

16+

ISSN (p) 2411-7161 ISSN (e) 2712-9500

Nº 4/2024

НАУЧНЫЙ ЖУРНАЛ «IN SITU»

НАУЧНЫЙ ЖУРНАЛ «IN SITU»

Учредитель:

Общество с ограниченной ответственностью «Издательство «Научная артель»

> ISSN (p) 2411-7161 ISSN (e) 2712-9500

Периодичность: 1 раз в месяц

Журнал размещается в Научной электронной библиотеке elibrary.ru по договору №511-08/2015 от 06.08.2015

Журнал размещен в международном каталоге периодических изданий Ulruch's Periodicals Directory.

> Верстка: Мартиросян О.В. Редактор/корректор: Мартиросян Г.В.

Учредитель, издатель и редакция научного журнала «IN SITU» Академическое издательство «Научная артель»: +7 (495) 514 80 82 https://sciartel.ru info@sciartel.ru 450057, ул. Салавата 15

> Подписано в печать 28.04.2024 г. Формат 60х90/8 Усл. печ. л. 15.08 Тираж 500.

Отпечатано

в редакционно-издательском отделе академического издательства «Научная артель» https://sciartel.ru info@sciartel.ru +7 (495) 514 80 82

Цена свободная. Распространяется по подписке.

Все статьи проходят экспертную проверку. Точка зрения редакции не всегда совпадает с точкой зрения авторов публикуемых статей.

Авторы статей несут полную ответственность за содержание статей и за сам факт их публикации. Редакция не несет ответственности перед авторами и/или третьими лицами за возможный ущерб, вызванный публикацией статьи.

При использовании и заимствовании материалов, опубликованных в научном журнале, ссылка на журнал обязательна

Главный редактор:

Сукиасян Асатур Альбертович, к.э.н.

Редакционный совет:

Абидова Гулмира Шухратовна, д.т.н. Авазов Сардоржон Эркин угли, д.с.-х.н.

Агафонов Юрий Алексеевич, д.м.н.

Алейникова Елена Владимировна, д.гос.упр.

Алиев Закир Гусейн оглы, д.фил.агр.н.

Ашрапов Баходурджон Пулотович, к.фил.н.

Бабаян Анжела Владиславовна, д.пед.н.

Баишева Зиля Вагизовна, д.фил.н. Булатова Айсылу Ильдаровна, к.соц.н.

Бурак Леонид Чеславович, к.т.н., PhD

Ванесян Ашот Саркисович, д.м.н.

Васильев Федор Петрович. д.ю.н., член РАЮН

Вельчинская Елена Васильевна, д.фарм.н.

Виневская Анна Вячеславовна, к.пед.н.

Габрусь Андрей Александрович, к.э.н.

Галимова Гузалия Абкадировна, к.э.н.

Гетманская Елена Валентиновна, д.пед.н.

Гимранова Гузель Хамидулловна, к.э.н. Григорьев Михаил Федосеевич, к.с.-х.н.

Грузинская Екатерина Игоревна, к.ю.н.

Гулиев Игбал Адилевич, к.э.н.

Датий Алексей Васильевич, д.м.н.

Долгов Дмитрий Иванович, к.э.н.

Дусматов Абдурахим Дусматович, к. т. н. Ежкова Нина Сергеевна, д.пед.н.

Екшикеев Тагер Кадырович, к.э.н.

Епхиева Марина Константиновна, к.пед.н., проф. РАЕ

Ефременко Евгений Сергеевич, к.м.н.

Закиров Мунавир Закиевич, к.т.н.

Зарипов Xvcан Баходирович. PhD. Иванова Нионила Ивановна, д.с.-х.н.

Калужина Светлана Анатольевна, д.х.н

Канарейкин Александр Иванович, к.т.н.

Касимова Дилара Фаритовна, к.э.н.

Киракосян Сусана Арсеновна, к.ю.н.

Киркимбаева Жумагуль Слямбековна, д.вет.н.

Кленина Елена Анатольевна, к.филос.н. Клещина Марина Геннадьевна, к.э.н.,

Козлов Юрий Павлович, д.б.н., заслуженный эколог РФ

Кондрашихин Андрей Борисович, д.э.н. Конопацкова Ольга Михайловна, д.м.н.

Куликова Татьяна Ивановна, к.псих.н.

Курбанаева Лилия Хамматовна, к.э.н.

Курманова Лилия Рашидовна, д.э.н.

Ларионов Максим Викторович, д.б.н.

Малышкина Елена Владимировна, к.и. н. Маркова Надежда Григорьевна, д.пед.н.

Мещерякова Алла Брониславовна, к.э.н.

Мухамадеева Зинфира Фанисовна, к.соц.н. Мухамедова Гулчехра Рихсибаевна, к.пед.н.

Набиев Тухтамурод Сахобович, д.т.н

Песков Аркадий Евгеньевич, к.полит.н.

Половеня Сергей Иванович, к.т.н.

Пономарева Лариса Николаевна, к.э.н.

Почивалов Александр Владимирович, д.м.н.

Прошин Иван Александрович, д.т.н.

Саттарова Рано Кадыровна, к.биол.н.

Сафина Зиля Забировна, к.э.н.

Симонович Николай Евгеньевич, д.псих. н., академик РАЕН

Сирик Марина Сергеевна, к.ю.н.

Смирнов Павел Геннадьевич, к.пед.н. Старцев Андрей Васильевич, д.т.н

Танаева Замфира Рафисовна, д.пед.н.

Терзиев Венелин Кръстев, д.э.н., член РАЕ

Умаров Бехзод Тургунпулатович, д.т.н.

Хайров Расим Золимхон углы, к.пед.н. Хамзаев Иномжон Хамзаевич, к. т. н.

Хасанов Сайдинаби Сайдивалиевич, д.с.-х.н.

Чернышев Андрей Валентинович, д.э.н.

Чиладзе Георгий Бидзинович, д.э.н., д.ю.н., член РАЕ

Шилкина Елена Леонидовна, д.соц.н.

Шкирмонтов Александр Прокопьевич, д.т.н., член-РАЕ

Шляхов Станислав Михайлович, д.физ.-мат.н.

Шошин Сергей Владимирович, к.ю.н.

Юсупов Рахимьян Галимьянович, д.и. н.

Яковишина Татьяна Федоровна, д.т.н.

Янгиров Азат Вазирович, д.э.н. Яруллин Рауль Рафаэллович, д.э.н., член РАЕ

СОДЕРЖАНИЕ

ФИЗИКА

Трутнев А.Ф. МЕХАНИЗМ ОБРАЗОВАНИЯ МАССЫ У ЧЕРНЫХ ДЫР (ГИПОТЕЗА)	7
МАТЕМАТИКА	
Джумаева О., Ханмухаммедов С., Аррыкова С., Шамаммедова О. ИССЛЕДОВАНИЕ АЛГОРИТМОВ ГЛУБОКОГО ОБУЧЕНИЯ ДЛЯ АНАЛИЗА ВРЕМЕННЫХ РЯДОВ В ФИНАНСОВОЙ МАТЕМАТИКЕ	15
культурология	
Атаев Б., Пяливанов К., Мяммедова А. МАХТУМКУЛИ ФРАГИ СВЕТОЧ ТУРКМЕНСКОЙ ЛИТЕРАТУРЫ	19
Векилов Ш., Шатлыков Б., Керимова А. ТУРКМЕНСКИЕ АХАЛТЕКИНСКИЕ СКАКУНЫ	21
Назарова М., Бяшов М., Мухамметдурдыев Д. АХАЛТЕКИНСКИЕ СКАКУНЫ ГОРДОСТЬ И СЛАВА ТУРКМЕНСКОГО НАРОДА	23
РИМИХ	
Аганязова С., Тагенгелдиев В., Сахедова О. ЭЛЕКТРОННАЯ ПРИРОДА ТРОЙНЫХ СВЯЗЕЙ В АЛКИНАХ	26
ТЕХНИКА И ТЕХНОЛОГИЯ	
Анналыев П.Х., Гараев А.М., Гузычыев А.Б.о, Атдаева С.М. ЗАЩИТА КОЛОННЫ СКВАЖИНЫ ОТ КОРРОЗИИ	30
Атамырадова М., Батыров Б., Мухамметкулыев А., Раджабов Н. СИСТЕМЫ ОТОПЛЕНИЯ И ГОРЯЧЕГО ВОДОСНАБЖЕНИЯ	32
Кулакова С., Пирназарова Н., Башимова Л., Аразмедова О. ПРОЕКТ ИСПЫТАТЕЛЬНОЙ УСТАНОВКИ ДЛЯ НАСТРОЙКИ ПРИЕМНИКОВ АМПЛИТУДНО- МОДУЛИРОВАННЫХ СИГНАЛОВ	34
Оразгелдиев В., Музаффаров Р., Сарыев Э., Батыров Э. ИНТЕГРАЦИЯ И ОПТИМИЗАЦИЯ АЛГОРИТМОВ МАШИННОГО ОБУЧЕНИЯ В РАСПРЕДЕЛЕННЫХ ВЫЧИСЛИТЕЛЬНЫХ СРЕДАХ	36
СЕЛЬСКОЕ ХОЗЯЙСТВО	
Акмырадов Т., Клычов А., Батыров Г. ПОНЯТИЕ О ПОЧВЕ И ЕЕ СТРУКТУРА В СЕЛЬСКОМ ХОЗЯЙСТВЕ	40
Аллануров Дж., Байрамова Ш., Сопыева А. РОЛЬ АГРАРНОГО СЕКТОРА В СЕЛЬСКОМ ХОЗЯЙСТВЕ И ЕГО РАЗВИТИИ	42

Аннаев Р., Худайбергенова Г., Худайбердиева Я. ТЕХНОЛОГИЯ ПОЛУЧЕНИЕ КВАСА ИЗ МОЛОЧНОЙ СЫВОРОТКИ	44		
Гулмяммедов Т., Сейдуллаев Б., Сердарова А. ПОНЯТИЕ О ПОЧВЕННОЙ ВЛАЖНОСТИ И ЕЕ КОНЦЕНТРАЦИИ В СЕЛЬСКОМ ХОЗЯЙСТВЕ	47		
Дурдыева А., Кадамова Я. ВЕМЕЛЬНЫЕ РЕСУРСЫ МИРА			
Мурриков Б., Какылова М., Сердарова С. ЛЕСНЫЕ И ВОДНЫЕ РЕСУРСЫ ЗЕМЛИ	51		
Реджепова Г., Тазебаева А., Дурдыев Б. СКООРДИНИРОВАННЫЕ МЕРЫ БОРЬБЫ С ВРЕДИТЕЛЯМИ ЦИТРУСОВЫХ И САДОВЫХ КУЛЬТУР	53		
Сапаров Э., Аннаев Б., Худайбердиев Я. ВАЖНОСТЬ ЗАЩИТЫ РАСТЕНИЙ ОТ ВРЕДИТЕЛЕЙ В СЕЛЬСКОМ ХОЗЯЙСТВЕ	55		
Тахырова О., Реджепов Х., Мыратлыева М. ПОЧВЕННЫЕ КОЛЛОИДЫ И ПОГЛОТИТЕЛЬНАЯ СПОСОБНОСТЬ В СЕЛЬСКОМ ХОЗЯЙСТВЕ	58		
Тяшлиев Э. ЯВЛЕНИЕ ПОЧВООБРАЗОВАНИЯ И ЕГО СОСТАВ В СЕЛЬСКОМ ХОЗЯЙСТВЕ	60		
Хаджимаммедова М., Тойлыев Б, Непесова А. В СЕЛЬСКОМ ХОЗЯЙСТВЕ ЭТО ОРГАНИЧЕСКАЯ ФРАКЦИЯ ТВЕРДОЙ ФАЗЫ ПОЧВЫ	63		
Шадыева 3., Чарыева А., Хабилова А. ВЛИЯНИЕ ОРГАНИЧЕСКОГО ВЕЩЕСТВА НА ТЕКСТУРУ ПОЧВЫ В СЕЛЬСКОМ ХОЗЯЙСТВЕ	66		
история			
Аразов К., Довлетов А. НАЧАЛО ВЕЛИКОЙ ОТЕЧЕСТВЕННОЙ ВОЙНЫ	70		
Сапарова А. ДИЗАЙН ГОРОДА АШХАБАД	72		
ЭКОНОМИКА И УПРАВЛЕНИЕ			
Коваль А.Е., Галимская Е.М. ПОВЫШЕНИЕ ПРИБЫЛИ ПРЕДПРИЯТИЯ В УСЛОВИЯХ СОВРЕМЕННОЙ ЭКОНОМИКИ	75		
Тагангылыджова Г. ВИДЫ И ОСОБЕННОСТИ КОНЦЕПЦИЙ МЕНЕДЖМЕНТА	77		
Тачмухаммедова А. ОСНОВНЫЕ МОМЕНТЫ И ФУНКЦИИ МЕНЕДЖМЕНТА	80		
Тяшлиев Э. ПОВЕДЕНЧЕСКИЕ ТЕСТЫ ПОВЕДЕНИЯ	82		
Хыдыров М., Орунов С., Сейлиханов А. ЦИФРОВАЯ ТРАНСФОРМАЦИЯ И ЕЁ ВЛИЯНИЕ НА КОНКУРЕНТОСПОСОБНОСТЬ ГЛОБАЛЬНЫХ РЫНКОВ: АНАЛИЗ ТРЕНДОВ И СТРАТЕГИЙ	84		

ФИЛОЛОГИЯ

Berdilieva A., Amanmuradova L. HOW TO BECOME A BETTER STUDENT	88			
Duong Thuy Huong	90			
THE TPACK 'S IMPACT ON LANGUAGE TEACHING IN TERTIARY EDUCATION				
Волосков И.В. МЕТОДИКА ИССЛЕДОВАНИЯ ТЕКСТОВ ПО ВОПРОСАМ ЗАЩИТЫ ЧЕСТИ И ДОСТОИНСТВА ГРАЖДАН	96			
ЮРИСПРУДЕНЦИЯ				
Степанова Е.И. ОБЩАЯ ХАРАКТЕРИСТИКА ПОНЯТИЯ УБИЙСТВО	100			
ПЕДАГОГИКА				
Базарбаева А.Ж., Тасбаева Г.М. К ВОПРОСУ ОБУЧЕНИЯ И ВОСПИТАНИЯ ДЕТЕЙ С НАРУШЕНИЯМИ СЛУХА	103			
Мамметджумаева Г., Атаджанов А., Оразнепесов П. ЗНАЧЕНИЕ ДИДАКТИЧЕСКИХ СИСТЕМ И МОДЕЛЕЙ ОБУЧЕНИЯ В ПЕДАГОГИЧЕСКОЙ НАУКЕ	105			
Танрбергенова Д.М., Алеуова Р.Ш. ОТНОШЕНИЕ ДЕТЕЙ СТАРШЕГО ДОШКОЛЬНОГО ВОЗРАСТА К ТРУДУ ВЗРОСЛЫХ И ИХ ЗНАНИЯ О ПРОФЕССИЯХ	108			
Федорова А.В. КРАЕВЕДЧЕСКАЯ ЭКСКУРСИЯ В ПРИРОДУ «АНТРОПОГЕННОЕ ВЛИЯНИЕ НА ФЛОРУ И РАСТИТЕЛЬНОСТЬ РЕКИ СЫЗРАНКИ» (САМАРСКАЯ ОБЛАСТЬ)	110			
МЕДИЦИНА				
Солопова В.А., Байтелова А.И., Щелкунова Л.Н. ИССЛЕДОВАНИЕ МЕХАНИЗМОВ КАНЦЕРОГЕНЕЗА ПРОФЕССИОНАЛЬНОГО РАКА	116			
Турсымуратова С.Е. ПСИХИЧЕСКИЕ СВОЙСТВА И СОСТОЯНИЯ ЛИЧНОСТИ СТУДЕНТОВ-МЕДИКОВ	118			
социология				
Чарыев А., Гуллыкова О., Бабаева С. ОСОБЕННОСТИ ПОДГОТОВКИ «ШВЕДСКОГО СТОЛА» ДЛЯ ГОСТЕЙ	122			
Шабердиева Г., Ягшымурадова М., Мурадова А. ВАЖНОСТЬ ТРУДА В СОЗДАНИИ И ФОРМИРОВАНИИ ЭСТЕТИЧЕСКИХ ЧУВСТВ	124			
ГЕОГРАФИЯ				
Карлиева М., Джумаев П., Ораздурдыева П., Бабаева А. РЕСУРСЫ МИРОВОГО ОКЕАНА	127			



ФИЛОЛОГИЯ

organization play a key role in the success of a student, there remains a need for more in-depth research into the mechanisms and strategies for their development. Further research can be aimed at studying effective methods for developing these qualities in students of various ages and educational levels.

Role of Motivation in Learning. It is important to continue research in the field of student motivation to identify the various factors that influence their intrinsic motivation and desire to achieve academic success. This may also include research into the development of motivational programs and strategies for various categories of students.

Optimization of teaching methods. With the development of technology and changing educational paradigms, it has become increasingly important to study the effectiveness of modern teaching methods and adapt them to the needs of modern students. Future research could focus on investigating the effectiveness of different educational platforms, online courses, and interactive techniques.

Sociocultural and individual aspects of learning. It is important to take into account the various sociocultural and individual characteristics of students when developing learning and motivation strategies. Further research may focus on studying the influence of factors such as social environment, cultural characteristics, and personal characteristics on the learning process.

Overall, future research in the field of student success should strive to develop a deeper understanding of how students develop qualities such as self-discipline, motivation, and effective learning methods. This will allow us to develop more effective learning and motivation strategies, as well as improve the quality of education in general.

List of used literature:

- 1. Deci, E. L., & Ryan, R. M. The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 2000, 11(4), 227-268.
- 2. Duckworth, A. L., & Seligman, M. E. Self-discipline outdoes IQ in predicting academic performance of adolescents. Psychological science, 2005, 16(12), 939-944.
- 3. Pintrich, P.R. A motivational science perspective on the role of student motivation in learning and teaching contexts. Journal of Educational Psychology, 2003, 95(4), 667-686.

©Berdilieva A., Amanmuradova L., 2024

Duong Thuy Huong

Hanoi University of Mining and Geology

THE TPACK 'S IMPACT ON LANGUAGE TEACHING IN TERTIARY EDUCATION

Abstract

The rapid changes in technology have significantly impacted various aspects of our daily lives and work, including teaching and learning activities. In recent years, the concept of Technological Pedagogical Content Knowledge (TPACK) has gained prominence evidenced by numerous studies in which the TPACK framework is regarded as a productive way to examine how teachers could integrate educational technology into the classroom to teach the subject matter. TPACK not only serves as a valuable framework for investigating technology integration but also presents opportunities for research in teacher education, professional development, and teacher's use of technology. The paper, therefore, employs secondary data from the extensive literature on the TPACK framework and its application in English language teaching in tertiary

education to explore emerging issues in various studies. The findings reveal the gaps in the TPACK framework used in specific subject domains, emphasizing the necessity for adaptability and profound knowledge on the part of educators when implementing TPACK in specific contexts.

Keywords:

TPACK framework, knowledge base, professional development, language teaching pedagogy.

1. INTRODUCTION

The progress of information technology has recently influenced the English language teaching and learning activities. Research on the instructional uses of technology has revealed that teachers only explore technology and not how to implement it into the teaching and learning process (Mishra & Koehler, 2006). In other words, the teachers lack the knowledge to integrate technology into their teaching effectively, so technology is used as "efficiency aids and extension devices" (McCormick & Scrimshaw, 2001) rather than tools that can "transform the nature of a subject at the most fundamental level" (p. 47). Teachers need to continuously update their skills and invest time in learning new functions or working with existing ones due to the rapid rate of technological change. Those who adapt to these new capabilities enhance their productivity compared to those who do not (Mishra, Koehler, & Kereluik, 2009). Furthermore, "learning technical skills alone is not sufficient, learning how to integrate technologies into teaching is equally important" (p.50) and the presence of Technological Pedagogical Content Knowledge (TPACK) by Mishra & Koehler is a step towards understanding what makes a technology an educational technology, which exist in the interplay between pedagogical knowledge, content knowledge, and technology knowledge. TPACK provides opportunities for conducting research in teacher education, teacher professional development, and teacher's use of technology. It describes how teachers teach subject matter content using specific instructional methods with specific technology in particular contexts. TPACK emerges as a framework for teacher Professional Development (PD), especially in new teaching and learning environments during the COVID-19 period.

The paper aims to examine the literature on the impact of the TPACK framework in language teaching, seeking a comprehensive understanding of its varied applications in educational studies. Additionally, it investigates any identified gaps from prior research in different contexts. The paper also employs secondary data from the extensive literature on the TPACK framework and approach in English language teaching to explore emerging issues in the ways TPACK is used in different studies. The findings from an overall view of literature in TPACK studies may help novice researchers who have the intention of applying the TPACK framework in their research in specific majors.

2. AN OVERVIEW OF TPACK

2.1. The Development of TPACK

Knowledge bases of teacher education have shifted their focus from teacher's content knowledge to pedagogy, emphasizing general pedagogical classroom practices independent of subject matter and often at the expense of the content knowledge (Ball & McDiarmid, 1989). The idea of pedagogical content knowledge (PCK) was first introduced by Shulman (1986) in which PCK represents the merging of content and pedagogy into an understanding of how particular aspects of subject matter are organized, adapted, and represented for instruction. This framework deals with the teacher's teaching process, including "the ways of representing and formulating the subject that make it comprehensible to others" (p. 9). The notion of PCK has attracted scholars in terms of teacher education and the subject matter of education (Cochran et al., 1993; Grossman, 1990; Shulman, 1986). It is regarded as an epistemological concept that bridges the traditionally distinct knowledge bases of content and pedagogy.

The rapid increase and change in technologies make technological knowledge a pivotal part of

teachers' knowledge in their professional development. Based on Shulman's PCK framework, Mishra and Koehler (2006) formulated the TPACK framework which emphasizes the connections, interactions, affordances, and constraints between and among content, pedagogy, and technology. Before Mishra and Koehler (2006), several researchers had attempted to combine ICT (Information and Communication Technology) into Shulman's (1986) model, namely Pierson (2001), Angeli and Valanides (2005), whose studies emphasized the role of teacher's technological knowledge in their teaching. Pierson (2001) stated that "the intersection of these three knowledge areas technological pedagogical content knowledge would define effective technology use" (p. 427). In their model called "ICT-related PCK", Angeli and Valanides (2005) defined several sources of teachers' knowledge base as pedagogical knowledge, subject area knowledge, knowledge of students, knowledge of environmental context, and ICT knowledge. Therefore, knowledge of students and context was added to the model which is different from Pierson's. This kind of knowledge, however, should be included in the pedagogical knowledge of the framework. The development of the TPACK framework by Mishra and Koehler (2006, 2008) has been highly appreciated and gained support from the research community. This new framework for teachers to teach the subject matter which integrates three crucial aspects interconnected with each other. The most important thing is teachers' awareness of how to implement technology in their teaching and learning process.

2.2. The concept of the TPACK framework

TPACK is defined as a fundamental concept of effective teaching that combines technology and pedagogical techniques to construct new comprehension from students' existing knowledge (Mishra & Koehler, 2006). TPACK is also an understanding of the connection and interaction between technological knowledge, content knowledge and pedagogical knowledge in the learning process. The TPACK framework, which is derived from Shulman's idea of PCK, attempts to identify the nature of knowledge required by teachers for technology integration in their teaching. As a form of knowledge, TPACK has been described as being situated, complex, multifaceted, integrative and/or transformative (Koehler & Mishra, 2009). In essence, this is a powerful framework with numerous potential generative applications in research and development concerning the use of ICT in education.

The TPACK framework and its interrelated knowledge components can be described in Figure 1 below.

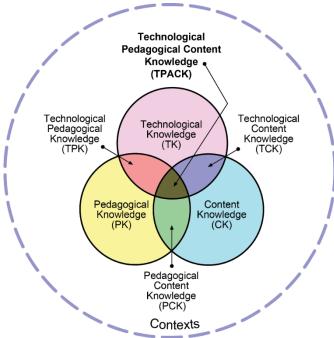


Figure 1: The Technological Pedagogical Content Knowledge Framework (https://matt-koehler.com/tpack2/tpack-explained)

TPACK framework comprises three fundamental components: content knowledge (CK), pedagogical knowledge (PK) and technology knowledge (TK); It also involves four interconnected types of knowledge including pedagogical content knowledge (PCK), technological content knowledge (TCK), technological pedagogical knowledge (TPK) and technological pedagogical content knowledge (TPACK), and context (Koehler & Mishra, 2008).

The TPACK knowledge can be synthesized as in Table 1 below:

Table 1
TPACK Knowledge Types and Their Descriptions (Mishra & Koehler, 2006)

Knowledge type	Description
Technological Knowledge (TK)	Knowledge and skills of traditional, current, and emerging technologies
Content Knowledge (CK)	Knowledge about the subject matter for teaching and learning.
Pedagogical Knowledge (PK)	Knowledge about methods and process of teaching, such as classroom
	management, assessment, and student teaching
Pedagogical Content Knowledge (PCK)	The tacit of blending content and pedagogy for developing better teaching
	practices
Technological Content Knowledge (TCK)	The tacit of blending content and technology for developing better teaching practices.
Technological Pedagogical Knowledge (TPK)	Knowledge of the affordances of technologies and what teaching strategies can be combined with those affordances to leverage learning outcomes.
Technological Pedagogical Content Knowledge (TPACK)	Teachers' understanding of the interplay among content, pedagogy, and technology as well as the procedural knowledge of integrating technologies into their teaching routines.

Technological Pedagogical Content Knowledge (TPACK) is the deep understanding of the complex interplay of all the above components of knowledge to coordinate technology, pedagogy, and content into teaching and learning activities. TPACK is an emergent form of knowledge that exists in a dynamic transactional relationship among the three components and is grounded and situated in specific contexts as symbolized by the outer dotted circle in the TPACK diagram (Mishra & Koehler, 2006, 2008). TPACK, therefore, is a framework for combining three essential types of knowledge—technological, pedagogical, and content knowledge—when integrating educational technology. The central point of this framework, known as TPACK, represents a comprehensive understanding of how to effectively teach using technology. It's crucial to note that TPACK isn't just about knowing each of these three areas separately; instead, it emphasizes understanding how to use technology to teach concepts in a way that improves students' learning experiences.

3. THE IMPACT OF TPACK IN TERTIARY EDUCATION

3.1. The impact of TPACK on language teaching

As aforementioned, TPACK represents an evolving type of knowledge that extends beyond the three fundamental components. TPACK distinguishes itself from individual knowledge of each of the three concepts and can be brought into play by teachers at any time they conduct the teaching. Research on TPACK and its utilization in higher education is crucial in the age of technology.

Tseng et al. (2022) demonstrated the effectiveness of TPACK in designing language courses and platforms with emerging technologies, especially during the challenges posed by the COVID-19 pandemic. Their research highlighted how TPACK-enhanced programs facilitated the seamless integration of new technologies into language curricula. Additionally, studies on TPACK development emphasized the positive outcomes of language teachers' continuous improvement in TPACK proficiency. Interventions such as guidance from teacher educators, role modelling by experienced teachers, and collaborative lesson design among language educators were found to enhance teachers' understanding and application of the TPACK framework. This underscores the importance and effectiveness of TPACK-informed language learning

approaches in promoting successful language education. The TPACK paradigm underscores the pivotal role of teachers as decision-makers in crafting instructional technology environments to meet evolving needs, unaffected by concerns about technology obsolescence. This approach empowers teachers to adapt flexibly to changes in technology, content, and pedagogy, ensuring seamless navigation through educational transformations.

Most of the research was conducted before the COVID-19 pandemic, the ideal time to examine the efficiency of online learning and teaching activities. As a result, there has been an increased focus on applying the TPACK framework in various studies. However, there is a need to establish clear boundaries between elements within the TPACK framework and define the contribution of each construct to gain a deeper understanding of the challenges faced by practitioners. The TPACK framework is generally a generative framework with many more possible future applications that must be redesigned to suit each field study.

3.2. The Impact of TPACK on Teachers' Perceptions

A systematic literature review of the theoretical basis and the practical use of TPACK conducted by Voogt et al. (2013) exposes different understandings of TPACK and technological knowledge, which impacted the way TPACK was measured. Teacher knowledge (TPACK) and beliefs about pedagogy and technology are intertwined and both determine the teacher's decision to teach with technology or not. The research gaps suggest a better understanding of what teachers' knowledge base is for specific subject domains is needed. Moreover, since teacher knowledge and beliefs are inextricably linked, more study on the complicated interaction between TPACK (teacher knowledge), teacher practical knowledge, and teacher beliefs is required. Teachers' craft knowledge (teachers' accumulated wisdom concerning their teaching practice (Van Driel et al., 1998) including knowledge about pedagogy, students, subject matter and the curriculum gained in formal schooling and practice should be a useful concept for professional development strategies aiming to develop TPACK in teachers. The TPACK concept must be redefined in specific subject domains so a teacher can demonstrate TPACK with valid and reliable instruments.

Beliefs about the functionality of specific technologies have great impact on the way teachers integrate technology in their teaching whereas their decisions during lesson preparation as well as execution are motivated by their educational ideals about content and technology rather than by technological affordances. Teachers tend to choose familiar teacher-centered pedagogical solutions when they design online courses even though technological affordances may readily enable a learner-centered approach. However, teachers may have the knowledge and skills to use technology but find it difficult to make it real in practice (Voogt et al., 2013).

3.3. The Impact of TPACK on Teachers' Professional Development

Undoubtedly, the TPACK framework provides several opportunities for researching teacher education, teacher professional development, and teachers' technology use (Mishra et al., 2009). TPACK is not a new concept for teachers to integrate technology, pedagogy and content knowledge; nonetheless, it is a challenge for teachers to undertake the activity as professionals. A review of the literature reveals that several studies on the TPACK framework for Professional Development and English language teaching have been conducted (Bustamante, 2020; Tseng et al., 2022; Van Loi, 2021). The use of TPACK in English language teaching offers a blueprint for English teachers to effectively integrate technology into their instruction and informs our understanding of how teachers' knowledge can be measured within the TPACK framework. This will help identify what additional knowledge base teachers of English to speakers of other languages need to promote language acquisition. The appropriate implementation of TPACK in English language teaching is the combination of three main components: (1) content components in the curriculum—language skills and culture; (2) pedagogical elements in second language teaching—the communicative approach and the task-based learning approach; and (3) technological components—the selection of appropriate technological tools (Keengwe & Kang, 2012).

Results from studies on Professional Development for teachers using TPACK imply that experienced teachers may perceive the value of knowledge about pedagogical and content through their interactions with technology and find the value in the creative and problem-solving capacity of technology. TPACK, undoubtedly, provides a theoretical foundation for the 21st-century teacher and makes a better understanding of appropriate student-oriented pedagogy. Teachers need to use technology that will lead to conceptual understanding through instructional practices that emphasize knowledge structures of pedagogical, mathematical, and cognitive accuracy.

4. CONCLUSION

The TPACK paradigm stresses the role of teachers as decision-makers who create their instructional technology settings as needed, in real time, without concern that those environments may become obsolescent. With this approach, teachers become flexible in teaching through changes in technologies, content, or pedagogies. Mishra et al. (2009) mentioned David Pasig's terminology "melioration" which means "the competence to borrow a concept from a field of knowledge supposedly far removed from his or her domain and adapt it to a pressing challenge in an area of personal knowledge or interest" (Passig, 2007) in comparison with characters of TPACK framework. This type of cognitive ability involves utilizing knowledge from diverse domains and combining them in distinctive and effective ways. In other words, a framework like TPACK requires teachers with "overarching cognitive skills, competencies, and creativity rather than technical understanding and functional knowledge of specific technologies" (Mishra et al., 2009).

As indicated in the preceding literature, most of the research was conducted before the COVID-19 pandemic, the ideal time to examine the efficiency of online learning and teaching activities. Therefore, more studies in applying and TPACK framework. Furthermore, the boundary conditions that enable one element in the TPACK framework to be distinguished from adjacent elements must be clarified and the contribution of each construct in the framework should be defined to a better understanding of issues faced by practitioners. In general, the TPACK framework is a generative framework with many more possible future applications which need to be redesigned to be suitable to each specific field study.

References

- 1. Angeli, C., & Valanides, N. (2005). Preservice elementary teachers as information and communication technology designers: An instructional systems design model based on an expanded view of pedagogical content knowledge. Journal of computer-assisted learning, 21(4), 292-302.
- 2. Ball, D. L., & McDiarmid, G. W. (1989). The subject matter preparation of teachers. National Center for Research on Teacher Education East Lansing, Michigan.
- 3. Cochran, K. F., DeRuiter, J. A., & King, R. A. (1993). Pedagogical content knowing: An integrative model for teacher preparation. Journal of Teacher Education, 44(4), 263-272.
- 4. Dinh, H. T. B. (2015). Factors influencing English as a Foreign Language (EFL) teachers' use of Information and Communication Technology (ICT) in classroom practice: a mixed methods study at Hanoi University, Vietnam RMIT University].
- 5. Grossman, P. L. (1990). The making of a teacher: Teacher knowledge and teacher education. Teachers College Press, Teachers College, Columbia University.
- 6. Keengwe, J., & Kang, J. J. (2012). Teaching with technology: Faculty adoption of educational technology. Society for Information Technology & Teacher Education International Conference,
- 7. Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? Contemporary issues in technology and teacher education, 9(1), 60-70.
- 8. McCormick, R., & Scrimshaw, P. (2001). Information and communications technology, knowledge and pedagogy. Education, Communication & Information, 1(1), 37-57.
- 9. Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers college record, 108(6), 1017-1054.

- 10. Mishra, P., & Koehler, M. J. (2008). Introducing technological pedagogical content knowledge. annual meeting of the American Educational Research Association,
- 11. Mishra, P., Koehler, M. J., & Kereluik, K. (2009). Looking back to the future of educational technology. TechTrends, 53(5), 49.
- 12. Passig, D. (2007). Melioration as a higher thinking skill of future intelligence. Teachers College Record, 109(1), 24-50.
- 13. Pierson, M. E. (2001). Technology integration practice as a function of pedagogical expertise. Journal of research on computing in education, 33(4), 413-430.
- 14. Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. Educational researcher, 15(2), 4-14.
- 15. Tseng, J.-J., Chai, C. S., Tan, L., & Park, M. (2022). A critical review of research on technological pedagogical and content knowledge (TPACK) in language teaching. Computer Assisted Language Learning, 35(4), 948-971.
- 16. Van Driel, J. H., Verloop, N., & De Vos, W. (1998). Developing science teachers' pedagogical content knowledge. Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching, 35(6), 673-695.
- 17. Van Loi, N. (2021). VIETNAMESE HIGH-SCHOOL TEACHERS' PERCEPTIONS OF TPACK IN TEACHING ENGLISH AS A FOREIGN LANGUAGE. European Journal of Education Studies, 8(4).
- 18. Voogt, J., Fisser, P., Pareja Roblin, N., Tondeur, J., & van Braak, J. (2013). Technological pedagogical content knowledge—a review of the literature. Journal of computer-assisted learning, 29(2), 109-121.

©Duong Thuy Huong, 2024

Волосков И.В., к.филол.н., профессор ЧОУ ВПО Национальный гуманитарный институт социального управления

МЕТОДИКА ИССЛЕДОВАНИЯ ТЕКСТОВ ПО ВОПРОСАМ ЗАЩИТЫ ЧЕСТИ И ДОСТОИНСТВА ГРАЖДАН

Аннотация

В статье рассмотрена методика лексико-семантического анализа текста как базовая для проведения судебных и досудебных исследований в области защиты чести, достоинства, деловой репутации граждан.

Ключевые слова:

слово, дефиниция, текст, лексико-семантический анализ

Становление правового государства приводит к увеличению числа гражданских дел по статье Гражданского кодекса «защита чести, достоинства, деловой репутации». Объектами лингвистического исследования чаще всего становятся документы, опубликованные в сети Интернет, переписка, опубликованная в сетях Вотсапп, В Контакте, видеозаписи, выложенные в Ютуб, аудио и видеозаписи, сделанные на мобильные устройства. Часто исследование таких объектов имеет не только лингвистический, а лингво-фонологический, лингво-психологичсекий характер. Потому эксперт лингвист работает в тесном сотрудничестве с фонологом, психологом.

Исследование текстов опирается на методики лексико-семантического анализа текста [1]. Целью исследования текста является установление значения текста, его фрагментов, отдельных слов и