировано влияние данного подхода на понимание значения, чтения и написания иероглифов, а также на мотивацию обучающихся. Сделан вывод о том, что использование навыков 4К и метода «равного обучения» способствует более осознанному усвоению иероглифов, развитию интереса к японской письменности и формированию у студентов коммуникативных, аналитических и творческих навыков.

Abstract: The article examines the application of the 21st century "4C" skills - critical thinking, communication, collaboration, and creativity - in teaching the Japanese language. Particular attention is paid