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Section 1. Age-related psychology

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DIDACTIC POSSIBILITIES OF FORMATION OF FAMILIAR COMPETENCE IN ADOLESCENT BOYS

Abstract. This article considers that in adolescence, family competence, universal values, household management skills, a reasonable daily routine, economic education, and the desire for novelty are important for boys.

Keywords: recessions, crises, family values, competence, care, ethical standards.

Introduction

It is important to remember that this condition is a transitional period from childhood to adulthood. At this stage, the mental and physical development of children is significantly accelerated. Adolescence includes 11–12 years, 14–15 years, in some children, the transition to this period may begin, mainly from the 5th grade. Adolescence is distinguished by its imitativeness, informality of an important point of view, courage, masculinity, restraint, emotionality. A teenager begins to be interested in different things in life. The desire for novelty increases. The inner world is enriched, character is formed, contradictions arise.

That's why he looks at some restrictions differently. This period of child maturation is often called a "difficult", "important", "difficult" period. Parents, as well as young teachers who do not yet have sufficient experience in the field of educational work, as well as the necessary knowledge about the age and individual characteristics of adolescent children, usually believe that the upbringing of adolescents is too difficult. But at present, science knows specific patterns, features, opportunities for the upbringing of adolescents, complex mechanisms of expression and the emergence of motives of behavior. This is typical for teenagers. For this reason, adolescent boys and girls need to be given close attention, and during this period, changes occur in children.

These are physiological, biological, as well as psychological. In order to form familiar competence in adolescent boys, it is necessary to first form this competence in teachers, because boys in adolescence spend most of the day with teachers in secondary schools.

Materials and methods

Family competence in the professional activities of teachers involved in the formation of the attitude of schoolchildren to family values is an important aspect of professional and pedagogical competence in the professional development of a teacher. The formation of family competence among teachers includes:

– Understanding the multifunctional and universality of family life;

– The teacher's awareness of the universal value and personal significance of family, family life;

– Acquisition of ethical norms (respect for parental feelings for etiquette, etc.) and professional

competencies for the education of younger school-children in connection with family values.

– Possess the personal qualities necessary to build their own family life and organize constructive cooperation with the families of pupils on the basis of technologies for working with different types of families;

– Family relations acquisition of household skills, culture, communication skills with relatives and close people;

– A system of knowledge about the activities of the family, its creation, ways of implementing family education of children, constructive interaction with the pupil's family in the process of its development;

– For the formation of familiar competence in adolescent boys, teachers are required to:

– Subjective and personal experience in the development and implementation of models for the effective solution of problems of family life, preparation of schoolchildren for family life and psychological and pedagogical education of parents;

– Readiness for constant self-development of family qualities, self-improvement of family relations, self-education in the field of social partnership with the parents of pupils in order to create a personality-oriented educational environment.

The process of education and upbringing of boys in adolescence is carried out in the immediate environment of the child, that is, in the family, parents, older relatives, children, their friends create an information space in which the teenager grows up. Through this, he enters society. The principle of skillful use of exactingness with a respectful and humane attitude towards children. The main thing is to establish a rational order of life and behavior of children in the family, rational forms of their relationships with other family members.

The learning process – the formation of habits, skills, character traits – goes through the transfer of knowledge. To teach children to the daily routine, including work, study in combination with rest, how to keep their belongings and workplace in order, to form appropriate habits of positive behavior. The

next important criterion for the formation of tolerant relationships in the family is the creation of a working environment and the development of children's work skills. In the family, work should be organized according to the type of collective in which teenage boys contribute to the creation of material well-being and can measure their needs with material prosperity. The best means of motivating children to work in the family was considered the ability of parents to set work tasks, give work assignments, as well as jointly perform the planned work. At the same time, parents should not forget that people have always tried to please, so as not to force children to work.

Result and discussion

The inability of some parents to expand the scope of children's forces in practical matters leads to the fact that they do not learn to appreciate work, and also form dependent moods in themselves. Teaching children to work from an early age forms their diligence, which is one of the most important qualities of a good head of the family.

A. S. Makarenko listed more than 20 types of child labor in the family. They consist of:

Children can make beds, keep tables and workplaces in order, clean shoes and clothes, take care of flowers, place magazines and newspapers in a certain place, look after sisters and siblings, help parents clean the apartment, cook, and hakojo.

According to the classification of competencies adopted by most theorists, they are divided into general and professional. Instrumental competencies are formed in adolescence. The main ones are informative. Thinking as the ability to understand the use of ideas and knowledge. Language skills are formed faster in the process of communication, especially in children. The first skills of preschoolers are communicative. Not only teachers, but also parents take care that children's questions are not left unanswered. Practical qualities such as attentiveness and thrift are brought up in the family. The means of economic education are stories, games, reading literature, interpreting pictures, watching cartoons,

proverbs. There are also non-traditional methods of economic education in the family. For example, a seven-year-old boy "Found a job."

He was paid to make buttons. The teenage boy realized that the work was not easy, the money was expensive. Decades have passed, but the perseverance, hard work, and patience that began then accompanied him all his life. The most important thing in the economic education of children is a respectful attitude.

Conclusion

The main criterion in the economics of raising a teenage child is the personal example of family members. Important conversations, organization of the child's personal space – his desk, room, play corner,

choice of attitude to the child's mistakes and reactions to them. You can even organize a child's competition with himself. Fathers play an important role in the formation of familiar competence in older children. The reason is that the bird does what it sees in its nest. For a boy, the father in the family is a role model. That's why parents should pay attention to their behavior around children in the family. Adolescence is a period rich in contradictions. Some scientists also call this a period of "recessions" and "crises". The reason lies in the fact that such crisis situations arise in the psyche of a teenager that, on the one hand, he himself wants to resolve this crisis, and on the other hand, he lacks the capabilities, strength and intelligence to resolve it.

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Section 2. Higher professional education. Pedagogy of higher professional school

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INCREASING THE EFFICIENCY OF THE EDUCATIONAL PROCESS UNDER THE CONDITIONS OF BLENDED LEARNING OF THE HIGHER EDUCATIONAL

Abstract. In this article, the choice of the most effective innovative methods and technologies in the modern system of higher education, the importance of e-learning in the system of higher education, the concept of blended education and its models, definitions, opinions of a number blended learning models and the benefits of using these models in the educational process. A methodology has also been developed to improve the efficiency of the educational process in a mixed educational environment of the higher education system.

Methodology and research methods. The study is used to observe and analyze the process of teaching science, mastering theoretical and practical knowledge, tests and tasks through an online platform, interviews, statistical processing of test experiment data, graphical presentation of results, and other methods.

Results. A project (www.blededlearning.uz) was created and implemented, included in the state register of the information exchange mechanism for the teaching staff of the university, proposals and recommendations were developed.

Scientific novelty.

– Analysis and analysis of theoretical and scientific and methodological literature

– sovershenstvovanie etapov vnedreniya smeshannyx obrazovatelnyx technological and organizational and lectsionnyx zanyatiy and vuzakh;

– Developed methodology for increasing the effectiveness of the lecture and mixed educational environment of the university.

Keywords: blended learning model, face-to-face training, independent learning, online learning, flipped classroom model.

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ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ОБРАЗОВАТЕЛЬНОГО ПРОЦЕССА В УСЛОВИЯХ СМЕШАННОГО ОБУЧЕНИЯ ВУЗА

Аннотация. В данной статье выбор наиболее эффективных инновационных методов и технологий в современной системе высшего образования, значение электронного обучения в системе высшего образования, концепция смешанного образования и его модели, определения, мнения ряда представлены приведенные в литературе отечественными и зарубежными учеными взгляды и подходы, классификация наиболее используемых моделей смешанного обучения и преимущества применения этих моделей в образовательном процессе. Также разработана методика повышения эффективности образовательного процесса в смешанной образовательной среде системы высшего образования.

Методология, методы и методики. Исследование используется для наблюдения и анализа процесса преподавания науки, освоения теоретических и практических знаний, тестов и заданий через онлайн-платформу, интервью, статистической обработки данных тест-эксперимента, графического представления результатов, и другие методы.

Результаты. Создан и реализован проект (www.blededlearning.uz) внесенный в государственный реестр механизма обмена информацией для профессорско-преподавательского состава вуза, разработаны предложения и рекомендации.

Научная новизна.

– Анализ и анализ теоретической и научно-методической литературы

– совершенствование этапов внедрения смешанных образовательных технологий в организацию лекционных занятий в вузах;

– Разработаны методики повышения эффективности лекций в смешанной образовательной среде вузов.

Ключевые слова: модель смешанного обучения, очное обучение, самостоятельное обучение, онлайн-обучение, модель перевернутого класса.

Введение. Значительные изменения происходят в системе образования нашей страны. Сегодня развитие идет очень быстро и меняется очень быстро. Открытие широкого пути к современным знаниям, эффективное использование новых информационных технологий в совершенствовании преподавания стало требованием сегодняшнего дня.

Значительные изменения происходят в системе образования нашей страны. Сегодня развитие идет очень быстро и меняется очень быстро. Открытие широкого пути к современным знаниям, эффектив-
ное использование новых информационных технологий в совершенствовании преподавания стало требованием сегодняшнего дня. Проблема выбора наиболее эффективных инновационных методов и технологий в современной системе высшего образования остается актуальной. Инновационные методы – это методы, основанные на использовании современных достижений науки и информационных технологий.В зависимости от уровня использования электронного образования в образовательном процессе различают онлайн-обуче-

ние и смешанное обучение. Онлайн-образование (онлайн-образование) – это метод организации процесса самостоятельного изучения учебных материалов с использованием образовательной среды на основе интернет-технологий. Смешанное обучение – это сочетание онлайн-обучения с очным обучением, интеграция традиционных форм с электронными технологиями.

Обзор литературы

Т. В. Долгова рассматривает технологию смешанного обучения как синергетическую технологию, позволяющую более эффективно использовать преимущества дневного и электронного обучения и уравнять или компенсировать недостатки каждого из них[1].

Е. В. Костина выделяет три основных компонента модели смешанного обучения, используемой в «современной образовательной среде»:

– очное обучение (face-to-face) – традиционный формат преподаватель-ученик в аудитории;

– самостоятельное обучение – включает в себя самостоятельную работу учащихся: поиск материалов с использованием карты ресурсов, поиск в сети и т.д.;

– онлайн обучение – онлайн-работа студентов и преподавателей, например, с использованием интернет-конференций, скайпа или вики и т.д. [2].

С. Д. Калинина предлагает рассматривать вебинары как часть смешанного обучения [3].

Один из отечественных исследователей Бабаходжаева Л. Г. определяет смешанное образование следующим образом. Смешанное обучение – это система обучения, сочетающая в себе традиционное очное, дистанционное и самостоятельное обучение, которое предполагает взаимодействие преподавателей, обучающихся и интерактивных источников информации, всегда взаимодействующих друг с другом, отражает все компоненты образовательного процесса (цель, содержание, методы, организационные формы, средства), ко-

торые связаны между собой и образуют единое целое [4].

В литературе предложен ряд определений смешанного обучения. Konsortium Sloan определяет смешанное обучение как курс, сочетающий очное и онлайн-предоставление, при котором 30–79% контента предоставляется онлайн. Смешанное обучение определяется как «комбинация инструментов и устройств, используемых в среде электронного обучения» или «смесь различных дидактических приемов».

Как отмечает K. Kun, рассматриваемый формат профессионального обучения призван минимизировать недостатки очной и электронной форм обучения [5].

Методология, материалы и методы исследования

Организация смешанного образовательного процесса включает следующие этапы:

Этап 1. Планирование образовательной деятельности

Этап 2. Непосредственное осуществление образовательной деятельности

Этап 3. Оценка успеваемости учащихся

Этап 4. Дальнейшее планирование включает анализ учебной деятельности с целью ее корректировки.

Организация образовательного процесса представляет собой технологический цикл, включающий планирование образовательной деятельности, непосредственную реализацию образовательной деятельности, оценивание достижений учащихся, анализ и оценку образовательной деятельности с целью коррекции в по-следующем планировании. В целом деятельность учителя может быть представлена в виде циклограммы (Фигура 1) [6].

Лекции проводятся по модели перевернутого класса. Учебный процесс «Перевернутый класс» начинается с самостоятельной работы в электронной среде (электронный курс). Как правило, это сложное задание, для которого студент должен выполнить 1–2 задания на ознакомление с новым учебным материалом и контроль его понима-

ния. Самостоятельная работа студентов, начатая в электронной среде, продолжается практической работой и обсуждением в классе. Переход в электронную среду происходит вновь на завершающем этапе при разработке и закреплении материала. Таким образом, смешанная модель может быть выражена как цикл «доучебная работа – аудиторная работа – послеучебная работа», выполняемая во взаимосвязанных электронных и аудиторных компонентах [7] (Рисинук 2).
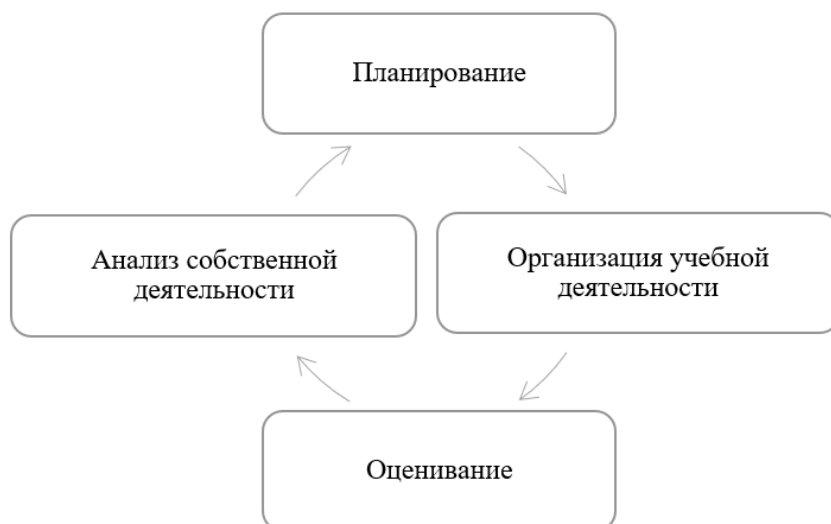
Рисунок 1. Планирование учебной деятельности при смешанном обучении

Рисунок 2. Организация учебного процесса в смешанном обучении

По ней учащиеся заранее изучают представленный преподавателем теоретический материал и приходят на занятие уже знакомыми с предметом; классное время посвящается разбору всех возникших вопросов у преподавателя и решению практических задач и проверке себя при выполнении контрольных заданий. Как правило, теоретический материал преподносится студентам в виде различных видеороликов и презентаций, которые составляются самим преподавателем и размещаются на blendedlearning.uz, а студенты имеют доступ к ресурсу.

Сайт blendedlearning.uz был разработан для применения вариативной модели к процессу обучения. Страница «Теоретические основы информатики» состоит из медиаресурсов, предназначенных для реализации логической последовательности учебного материала. Медиаресурсы (мультимедийные материалы) – текстовые, изображения, звуковые файлы, видеоролики, презентации, контрольные, тестовые и дидактические ресурсы, размещенные в системе для визуального представления текстов и обеспечения полноты обучения. Ниже мы проектируем технологическую карту, подготовленную по теме «Лекция 3: Техническое обслуживание ЭВМ» из темы «Теоретические основы информатики» и методику использования технологической среды обучения «перевернутый класс». Создадим технологическую карту преподавания темы лекции по модели «Перевернутый класс» (Таблица 1).

Таблица 1. – Технологическая карта лекции

Рабочие шаги	Среда деятельности	Содержание активности	
		Учитель	Студент
1	2	3	4
ЭТАП 1. ПРЕДУРОЧНАЯ РАБОТА	Вне аудитории	1.1. Будет сформирована общая база данных студентов академических групп, в которых преподается предмет. В социальной сети «ВКонтакте» студенты будут подписаны на специальный канал «Информатика», систему Hemis и сайт смешанного обучения.. 1.2. Готовит видеоуроки, слайды презентаций, задания, тесты в рамках темы. 1.3. В качестве домашнего задания учащимся дается ознакомление с новой темой «Тема 3: Обслуживание ЭВМ». Предлагается к использованию учебная литература, электронное пособие, тематический сайт «blededlearning.uz». 1.4. Готовится к прохождению темы и выбирает интерактивные методы, используемые в рамках темы. 1.5. Учащиеся готовят индивидуальные тестовые вопросы для определения уровня усвоения новой темы 1.6. Работает над собой, готовит творческие материалы, чтобы повысить эффективность обучения и сделать обучение более содержательным и интересным.	1.1 Вконтакте является участником специального канала «Информатика» и системы Hemis.. 1.2 Для подготовки к новой теме перейдите на blendedlearning.uz. 1.3 Действия выполняются в последовательности указанной на сайте. 1.3.1 Видеоурок будет пересмотрен (2 раза). 1.3.2 Слайд презентации будет прочитан 1.3.3 Задания и тесты решаются для того, чтобы определить, в какой степени усвоена тема. 1.3.4 Рекомендуется прочитать дополнительную литературу в рамках темы 1.3.5 Вопросы, возникающие в рамках темы, записываются в тетрадь.
ЭТАП 2. УРОК РАБОТЫ	В аудитории	2.1.Организационная часть: Приветствие, отправка студентов по системе hemis (5 минут) 2.2 Проверка домашнего задания. Отвечает на вопросы учащихся по новой теме (15 м.т.). 2.3.Информационный этап: Будет проведена мини-лекция (10 м.т.) (мини-лекция будет проводиться в форме вопросов и ответов) 2.4. Укрепление. Воспитатель раздает раздаточные материалы по методу рыбьего скелета.	2.1. Здоровается с учителем. 2.2. Будут заданы вопросы, возникающие в результате изучения новой темы. 2.3. Учащиеся развивают навыки по предмету 2.4. Рекомендуется, чтобы учащиеся записали ответы к задачам, данным на ребрах скелета рыбы, чтобы подвести итог по теме.

1	2	3	4
ЭТАП 3. ПРЕДУРОЧНАЯ РАБОТА	Вне аудитории	3.1. Дает самостоятельное задание по теме. 3.2. Следующая новая тема дается в качестве домашнего задания.	3.1.В рамках темы они получат задание, данное на сайте blendedlearning.uz 3.2. Они готовятся к новой теме

Результаты исследования и их обсуждение. Использование таких технологий в организации занятий позволяет учащимся самостоятельно искать, раскрывать свою творческую сторону, работать над собой. С целью определения эффективности электронного обучения, а также эффективности перевернутой модели обучения смешанного обучения в образовательном процессе было проведено пилотное тестирование на уроках науки «теоретические основы информатики».

В экспериментальных группах обучение проводилось по модели смешанного обучения «Перевернутое» с помощью веб-системы, адаптирующейся к образовательному процессу, а в контрольных группах – традиционными методами.

Таблица 2. – Обучение студентов в постэкспериментальный период

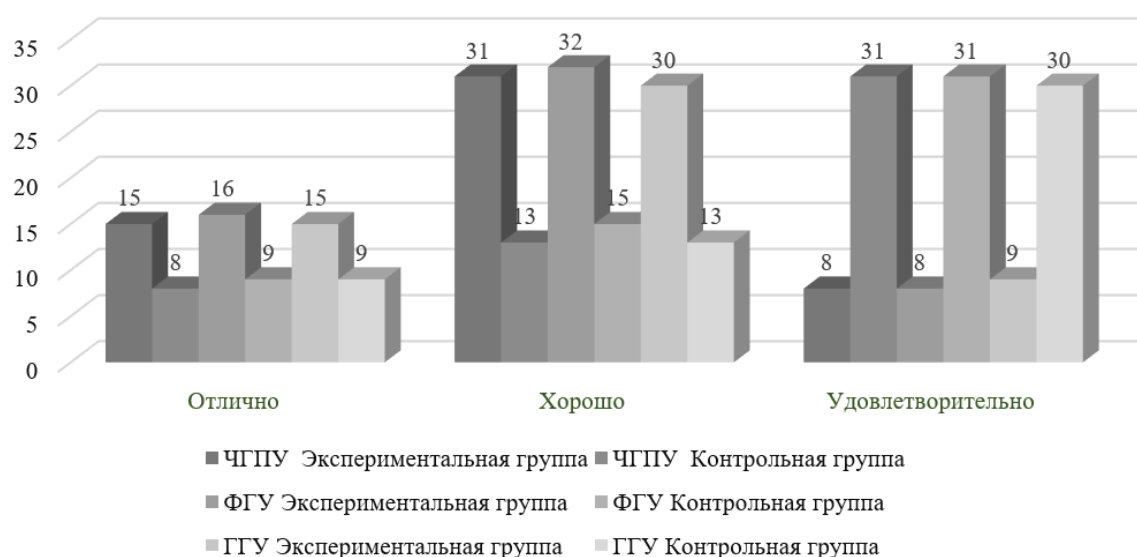|	Чирчикский государственный педагогический университет		Ферганский государственный университет		Гулистанский государственный университет	
	Экспериментальная группа	Контрольная группа	Экспериментальная группа	Контрольная группа	Экспериментальная группа	Контрольная группа
Отлично	15	8	16	9	15	9
Хорошо	31	13	32	15	30	13
Удовлетворительно	8	31	8	31	9	30
Общий:	54	52	56	55	54	52

Рисунок 3.

Проведенные экспериментальные наблюдения показывают, что эффективность обучения на основе веб-системы, адаптирующейся к образовательному процессу, значительно повышается по сравнению с освоением, когда оно организовано на основе традиционных методов обучения.

Результаты проведенной экспериментальной работы представлены в таблице (таблица 2).

Построим диаграмму, соответствующую этим выборам (диаграмма 1):

Эксперименты показали, что занятия, организованные на основе модели образовательного процесса «Перевернутое обучение», повышали творческие способности и творческое мышление учащихся, укрепляли их знания, умения и навыки, повышали интерес учащихся к науке.

Заключение. Таким образом, использование данных образовательных технологий в образовательном процессе на современном этапе модернизации системы высшего образования представляет собой принципиальное изменение функций существующей педагогической системы, в том числе перевод роли преподавателя из одной формы в другую, инновационную и Внедрение средств коммуникативных технологий, широкое распространение смешанной и дистанционной форм обучения, повышение самостоятельной учебной активности студентов и ориентация на непрерывное образование позволяют находить пути обучения с учетом индивидуальных психофизиологических особенностей студента.

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Section 3. General pedagogy

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THE DEVELOPMENT OF PSYCHOLOGICAL KNOWLEDGE IN TEACHERS AS A NECESSITY

Abstracts. This article explores the need for the development of psychological knowledge in teachers who are working in schools in Uzbekistan. As such, the need for this issue has been revealed.

Keywords: teacher, efficiency, psychological knowledge, quality of education, stress.

Introduction

In recent times, calls for the preservation of the psychological health of mankind, specific recommendations are being put forward. For example, according to the APA (2013), only 37 percent of Americans can control their stress constuctive [1]. This testifies to the possibility of dressing problems in psychological health caused by the lack of resilience, flexibility in relation to stress, the lack of knowledge-skills in managing stress, in the rest of the population. Relatively new research shows that the issue of psychological health has been raised to a national level in the United States. In particular, it is noted that the National psychological health crisis of 2020 occurred [2]. Every third American complains about stress at work, and there is also data on whether production in the US will suffer billions of dollars in losses due to stress at work [3]. Relying on this information, one can come to the idea of how relevant it is to have psychological knowledge and the need to develop them. This necessity must also be counted.

From the above, it can be said that the development of psychological knowledge in humanity has become a goal based on humanistic, universal values. And the main educators of all mankind are teachers. The basis for the formation of psychological health in them, as well as the development of their system of psychological knowledge, the development of psychological knowledge of all mankind, the growing younger generation.

In Russia the results of M. I. Lukyanova's (1999) survey of school teachers showed that only 27.3% of teachers claimed to have sufficient knowledge in psychology and pedagogical psychology, while the remaining 33.8% of teachers reported the need to systematically increase their psychological knowledge, while 39% of teachers mentioned that it is necessary to enrich the educational process with psychological knowledge [4]. This suggests that they have a very high need for psychological knowledge.

Materials and methods

Scientific research has been carried out by Uzbek scientists on the development of psychological knowledge of teachers, and the development of psychological knowledge in educators is considered as a factor in their professional competence (Sh. Abdullayeva, 2019) [5]. As such, the psychological characteristics and specifics of Uzbek teachers have also been studied, and it is noted that the process of its self-actualization is important in improving the ef-

fectiveness of teachers ' activities (R. Gaynutdinov, 1992, I. Mahmudov, 1994) [6; 7].

It is worth stopping separately, psychological characteristics that cause an increase in the effectiveness of teacher activity specific to educators, as well as a reverse regression, were determined by R. Gaynutdinov on the basis of factor analysis. In particular, negative characteristics are distinguished excessive excitability, self-blame, emotional instability, overconfidence, lack of self-confidence, concentration on failure, enviroment, inability to control the group, complete assimilation of educational materials and inability to deliver available knowledge. And the positive features are: attitude to one's personality as a value, sociability, adaptive thinking, self-awareness, strong self-control, systematic fixation, order, independent, courage, aspiration for the result, selfconfidence, striving for leadership, empathy, being able to manage a team, being able to organize group work, being able to fully master and deliver educational materials [8].

Some experts (Kunter, 2013, Rosshain, 1970) attributed an increase in general erudition in educators, an increase in its efficiency and experience. Those who stressed the need for such factors as intelligence, emotional intelligence, to develop in the personality of an educator. At the same time, the interest of the teacher in his profession, science, teaching and the process of intellectual development of the individual is also important. Curiosity in this direction is an important efficiency factor in pedagogical activity [9; 10]. It should be noted that the formation of a teacher's curiosity for the field and science occurs as a socio-psychological, pedagogical problem.

It is important that teachers have the knowledge and skills to manage their own personal and professional stress, and to prevent and eliminate cases of professional fading. A state of emotional fading has been brought to the surface as a result of the educator's inability to control his stresses, to acquire psychological knowledge-skills in this direction (Maslach, Shuveli, Leiter, 2001) [11].

A number of scientists (Bardach, Klassen, Perry, 2022) directly studied the psychological characteristics of Educators, which determine the effectiveness of the activities of their teachers, praise distinguished: the ability to form enthusiasm, the development of interest in work, such as emotional satisfaction with the profession, emotional intelligence, the ability of individuals to enter into an inter productive relationship [12].

The development of psychological knowledge in teachers is an issue that needs to be carried out systematically. The development of psychological knowledge from teachers is considered a factor that ensures their professional pedagogical competence as well as professional development. (Magidson, Roberts, Collado-Rodriguez, 2014) [12].

It can be said, relying on the scientific conclusions obtained based on the research of the above scientists, that first of all, it is advisable to pay great attention to the formation of their psychological, pedagogical-psychological knowledge in the process of training pedagogical personnel. In addition, the development of psychological knowledge of teachers operating in the existing system occurs as a problem of the system of professional development.

From the above, on the basis of the survey method, it was intended to clarify the situation with the psychological knowledge of teachers of schools in Uzbekistan. The survey found that it was necessary to provide representativeness, organize online to maximize coverage.

Results

The object of our main research is pedagogical staff in schools, the main research task is to determine to what extent psychological knowledge is formed in them. A place of emphasis, a subjective assessment of the psychological knowledge of teachers using them themselves was carried out. The study involved 6.386 school teachers. The survey was conducted anonymously and in an online form on a methodical-informative channel intended for teachers on the social network (telegramm).

In a survey aimed at teachers, the question was put in the following form « what do you think, is it enough to conduct effective activities, enter into various relationships, lead a generally acceptable (happy) life, your current psychological and pedagogical-psychological knowledge?". To the question posed, respondents answered in the following varints. Fortunately, about 35% of our respondents (2.245) noted that their psychological knowledge is sufficient, but 49% (3.132) noted that respondents sometimes feel the need to enrich their psychological knowledge, which in turn indicates that almost half of the pedagogical staff are not satisfied with their psychological knowledge, cannot overestimate their knowledge of the field. The remaining 16% of respondents (1.009) recognized that educators did not have adequate psychological knowledge. Research results in this (see the 1st picture below) https://t.me/xalqtaliminfo/3488 the link can also be viewed directly.

The 1ˢᵗ picture

- Enough psychological knowledge
- Psixologik bilimlar yetarli emas
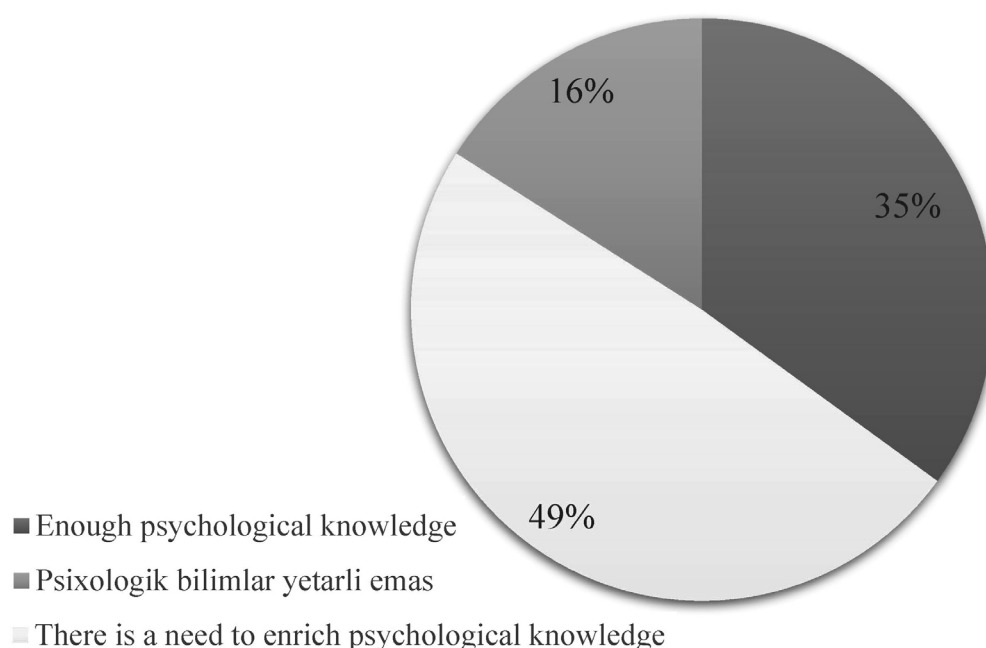- There is a need to enrich psychological knowledge

Figure 1. Formation of psychological knowledge in teachers

Note that about 65 percent of teachers have not been able to assess themselves as competents on the surface of their psychological erudition. This leads to the assumption that psychological problems are the main factor in the educational system. After all, when educators have sufficient access to psychological knowledge, we think that psychological insecurity can be ensured in the educational process, the formation of a favorable socio-psychological environment in the labor community, the process of quality and effective communication between educators and students can occur.

Discussion

Today, modern approaches are widely used in the system of training, retraining and professional development of existing pedagogical personnel in the field of pedagogy. Of course, without denying the effectiveness of these approaches, we would have proposed a kind of "historical psychological" approach. This approach implies the creation of a system of necessary psychological knowledge in them, based on the pedagogical views of Eastern thinkers, the requirements for the personality of an educator.

For example, looking at the work of the great thinker, poet Alisher Navoi, we will face a number of reflections on the personality of a teacher (teacher-educator). According to him, the most important requirement for a teacher is first of all to have in-depth knowledge and be able to assess the level

of knowledge of students. The skill of the teacher is also manifested in this, that is, in the fact that he gives them a suitable education, based on the knowledge of his students. Alisher Navoi recommended that in order to provide a good education, to have good knowledge, to work on himself regularly. He was critical of uneducated, oppressive, uncivilized, unethical teachers [13].

It is also necessary to take into account that in the formation of psychological knowledge in educators, the development of their value system also plays an important role. The historical approach that we offer is consistent with the value system of school teachers operating in Uzbekistan. It is appropriate to say that the formation of knowledge corresponding to the value system in a person is one of the first relatively light mastering, we think that the second side helps to eliminate personal complexes in the implementation of the acquired knowledge into practice. As a result, we can greatly add to the quality of educational training, the elimination of a number of psychological problems in the system.

Acknowledgements

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TECHNOLOGIES FOR DEVELOPING THE QUALITIES IN THE MORAL EDUCATION OF CITIZENS OF THE ANDIRAGOGICAL AGE FORMED IN THE SOCIETY

Abstract. As noted in this article, education not only for young people, but also for adults is important in the development of society and in the education of adults – human dignity, morals, pride, pride, honor, preservation of honor, knowledge is stated to be the main objective in obtaining and this is shown on a modular basis.

Keywords: andragogy, adults, upbringing, education, human dignity, manners, pride, shame, modesty, honor.

Introduction

"Education is for us a matter of life, death, salvation, destruction, happiness, or disaster".

A. Avloni.

Androgogically, who do we call an "adult"? Unfortunately, the period of life activity after the place of education is not classified on a scientific basis. In a person, this period is called according to age (up to 30 years old, from 30 to 45 years old, up to 65 years old, after 75 years old) or traditionally called youth, maturity, old age. In some cases, when determining the age limits, various similes are used, such as "spring of life", "beautiful age", "modern age", "retired age", "retirement age".

The improvement of any society, all countries depends on the essence, pace of development, morals, upbringing, behavior and level of spiritual perfection of the people living in this country. It is known in history that where the spiritual-cultural, manners-moral perfection is high, and educational-educational activities are rationally implemented, there the criteria of social justice of the society are rapidly developed. There are three important foundations of the democratic legal society that we are building in the new independent Uzbekistan. These are: economic, political and spiritual. The stronger and stronger these foundations are, the brighter our future will be, and most importantly, the society will develop faster. Our people are trying to rapidly develop the development of our country. In this period, the processes of education and upbringing of people of androgogical status throughout their lives are the current problems. Following the traditions of wisdom of our ancestors, we are implementing reforms. Political activity is increasing in our society, deep reforms are being implemented in all spheres.

Their goal is to build a democratic state and a fair society, where the implementation of the simple and clear principle of "Human interests are above all else" is of primary importance. It was shown that state bodies should serve our people. It is no longer possible to live in the old way. Virtual and public receptions of the President were established in all regions of our country. Nowadays, more than two million of our citizens solve their urgent problems through these reception centers. In order to avoid such problems, we should consider it our sacred duty to educate not only our children, but also all senior citizens based on national values, customs and beliefs. High decency is not something that was invented yesterday or today. They were formed on the basis of the

thousand-year history of mankind, the experience of several generations of our ancestors.

Materials and methods

It is known that a strong and powerful state is created on the ground of decency and morality. The people of such a powerful state should be able to protect their pride, honor and values. Therefore, in the education of adults, the main goal should be teaching to preserve and protect human dignity, morals, pride, shame, and honor. Then, all our people will work in the society where they live based on the examples of our morals. It should not be forgotten that the prospects of every country, the well-being of its people, peaceful life, and the education of the citizens living in that society depend to a large extent on the education of generations, the level of knowledge and spiritual maturity of our hopeful citizens, because our tomorrow is in their hands.

Therefore, people who consider the process of education as an integral part of social life should pay attention to the unique qualities of education and upbringing of all citizens living in the society and know that they will have their place in the society. Therefore, it can never be left out of love and attention. Because it is difficult to imagine society and its development without carrying out educational work.

Every person living in our country has positive emotions such as humanity, kindness, and tolerance. One of the great values of our people is to show respect to the elderly, to enjoy their valuable advice based on many years of life and work experience, and to carry their prayers. After all, there are wise sayings of our people: "A house with an old man has an angel", "A house with an old man has a fairy", "Old age is decorated with wisdom".

It's not for nothing. It is admirable that this noble value and virtue has found a little expression in the politics of our country today. By the decree of the President of the Republic of Uzbekistan dated April 2, 2019, "On measures to radically improve the position of neighborhood institutions in dealing with population problems" No. PF-5700, "Advisory

groups for the elderly" were established. October 1, announced by the resolution of the UN General Assembly on December 14, 1990, in order to provide social protection for the representatives of the elderly and young generation, to increase attention and care for them, to improve their living conditions, to ensure that they live an active and meaningful life, and to widely use their rich life experience.

In order to widely celebrate the "International Day of the Elderly" in our country every year, the first week of October was designated as "the week of the elderly". The most gratifying thing is that in the draft decision, the issue of creating and improving technologies for improving the quality of moral education of the elderly citizens formed in the society was specifically mentioned, and significant work is being done to ensure the implementation of the decision. It should be noted here that in order to ensure the high efficiency of this decision, meetings with labor veterans are being organized in the labor unions, various sports events are being held among the elderly, in particular, walking marathons.

All this is a clear expression of the high attention paid to (andragogic) elderly citizens. In a word, all the conditions are being created for elderly people to live a decent life in our country, on the basis of the wide-ranging reforms that are being carried out, first of all, the role of elderly people is incomparable in liberating our society, making our lifestyle more prosperous and prosperous, strengthening peace and tranquility, and increasing the economic potential of our country. So, today's veterans, who, like our elders, served for the interests of the country with loyalty and selflessness for many years, tasted the bitter fate of life, raised the younger generation in the spirit of loyalty to the motherland and showed them the right path during their working career. they have a great contribution in our progress towards peaceful and bright days, and seeing their hands open to prayer and the expressions of satisfaction on their faces, one feels once again how little we appreciate them.

Result and discussion

The integration of our country into the world community, the rapid development of science and technology require the experts engaged in scientific and scientific-pedagogical activities to have excellent knowledge of foreign languages. The successful solution of this task makes it necessary to rely on clear methodological bases in the teaching of foreign languages in andragogic education. Because the main goal of andragogical education is to develop not only professional, but also economic, social and personal competence of a person. In this type of education, the pedagogical process is considered to be a process organized based on the interests and needs of subjects, and the primary criterion is to take into account the specific level of educational goals and the practical aspects of knowledge acquisition. There are a number of factors that determine the success of foreign language teaching in andragogic education, and the facilitator should pay special attention to these aspects:

1. Possession of practical life experience. Older learners have a wealth of life experience, and this aspect serves to enrich the entire classroom practice. Practicing teachers say that the presence of older learners in the audience is not without benefits, because they do not hesitate to tell the audience about their rich experiences and freely express their opinions on various topics.

2. High motivation orientation. It should not be forgotten that the interest in learning foreign languages among older learners is usually not directly related to obtaining a certificate or diploma, it arises through their internal initiative. The motivation of older learners to master foreign languages is stronger than that of younger learners. The high level of motivation is reflected in the fact that they do not skip classes, are always active during the lesson, and complete homework assignments.

3. Stability of social intelligence. In the process of teaching an intensive course of a practical foreign language in retraining and advanced training courses, it is possible to be sure that older learners have characteristics with a strong social description. Social intelligence develops depending on personality types with a specific psychological structure, personality traits, and cognitive-emotional and behavioral components. It is the social sociability of older students, their ability to quickly and easily get along with other students, and their ability to organize social events together even before class, which has an effective effect on this process. The results of the research showed that the difficulties faced by older learners in the course of the lesson can be eliminated based on the adaptation of the learning environment, educational materials to the characteristics of the age period, and the development of effective teaching methods. Research scientists C. Keillor and J. Littlefield show that the following criteria should be taken into account in order to prepare adult listeners to learn foreign languages: 1. Creating a calm, peaceful and friendly environment. 2. Establishing a culture of naturalness, tolerance, respect and consensus. 3. Collaborative work on diagnosis of knowledge and skills to be learned. 4. Development of a foreign language learning plan in cooperation.

Conclusion

In conclusion, it can be said that the positive moral qualities of the elderly population are the main factors for forming and enriching the spiritual world of the younger generation, educating them on the basis of independence, and acquiring the rich cultural and spiritual heritage, values, traditions and customs of the Uzbek people. It is important to serve as a program. It is no exaggeration to say that the elderly have been respected in our country since time immemorial, and showing respect to them has become a responsibility and a duty of the youth.

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CHALLENGES IN SPEAKING AND LANGUAGE ACQUISITION: A CASE STUDY

Abstract. The basic purpose of SLA learners is to be proficient user in communication and the last major goal of SLA is to achieve high career in one sphere. Speaking skill is the bright example of learned a foreign language. Most of the English learners have challenges with oral language. However, they have plethora vocabulary base, their speaking level are much lower than other aspects: listening, writing, reading and grammar. It is an arduous task to develop the ability of speaking in L2. There are noticeable problems and reasons of speaking aspect and this case study discusses the most encountered problems with reasons and strategies to develop it as an example of one SLA learner.

Keywords: second language acquisition, foreign language, mother tongue, speaking, problem.

Introduction

Second language acquisition is also called sequential language acquisition. Almost every person learns L1 from infancy period. SLA is learning foreign language accept their mother tongue. Briefly explaining, SLA is learning a new language consciously paying attention to grammar, aspects, structures and use of language in various conditions after L1 acquisition. For instance, Uzbek child knows Uzbek language already and goes to Russian offered school. Humanity is eligible to learn L2 at any age. L2 learning connects people to a new atmosphere different from their living conditions.

Literature Review

Generally thinking, speaking is the most significant aspect of language. Because, language users do not need complex grammar structures, too academic vocabulary and professional writing abilities in everyday life. Such kind of formal language elements are vital for specific area of study or work. But, it is challenging to stand without communication. According to Bygate (1987), speaking is the first attention needed skill. Littlewood (1981) stated that people firstly begin to evaluate L2 knowledge according to speaking skills not from language forms. Bygate (1987) claimed the difference between language knowledge and ability to use it. Furthermore, the concept of competence by Chomsky shows the importance of actual language in concrete conditions by speaker-hearer's knowledge.

1. Teaching speaking

The notion of Speaking ability includes not only utilization of correct grammar rules, but also more broaden skills developed sub-skills pragmatics, social interaction, functions and mechanisms. Goal of teaching shouldn't be to be eligible in communication, vice versa, lessons should be taught in communicative method. Therefore, EFL methodology used by teachers are being emphasized to improve fluency rather than accuracy in contemporary education. Teachers are not in the center of the classroom, since students-centered activities give a chance learning through experience by self-realization. Awareness raising activities, controlled activities and autonomous activities are typical classification of SLA classroom.

2. Oral language learning

Oral language can be developed in any time, anywhere. Improving orality from the beginning of SLA creates a chance to achieve fluency as well as other aspects. Students should be taught to use a foreign language in their daily use such roll call, talk with peers, distribution and collection of learning materials and so on. Results can be observed after a long time by training spontaneous. Vocabulary knowledge should

be developed and enriched consciously, from early childhood without break. Vocabulary is the key point of oral language, lack of vocabulary leads other problematic conditions in SLA. Oral language is a foundation of other aspects: reading, writing and listening.

3. Problems and their factors in speaking

Most of the foreign language learners find speaking part as the most challenging. According to investigations of 12 international students in Australia, Sawir (2005) admitted that conversation in English had considered challenging even though they were learning for years and already gained other aspects of language. Lee (2009) exampled that graduate students who were living USA and still encountered issues in speaking, especially in the whole class discussions. Hosni (2014) claimed that despite of learner long time gained knowledge, oral language is the continuous challenge.

Lukitasari (2008) identified that vocabulary, grammar and pronunciation are the most faced barriers to be effective user of FL. These elements of speaking, plays a major role on fluency and provide self-confidence. Learners always complain bad oral language without realizing their own errors. However, they have been learning SLA for a long time, their almost all language skills are not good as they said. Lack of vocabulary, always makes people irritated due to remember appropriate word for situation. Learners often have fossilization cases, grammar knowledge of them is not enough, that's why they use L1 rules or overgeneralize one grammar structure.

Furthermore, FL learners have an inclination to have a fear doing mistakes, as a result they prefer not speak than speaking with errors in order to avoid enrolling in uncomfortable situations. It was defined by Ozkan, Bada and Genc (2011) that pronunciation is the significant ability and creates much more difficulties for non-native speakers.

Participant profile

For this case study project, I choose my nephew. His name is Muhammadazim and a 16-year-old 10th grade schoolboy. As a teenager, he can't draw attention to SLA because of phone games addiction. He has been learning English sometimes actively and sometimes passively, since 2013, however challenges in SLA is mostly related to speaking aspect. His vocabulary is enough to speak and deliver his knowledge, but they are in his passive vocabulary. He should learn to put his gained knowledge into practice. As we live together I know his knowledge in every subject and in English he knows better, but not appropriate level to his age and studying period. His level is pre-intermediate. Mostly laziness and environmental factors are slowing down participant's speed of EFL learning. More practice should be done to in speaking ability in order to correct grammar and sentence structure mistakes, burst vocabulary range, pronunciation section and to be involved in English conversations.

Actually, he knows Russian and advanced user. Although only Uzbek language is spoken in their home sphere, he has learned Russian in the street by communication style friends from childhood. In order to learn Russian language academically, his parents directed him to Russian offered school. In conclusion, he learned consciously and unconsciously.

Research design

This study is a research problem case study. Sunder (1981) stated that case studies' outcomes provide events, surveys, details to deeply understand an issue or object. Additionally, it is an ability to select extensive data to explore in specific field (Creswell, 2008). Mesec (1998) described a case study as a description and analysis of unique case in order to reach concrete notion with variables, forms, interaction between participants, performance of them. Another major point is that case study is used to highlight a progress in researching area which may be improved or forgotten depending on time and place.

This case study tried to present the second language acquisition as the category of speaking aspect. As English has already admitted as a world language, many non-native countries try to improve English knowledge, gaining good communication skills are

mostly appreciated. However, learners have been facing numerous challenges in SLA. That's why I choose to emphasize speaking skills and problems related to it. In Uzbekistan, as a learner and young English teacher, I observed continuous and difficult challenges in learners speaking ability, despite of long-term education. I tried to show some of these problems as an example of my nephew.

As research design, I chose interview design. Speaking demands longer period to improve and always, there is a question: Why my speaking ability is still unsatisfactory even though I have been learning for a long time? That's why, I wanted to analyze speaking ability with long-time learner. By interviewing, I can be aware of previous and present developmental points of participant.

In addition to this, I tried to identify problems change and I prepared check test on comparing with 2 years old knowledge of participant in English and today's. It helps to set long-term goals for EFL learners and assessment of their own action of learning process.

Data collection and Findings

The participant was interviewed with prepared questions related to English language acquisition and that helped to catch challenges on speaking skill.

Interview design questions:

1. Can you tell me a little about yourself?

2. You have been taught English since you were 5th grade. Is it true?

3. Do you think learning English is important in Uzbekistan?

4. Are you satisfied your English knowledge?

5. Do you think your speaking skill is good?

6. In which English skill are you good at? (listening, reading, writing)

7. In your classroom, does your teacher pay attention to improve pupil's speaking ability?

8. What do you think? What are the main reasons of poor speaking?

9. Speaking in foreign language is difficult. Do you agree?

10. Do you think culture has an effect on learning foreign languages?

11. Is it difficult to learn English in our country? If yes, why?

12. If you have a chance to learn English in real atmosphere where would you go?

Speaker 2

Okay. Mohamed, how are you?

Speaker 1

As usual.

Speaker 2

Okay, good. Now I want to give you some questions related to your study, especially English. So can I ask?

Speaker 1

Yes, of course.

Speaker 2

Can you tell me a little about yourself?

Speaker 1

Okay. My name is Rohan and I'm 16 years old. I'm learning the International House of Dashcam. I have took five points for miles and I like sports and it's my hobby and I like drawing too, doing pictures.

Speaker 2

Very good. You have been taught English since your fifth grade. Is it true?

Speaker 1

No. At school we start with English license in the fifth class, but I started to English when I was eight years old.

Speaker 2

Some understood. Okay. Do you think learning English is important in Pakistan?

Speaker 1

Yes. It's necessary in Pakistan because English communication is becoming very important nowadays. Yes, it's modern. We need it in our future also. And in my profession, I need English. It's very impossible for me to me.

Speaker 2

Okay. Are you satisfied your English knowledge?

Speaker 1

I think no.

Speaker 2

Why?

Speaker 1

Because I have a lot of problems and they wish I have a problem in my speech. And Gary and in speaking grammar is also hard.

Speaker 2

Okay. In which English skills? Are you good at listening? Reading.

Speaker 1

I'm better in listening.

Speaker 2

Understood. In your classroom. Does your teacher pay attention to improve people speaking ability?

Speaker 1

No, she doesn't give an attention because people are a lot of purpose and I'm closer and teachers one. She can't give an attention to each people. That is why we do a lot of exercise as homework.

Speaker 2

Okay. Writing, exercise or really exercise?

Speaker 1

We do only rise exercise.

Speaker 2

Okay. What do you think? What are the main reasons of for speaking.

Speaker 1

Passport speaking cause the both are because in his Vixen we don't have and English atmosphere. And as the streets people don't talk in English. The dog on whose car in the Russian.

Speaker 2

Speaking in foreign language is difficult. Do you agree?

Speaker 1

Yes, it's very difficult. But Russian is more easy for you. Yes.

Speaker 2

Okay. This encounter has an effect on learning foreign language.

Speaker 1

Maybe. No, it doesn't affect.

Speaker 2

No. Is it difficult to learn English in our country?

Speaker 1

Yes, it's very difficult.

Speaker 2

Why? Why do you think so?

Speaker 1

Now I said that we don't have an English atmosphere in Pakistan and people don't talk in English, the streets and at school we don't talk in English and teachers don't talk in English. They speak in spec or in Russian during the lesson.

Speaker 2

Okay. Wild last question. If you have a chance to learn English in real atmosphere, where would you go?

Speaker 1

I would go to the USA or United Kanban and I like to and I would like to go to the Australia.

Speaker 2

Why?

Speaker 1

Australia is a very beautiful country. In my opinion, there is where hot and I like it.

Speaker 2

You mean you like hot water conditions?

Speaker 1

No, I like rain.

Speaker 2

Okay. Otherwise you may go Korean in autumn or spring. Okay.

Speaker 1

In Korea?

Speaker 2

Yeah. Thank you. Mohammadism for your extension and answers.

According to interview, Muhammadazim has some speaking problems. Firstly, he has some listening and catching meaning challenges. In some cases, questions were not understandable at first but tried to answers at least one sentence. He has vocabulary knowledge but can not use synonyms, antonyms. He did repetitions a lot and some gram-

mar mistakes. Overall, except some difficulties, he can explain his ideas or feelings easily. The plus point is that he can realize his own mistakes and deficiencies. Mostly, his communication skills were influenced by lack of knowledge in given topics and lack of attention to details. If he practices speaking a lot, he can be goon speaker. Generally speaking, he is good learner, but he may be better EFL learner if we take years of learning into consideration.

In order to identify status of challenges in the field of speaking, I gave a table with the instruction. These methods helped to identify major problems and teacher can use it to fulfill students' challenges.

Table 1. – Linguistic factors of difficulties in English seaking. Put "+" according to your expirience 2019

Challenges	Always	Sometimes	Often	Never
Vocabulary			+	
Grammar		+		
Pronunciation			+	
Sentence organization				+
Influence of mother tongue		+		
Expression of ideas				+

Table 2. – Linguistic factors of difficulties in English seaking. Put "+" according to your expirience

Challenges	Always	Sometimes	Often	Never
Vocabulary		+		
Grammar		+		
Pronunciation		+		
Sentence organization				+
Influence of mother tongue				+
Expression of ideas				+

Table 1 shows that Muhammadazim improved his linguistic related problems, however he still has difficulties with grammar. In the future, he should draw attention to vocabulary and pronunciation sections in order to achieve advanced user status.

Table 3. – Psychological factors of difficulties in English seaking. Put "+" according to your expirience 2019

Challenges	Always	Sometimes	Often	Never
Fear of making mistakes			+	
Peer pressure	+			
Fear of teacher penalty			+	
Anxiety	+	+		
Age related chelleng		+		
Lack of self-confidence				

Table 4. – Psychological factors of difficulties in English seaking. Put "+" according to your expirience

Challenges	Always	Sometimes	Often	Never
1	2	3	4	5
Fear of making mistakes				+
Peer pressure		+		

1	2	3	4	5
Fear of teacher penalty				+
Anxiety				+
Age related chelleng				+
Lack of self-confidence				+

Table 5. – Envernomental factors of difficulties in English seaking. Put "+"
according to your expirience according fo knowledgein 2019

Challenges	Always	Often	Sometimes	Never
Lack of English conversation	+			
Lack of support		+		
Lack of practice	+			
Lack of lessons	+			
Insuffcient recourses (text books)	+			
Low participation in class				+

Table 6. – Envernomental factors of difficulties in English seaking.
Put "+" according to your expirience according

Challenges	Always	Often	Sometimes	Never
Lack of English conversation			+	
Lack of support			+	
Lack of practice			+	
Lack of lessons			+	
Insuffcient recourses (text books)	+			
Low participation in class				+

According to Table 1 in 2019 and 2021, we can notice that psychological factors of speaking difficulties almost improved during two years.

Table 3 clarified why speaking skill of participant still include challenges. In 2019, Muhammad-azim has suffered from environmental factors and during two years he could overcome them nearly. Now, he does not pay attention to surrounded factors such as peers, teacher and tries to speak.
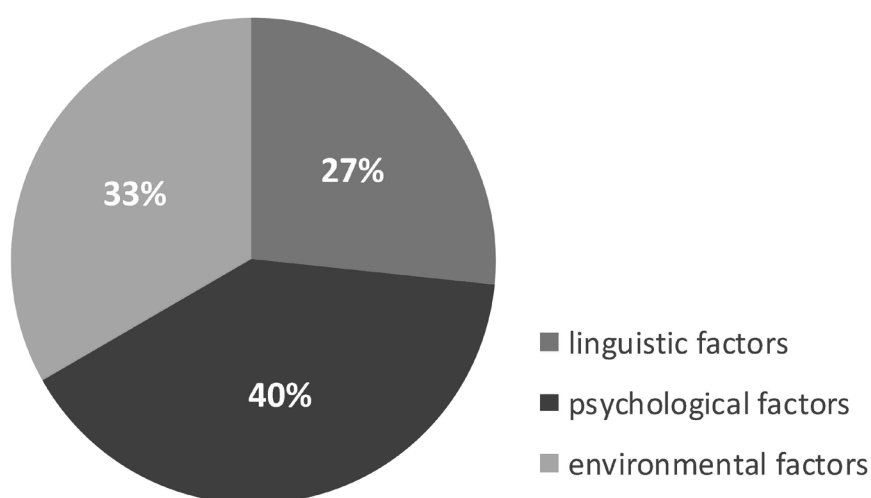

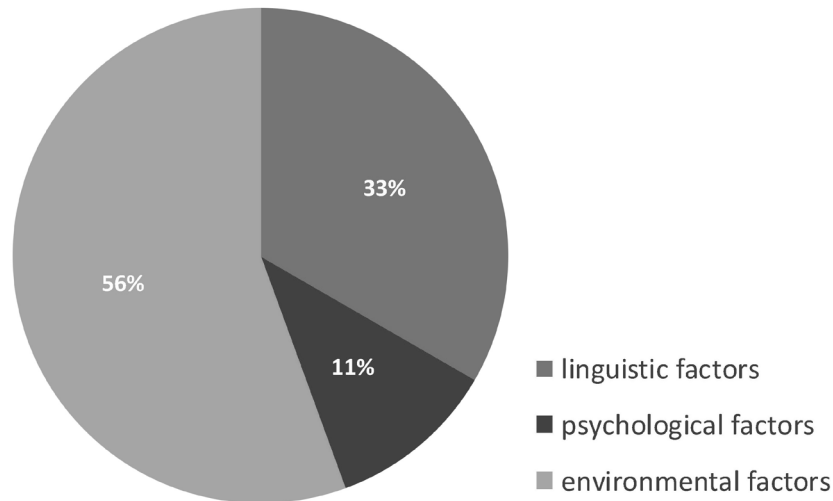Figure 1. Percentages of 3 types of factors of speaking problems in 2019

Figure 2. Percentages of 3 types of factors of speaking problems in 2021

It is clear that rather than linguistic factors, psychological and environmental factors made up the major proportions of speaking problems.

Conclusion

In this case study, problems with speaking ability and language acquisition were highlighted. According to the research findings, EFL learners face various problems in speaking.

The most ordinary problem among students is having lack of vocabulary, expressing ideas and lack of practice. Psychological and environmental factors are main causes of problems. Also, as an example of participant, I witnessed to these conclusions.

Unfortunately, education systems are still based on written grammatical exercises. After graduating high schools, students consider speaking as a challenging and avoid to talk in English. They are not used to do communication directed tasks and understanding lecturers will be problematic. To tackle with such kind of situations, they should be taught to communicate step-by-step attempts from early teaching and learning period.

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ESSENCE, CONTENT AND CHARACTERISTICS OF THE METHODOLOGICAL ACTIVITY OF A TEACHER OF VOCATIONAL TRAINING

Abstract. The article is devoted to the issues of methodological activity of a teacher of professional education. Methodological activity has not yet been fully explored and has not been described as a separate type of teacher professional activity. There are three views on the definition of methodological activity in today's pedagogical and methodological literature. Research shows that the methodological (teaching) activities of a teacher of vocational education include design, technological (implementation) and analytical activities.

Keywords: methodical activity, design activity, constructive activity, normalized activity, analytical activity, educational activity, organizational and managerial activity, research activity, vocational training teacher.

Introduction

Methodological activity has not yet been fully explored and has not been described as a separate type of teacher professional activity. There are three views on the definition of methodological activity in today's pedagogical and methodological literature [1; 2].

At first glance, the methodological activity focuses on methodological work related to the teacher's self-education, work with didactic tools and professional development in the field of science.

The second is that methodological activity is considered to be related to activities related to the teaching of a particular subject. In this case, the authors do not take into account the specific features of the teacher's methodological and educational activities, and use terms such as "methodical activity", "teaching activity" and "educational activity" as synonyms.

Researchers who follow the third point of view interpret methodological activity as a set of relatively independent skills that are clearly expressed in the structure of professional and pedagogical activity.

On the other hand, which we support, methodological activity is interpreted as an activity related to teaching.

Materials and methods

Teacher-practitioners recognize the specific features and importance of methodological activity. In terms of importance, it ranks third after teaching and educating the subject.

It is not possible to directly observe the methodological activity of a teacher, only to analyze and observe his teaching activity. Methodical activity, methods and techniques of its implementation is a complex process of thinking. In order to differentiate the pedagogical process and its provision: methodological, logistical or organizational, it is necessary to identify differences in the subject of their activities.

The purpose of the methodological activity is to serve the teaching practice.

The object of methodical activity of a teacher of professional education is the process of formation of professional knowledge, skills and abilities.

The subject of methodical activity consists of various methods and techniques, methods of regulating the process of implementation and formation of new knowledge and skills, taking into account the specific features of a particular subject. This activity is indirectly reflected in the methodological products (results) created in the field of methodological design and construction.

Tasks of methodical activity are:

– design activities related to long-term planning of educational content and development of teaching content, planning and preparation of educational activities;

– constructive activity, including the planning of new lessons (selection, compositional design of educational information), a system of actions that lead to interaction between teachers and students in the process of formation of new knowledge and professional skills;

– normative activity that promotes the implementation of educational standards, curriculum requirements, conditions for the implementation of the educational process in this type of educational institution;

– analytical activity.

The methodological activity of a professional education teacher is primarily aimed at developing in students (although it is not limited to this) the knowledge, skills and abilities in their profession, as well as the nature of activities, abilities, interests and so on.

The methodological (teaching) activities of a professional education teacher include design, technological (implementation) and analytical activities at the primary level, as research shows [3, 4].

In the process of identifying and assessing the status of methodological activity, it should be noted that this activity depends on both the laws of development of pedagogical science and the laws of implementation, and is aimed at predicting the pedagogical activity itself.

In determining the content of a professional education teacher's methodological activity, it is also nec-essary to take into account the processing, transmission and assimilation of a continuously growing flow of information, which is not possible in traditional forms and methods of teaching. In addition, the development of didactic technologies removes outdated patterns of classical forms and methods of teaching. All this requires new approaches to the organization of the evolving data flow processing, new forms of hard shells and new approaches to the educational process that are not surrounded by their classical structure.

In the process of developing, analyzing, and evaluating a predictive model of methodological activity, both the individual student and the student team must take into account the fact that they themselves are constantly evolving, evolving objects. That is, a favorable effect is possible in order to change them, only in a correspondingly dynamic and mobile meta-system, dynamic systems, as in the case of the reading process. The dynamics and mobility of the learning process are reflected, in particular, in changes in psychological attitudes, ethics, passions, demographic situations, and more [5].

Teaching involves the processing and assimilation of new information, a new understanding of things and events, and insights into the world around us. This process implies that change is inevitable over time.

The dynamic process of teaching is constantly changing with its underlying layer – the didactic knowledge system, which, in turn, is a dynamic system: the structure, the content of knowledge is constantly defined, supplemented, although the structure of the didactic knowledge system remains virtually unchanged, ie the number of didactic knowledge blocks remains the same. remains, but each is filled with new content. This dynamic system of knowledge is reflected in the projects of the learning process, their implementation and analysis, developed by the engineer-educator. In other words, in the mobile process of teaching, the methodological activity of a professional education teacher as a whole is dynamic in its constituents – the development, implementation and analysis of projects of the teaching process.

Discussion

The study and analysis of the methodological activities of a professional education teacher was conducted on the basis of existing research in this area. Within the framework of solving these tasks, Russian scientists VV Shapkin and VA Makushev [6], E. F. Zeer and N. S. Glukhanyuk [7], N. M. Zhukova [8], N. I. Kravtsov [9], A. K. Radchenko [10], N. E. Erganova [11], V. P. Kosyrev [12].

In our opinion, these authors conducted research on the study, analysis and evaluation of the most approximate types of teaching and educational activities of teachers of vocational education institutions, which adequately reflect the general state of the methodological activity of a teacher of vocational education.

Therefore, its structure is a set of different types of activities: planning and design of theoretical and practical lessons; analysis of educational and program documents (analysis of educational and program documents and methodical complexes); development and analysis of theoretical and practical curriculum; planning a system of theoretical and practical lessons; Distinguish the content of teaching materials and educational and production work for theoretical and practical lessons; modeling the forms of presentation of educational material in the classroom; constructing students' activities to develop technical understanding and practical skills; managing and evaluating student performance in the classroom; preparation for the lesson and reflections on their activities during the course.

Apparently, as the authors objectively considered, "these activities do not cover all the diversity of pedagogical practice of a professional education teacher". In the process of learning professional teaching methodology, prospective teachers will only acquire basic methodological skills. All systems of methodical activity are formed and improved in the process of practical work of the teacher.

We all know that not every teacher can start methodical work at once. Initially, the young teacher begins to master the process of teaching their subject, the search for successful methods, the development of methodological developments in the subject, the choice of visual aids, teaching materials, logistics. It takes 1 to 3 years to understand the importance of methodological activity for learning outcomes. The peculiarity of the methodological activity of the teacher in this period is the indisputable description of the methodological component in the general structure of professional and pedagogical activity.

Helps the teacher to understand that the impact of methodological developments (products) on learning outcomes is significant in order to understand that methodological activities actually have a completely different character than teaching activities.

In determining the type of methodological activity is based on the content of the functional component of pedagogical activity.

The type of methodological activity is a stable order of planning, design, selection and application of teaching aids for a particular subject, which determines their development and improvement.

Types of methodical activities performed by teachers of professional education include:

- Analysis of educational and program documents, methodical complexes;
- methodical analysis of educational material;
- planning a system of theoretical and practical lessons;
- modeling and design of forms of presentation of educational information in the classroom;
- design activities for the formation of technical understanding and practical skills of students;
- development of teaching methods on the subject;
- development of types and forms of control of professional knowledge, skills and abilities;
- management and evaluation of students' learning activities;
- reflect on their work in preparing for the lesson and analyzing its results.

These types of methodological activities, of course, do not cover all the diversity of methodological practices of professional teachers. Learners acquire such types in the process of methodical training that they ensure the readiness of the teacher for the lessons.

Assessing the importance and complexity of certain types of methodological activities V. V. Shapkin and V. A. Markushevs [6]. Through the use of questionnaires and methods of comprehensive self-assessment, the most complex and important components of the professional pedagogical activity of teachers and masters of professional education in their educational activities were identified.

The list of the most important components of the methodological activity of teachers of general and special sciences, identified by them, is as follows:

1) in preparation for the lesson – setting the lesson task (25% of respondents), as well as the separation of tasks and exercises, taking into account the profession (22.7%);

2) in the conduct of the lesson – the formation of activity, initiative, interest in knowledge (35.49%).

The most complex components of direct activity include:

1) in preparation for the lesson – setting the lesson task (25%);

2) separation of tasks and exercises taking into account the profession (31%); writing an abstract (13.6%).

3) in the conduct of the lesson – student management during the lesson (13.6%) and the formation of activity, initiative, interest in knowledge (22.7%).

Pedagogical-analytical research on the study and evaluation of the content of professional pedagogical activity among teachers of special subjects of vocational education institutions in Namangan and Tashkent regions and the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers allowed to determine the most predictable complex behaviors to implement.

According to the results of the expert assessment, the most approximate types of systematic methodological activities include:

1) explanation, demonstration, instruction, assessment and control of knowledge quality, etc.;

2) formation of learning motives;

3) formation of professionally important qualities;

4) forecasting the effectiveness of the educational process.

The assessment of readiness for the implementation of methodological activities was based on the practical work of teachers in vocational education institutions (average work experience of 10 years), which can assess and distinguish the importance of the most typical types of activities performed by a professional education teacher. The order of importance of activities in the hierarchical hierarchy is shown in Table 1.

Table 1. – The most important and typical types of activities of a professional education teacher

№	Typical types of professional education teacher activities	Significance, in percent
1.	Implement the learning process	26
2.	Organization and conduct of educational work	14
3.	Designing the learning process	13
4.	Development and preparation of equipment for the learning process	11
5.	Designing the educational process	10
6.	Analysis of the learning process	9
7.	Use of training equipment	8

As can be seen from the table, the most important and labor-intensive types of methodological activity of teachers and masters of vocational education are:

1) implementation of the educational process (26%);

2) organization and conduct of educational work (14%);

3) design of the educational process (13%) and others.

Thus, methodical activity is an independent professional activity of a teacher in the design, development and construction of teaching aids that provide regulation of teaching and learning activities in a particular subject or cycle of academic disciplines.

The work of teachers who are beginning to teach special subjects shows

that the main difficulty in them is the separation of the studied material and its transformation into teaching material, modification of knowledge, taking into account the level of preparation, age and future profession of students.

The views of the authors on the difficulties in the implementation of educational activities were also confirmed. Most of the teachers surveyed find it difficult to work with parents on important components of learning activities, such as extracurricular activities and the organization of extracurricular activities in science. In defining the goals and objectives of the lesson, the educational tasks of the lesson are formed in a suspended and vague way. In most cases, they do not correspond to the nature of the teaching material and the methodological idea of the lesson, their implementation is homogeneous, linear in nature.

It was also found that the pedagogical effectiveness of any education is primarily the creation of subjective conditions for the teacher to confirm positive attitudes based on the acquisition of knowledge in students [7].

Later (in 2005) these data were compiled by T. V. This was confirmed by the results of Pidakova's research on the professional formation of a professional education teacher. Her research has identified the challenges and challenges that teachers who are just starting their careers face throughout their careers. One of the main methodological problems in their professional and pedagogical activities is the difficulty of preparing for lessons: the separation of the content of educational material, the design of the lesson, the choice of appropriate methodological methods, and others.

The personal and professional characteristics of professional education teachers allow us to say that there is a "block of qualities" that is necessary in dealing with students and has a positive effect on their interaction with them. These are emotional-volitional, didactic and communicative blocks.

A comprehensive study of teachers of special subjects of vocational education institutions in Tashkent and Namangan regions shows that their readiness to carry out certain activities is within the following limits (in percent):

– methodical (teaching) – 61;
– educational – 26;
– Organizational and management – 22;
– research – 14.

In our opinion, the data indicate that the methodological training of specialists is insufficient, there is a lack of focus and optimization among the individual types of training.

Conclusion

Thus, the organizers, who constitute the content of the methodological activity of a professional education teacher, define the role and function of each in the system of methodical activity, were determined empirically.

A list of the most important and complex ones for performing systemic actions was identified. It was also found that vocational education teachers face significant challenges in their extracurricular activities and activities that require a similar creative approach.

According to the subjects, the fact that the state of methodical behavior is determined by self-assessment corresponds to the formation of a sufficient lev-

el for the implementation of professional pedagogical activity. However, such an assessment meets the conditions of the information-transfer technology of the training in which this activity is carried out.

In the context of the transition to new technologies of teaching in vocational education institutions, vocational education requires the teacher to acquire skills in a different system with a different structure and content.

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Section 4. Education system

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CRITERIA FOR TEACHING INTEGRAL STEM TOPICS (iSTEM) IN VIETNAM HIGH SCHOOL

Abstract. STEM education is a suitable model for innovating Vietnam's education, focusing on developing students' abilities and qualities. STEM-integrated teaching is essential in high schools to develop students' thinking and creativity, communication and cooperation abilities to meet the needs of the country's development. Building an integrated STEM topic (referred to as iSTEM topic) for single-subject teaching is an issue that many teachers are interested in, especially in the 2018 General Education Program. What criteria to build a topic integrating STEM in single-subject teaching of current general education curricula? This is the research question in this paper. Based on the survey, analysis and evaluation of the existing iSTEM topic criteria, we propose a set of criteria for implementing iSTEM topic design in teaching Physics at high schools in Vietnam.

Keywords: STEM-integrated topic, STEM integrated topic criteria, iSTEM topic.

1. Approach

The current general education program of Vietnam (2001) implements integrated education at the primary level (natural and social subjects, science subjects); single-subject education in secondary schools and high schools, the connection and integration between subjects are expressed quite separated in the curriculum.

Overcoming that situation, since 2012 the Ministry of Education and Training has organized a contest "Teaching by integrated topics" for high school teachers, and a contest "Applying interdisciplinary knowledge to solve practical problems" for high school students. The contest is spontaneous, unpublished research about this entire activity, drawing theoretical conclusions about the design of STEM-integrated topics so that teachers can apply it widely.

In the 2018 general education program [1], STEM education is more oriented; Specifically: increasing integration in the lower grades (Natural Science subjects in secondary school), having a full range of S, T, E, M subjects in high school: Math (compulsory subject group), Physics, Chemistry, Biology, Technology, Informatics (elective subjects group); in which the time spent on Technology and Informatics subjects is significantly increased compared to the current program. However, regarding the integration of STEM subjects, the 2018 program remains open. Teachers have to self-design and organize teaching of STEM-integrated topics in their subjects, for local educational content, elective topics, and experiential activities [1]. Official Dispatch 3089/BGDĐT – GDTrH dated August 14, 2020 on the implementation of STEM education in high

schools [2] has more detailed instructions, but there are still some unresolved issues, as the criteria for STEM lessons/topics are still according to Official Letter 5555/BGDĐT – GDTrH dated October 8, 2014 (applicable to all lessons).

This is a new task that causes many difficulties for teachers: How to design and organize STEM-integrated subject teaching in single-subject teaching (physics) in high school is a research question that we solve in this article.

2. Research content and research results

STEM is an abbreviation for English, S – Science (including Natural Sciences such as Physics, Chemistry, Biology, Earth Science), T – Technology, E – Engineering and M – Mathematics.

STEM education is a term with two meanings. The first meaning is the education of Science, Technology, Engineering and Mathematics subjects. The second meaning, is education that integrates the above subjects (Integrated STEM Education, abbreviated iSTEM education), this is an interdisciplinary approach towards developing learners' competencies, preparing human resources for the future careers in STEM fields such as Natural Science (S), Technology (T), Engineering (E), Mathematics (M).

In Vietnam, STEM education is mostly understood in the second sense. In the 2018 general education program, the Ministry of Education and Training stated that "STEM education is an educational model based on an interdisciplinary approach, helping students apply scientific, technological and mathematics to solve practical problems in specific contexts" [1]. Forms of STEM organization identified under [2] are:

1) Teaching science subjects according to iSTEM lessons (called in international languages);

2) Organize a STEM experiential activity (club or practical experience activities).

3) Organizing scientific and technical research activities (scientific research contests at all levels, STEM festivals).

In which form (1) is the main form, mass implementation for all students, STEM lessons/topics follow an integrated or interdisciplinary approach, the content closely follows the general education curriculum, called in international language as iSTEM lesson/topic.

We focus on researching and building a theoretical framework for this concept – the topic of integrated STEM teaching (abbreviation of iSTEM topic), hoping to be able to serve as a guide for implementing the main form of STEM teaching in Vietnamese high school.

2.1. Define iSTEM topic concept

The topic iSTEM is the term used when it comes to teaching interdisciplinary topics, integrating knowledge and skills in Physics, Chemistry, Biology, Technology, Informatics and Mathematics.

From the research on STEM integrated education, we determine the concept of the iSTEM topic as follows

The integrated STEM topic teaching (referred to as iSTEM topic for short) includes the *content and method of organizing learning activities* based on the technical design process so that students:

– Self-reliance in acquiring knowledge, skills and requirements in the educational program of two or more subjects in Physics, Chemistry, Biology, Technology, Informatics, Mathematics.

– Use that knowledge as a scientific basis to create meaningful practical problem-solving products.

2.2. Criteria of an iSTEM topic

2.2.1. Analysis and evaluation of published research results on the topic criteria iSTEM

The criterion of an iSTEM topic is a set of signs to identify and evaluate a teaching topic as an iSTEM topic or not, the English term is Conceptual frameworks for the evaluation of integrated STEM unit.

Not many research results on this issue. Analyzing the published research results on the criteria of an iSTEM topic, we get Table 1 below.

Table 1. – Published results on iSTEM topic criteria

Ministry of Education and Training (2018) [3].	Nguyen Thanh Nga and associates (2019) [4].	Le Xuan Quang (2017) [5].	Moore and associates (2014) [6].	Guzey and associates (2016) [7].	Meester and associates (2021) [8].
1/ Solve practical problems; 2/ Structure that combines the scientific process and the engineering design process; 3/ Exploring Activities, creating products; 4/ Constructive group activities; 5/ The content is mainly from the science and math subjects in the program; 6/ The teaching process has many correct answers, considering failure is necessary in learning.	1/ Solve practical problems; 2/ Knowledge in the STEM field; 3/ Activity – practice orientation; 4/ Teamwork.	1/ Solve practical problems; 2/ Applying knowledge in STEM subjects; 3/ Practice orientation 4/ Encourage teamwork.	1/ Fascinating and motivating context 2/ Engineering design challenge; 3/ An opportunity to learn from failure through redesign; 4/ Math and (or) science content; 5/ Student centered method; 6/ Teamwork and communication.	1/ Fascinating and motivating context; 2/ Engineering design challenge; 3/ Integrating scientific content; 4/ Math content integration; 5/ Teaching strategies; 6/ Teamwork; 7/ Communication; 8/ Evaluation; 9/ Organization.	1/ Problem-centered learning; 2/ Question-based learning and design; 3/ Integrate STEM learning content; 4/ Collaborative learning; 5/ Research-based learning.

The above-mentioned sets of criteria have shown the most basic characteristics of an iSTEM topic such as: integration of STEM learning contents, collaborative learning, design-based learning; However, there are still some limitations:

– Not arranged according to a unified logic (in all 6 works), so it is difficult to control.

– Criteria "Practical problems" of [3; 4; 5; 8] are general, not specific; there are many practical problems that are not suitable with the psycho-physiological characteristics and abilities of high school students; need to be more clearly defined. The works [6; 7] have overcome that limitation: The context is attractive and motivating, making learners have interest, needs and beliefs to solve practical problems.

– Technical product or process (even simple) must be a challenge for learners to overcome, thereby connecting knowledge of subjects S, T, E, M, bringing practical meaning of that knowledge. Work [3] states only the product criteria, but it is not clear what engineering design challenge was required to create this product; Works [4; 5] lack this criterion; works [6; 7] raise technical design challenges, but do not explicitly specify product criteria, work [8] do not explicitly state this criterion.

– Students' products need to have various versions, not excluding the faulty version, which is realizing the technical design process in creative activities, works [4; 5; 7; 8] does not have this criterion while works [3; 6] have it (criteria 6 [3], criterion 3 of [6]).

– The set of 9 criteria of [7] is too much and criteria 5, 7, 8, 9 are not specific. Any teaching process has these elements, but there are no specific signs for teaching STEM topics about these factors.

– In addition, the criteria 2 [4] "gathering knowledge in the STEM field" is too wide, possibly beyond the general education curriculum, causing overload for students.

2.2.2. Proposing a set of criteria to identify and evaluate iSTEM topics

To overcome the above limitations, carefully refer to the research results of domestic and foreign authors, we propose the following set of criteria for identifying and evaluating iSTEM teaching topics:

Logic of building a set of criteria: elements of the teaching process. Any teaching process includes 5 elements: Objectives, Contents, Methods, Organizational Forms, Testing and Evaluation. This is the basis for arranging the criteria of STEM topics.

Objective Criteria (Criterion M): The topic must be rooted in an interesting real-world problem that motivates learners to overcome (a) moderate engineering design challenge, creating a product to solve the problem..

Content Criteria (Criteria N): The topic must cover the knowledge and skills of the educational program in S, T, E, M (Physics, Chemistry, Biology, Mathematics, Technology, Informatics).

Criteria for the relationship between objectives and content (Criteria M&N): The scientific basis of the product (objective) is the knowledge of S, T, E, M subjects of the educational program (content).

This relationship should be visualized with a concept diagram (Conceptual Flow Graphic abbreviated CFG) [9].

Methodological Criteria (Criterion P): Learning activities must be organized according to the engineering design process.

Criteria on organizational form (criteria T): Students work in groups inside and outside the classroom to solve problems.

Evaluation criteria (Criterion D): The student's subject learning outcomes must be the physical product of several different versions that do not exclude the faulty version. Evaluation of student learning outcomes and the development of students' abilities are based on the results of this product assessment and the process of creating that product.

3. Conclusion

This set of iSTEM topic criteria is a theoretical framework for building iSTEM topics in single-subject teaching in high schools. We polled teachers about this set of criteria to assess the feasibility of applying; Due to the limitation of the article size, we cannot publish the specific results of the teacher survey, but the overall result is that more than 90% of the teachers surveyed believe that the set of identification and assessment criteria of iSTEM topic is necessary, transparent, easy to control; is a handbook for teachers to build iSTEM topics.

We have also applied to build iSTEM topic for internal subject level (Physics), part and full iSTEM levels. The results mentioned above will be published in other papers.

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Contents