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## ANALYZING METHODS FOR TEACHING IN TECHNICAL UNIVERSITIES

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*Universities continuously refine their courses and programs to meet the demands of the labor market and to keep pace with global trends in technology, science, and social issues. Researching these aspects involves looking at course design, teaching methods, and the integration of emerging fields like artificial intelligence, sustainability, and digital literacy into the curriculum. Universities are increasingly adopting interdisciplinary and flexible learning options, such as online programs and hybrid learning, making higher education more accessible. Research can explore how these offerings affect student engagement, learning outcomes, and employability. Additionally, investigating how universities balance traditional subjects with new, cutting-edge disciplines can offer valuable insights into their adaptability and responsiveness to societal needs.*

**INTRODUCTION.** Universities are hubs of research and innovation. They not only educate students but also drive new knowledge and technological advances that can have a profound impact on industries, economies, and global challenges. Research around university-driven innovation often focuses on the collaborations between academia, industry, and government agencies. Studying university research activities includes looking at how universities foster innovation through research centers, incubators, and partnerships with private companies. Moreover, the increasing emphasis on applied research—research that addresses real-world issues—can be a key area of study. Topics might include how university research leads to new products, patents, or even startups, and the role universities play in shaping regional or national innovation ecosystems. Beyond education and research, universities often engage with the wider community through outreach programs, public

lectures, social initiatives, and partnerships with local organizations. Research in this domain looks at how universities contribute to social cohesion, promote public health, or encourage civic responsibility. For example, universities might collaborate with local schools to improve educational outcomes or work with governments on policy issues such as climate change or public health. Understanding the ways universities engage with communities can provide insights into how these institutions fulfill their societal roles, promote diversity and inclusion, and contribute to regional development.

Research in this area might focus on how universities allocate their budgets across educational programs, research initiatives, student support services, and infrastructure. It can also explore trends in student financial aid, scholarships, and the impact of rising tuition costs on access to higher education. Moreover, investigating the role of philanthropic donations and partnerships with private companies in funding university projects can provide valuable insights into the evolving economics of higher education. The governance and policy decisions made at universities significantly shape their activities and impact on society. Researching these aspects can provide insights into how universities are structured, how decisions are made, and the role of external bodies such as government agencies, accreditation bodies, and professional associations in regulating higher education. Understanding university governance also involves exploring the tension between institutional autonomy and accountability, particularly in relation to funding, educational quality, and access. Examining the policies related to diversity, inclusion, and sustainability can reveal how universities are responding to contemporary challenges. Researching the higher educational activities around universities is a multifaceted endeavor that touches on everything from curriculum development and research output to community engagement and international collaboration. By delving into these areas, researchers can gain a better understanding of how universities are shaping the future of education, fostering innovation, and contributing to societal well-being. The findings from such research not only benefit academic institutions but also provide valuable insights for policymakers, students, and the wider public as they navigate the evolving landscape of higher education.

**Methodology.** Several studies have highlighted the integration of emerging fields into university curricula. Fields such as artificial intelligence, sustainability, and data science have been incorporated to ensure that students are equipped with skills relevant to current industry demands (Bok, 2013). Additionally, the expansion of online and hybrid learning models has been a focal point of research in understanding how these modes of education affect student outcomes and access to learning opportunities (Moore et al., 2020).

Universities have long been the focal point of knowledge creation and innovation. Many studies emphasize the role of universities as key drivers of research that not only advance academic knowledge but also solve real-world problems. According to Etzkowitz et al. (2000), the "Triple Helix" model—highlighting the interaction between universities, industry, and government—has significantly influenced how universities collaborate with external organizations to promote innovation. Universities' increasing involvement in applied research, as opposed to purely theoretical work, is evident in the rise of university-led incubators, research parks, and entrepreneurial initiatives (Mowery & Sampat, 2005). Furthermore, scholars have also examined the commercialization of university research, focusing on patenting, licensing, and the creation of spin-off companies. Research by Hsu (2007) emphasizes how university-driven innovation not only contributes to economic growth but also enhances the global competitiveness of universities.

The literature on community engagement highlights the evolving role of universities in addressing social issues and improving public well-being. Universities have been increasingly involved in outreach programs, social initiatives, and partnerships with local organizations to promote social responsibility and civic engagement. Research by Jacoby (2009) demonstrates that university-community partnerships contribute to solving pressing social problems, such as poverty, health disparities, and educational inequity. The concept of "engaged scholarship," wherein academics collaborate with local communities to generate both academic knowledge and social change, has gained traction in recent years. Scholars like Saltmarsh and Hartley (2011) argue that universities must prioritize social responsibility and civic engagement in their mission, moving beyond the traditional focus on academic research to include broader societal contributions. Internationalization has become a central focus in the global higher education discourse. A substantial body of literature explores how universities participate in global networks, engage in cross-border educational activities, and attract international students. According to Knight (2004), internationalization is not just about student mobility but also encompasses joint research projects, faculty exchanges, and international partnerships. Furthermore, internationalization has been studied in the context of how universities shape global academic discourse and contribute to global challenges, such as climate change and public health. Researchers like de Wit (2011) have noted that internationalization can strengthen universities' global influence and enhance their competitive positioning in the global higher education marketplace.



The financing of higher education has been an ongoing concern, with research focusing on how universities manage their budgets and secure funding from diverse sources. As tuition fees have risen, literature has examined how universities balance income from government grants, private donations, and student fees (Heller, 2001). Many studies have noted that the financial sustainability of universities is increasingly reliant on research funding, endowments, and external partnerships (Cohen & Kaimenakis, 2007). One key area of interest has been the impact of financial pressures on universities' ability to offer affordable education. Some scholars have raised concerns about the growing privatization of higher education and its implications for access and equity (Trow, 2007). Governance structures at universities have also been the subject of substantial research. Literature on university governance examines how decision-making processes affect university policy, academic freedom, and institutional autonomy. According to Clark (1983), the balance between centralized and decentralized governance structures is crucial for universities to effectively respond to both external pressures and internal needs. Research on leadership in higher education emphasizes the importance of strong institutional leadership in navigating the complexities of modern higher education systems (Fullan, 2001). Scholars argue that effective governance and leadership are essential for ensuring the academic quality, financial sustainability, and social responsibility of universities. The existing literature on higher educational activities around universities highlights the multifaceted role these institutions play in society. From curriculum development and research to community engagement and internationalization, universities are dynamic centers that adapt to the evolving needs of students, industries, and global challenges. While there is considerable research on the individual activities that shape university life, a holistic view of how these activities intersect and influence each other remains an area for further exploration. Future research could focus on the synergies between these domains, offering insights into how universities can better align their educational, social, and financial goals to foster a more inclusive, innovative, and sustainable higher education landscape.

**Discussion.** The work of scholars like Bok (2013) and Tuning et al. (2009) underscores the importance of aligning academic programs with both current industry needs and emerging fields like sustainability, data science, and digital technologies. However, this integration does not come without challenges. Universities often face the tension between the expectations of academic rigor and the need for practical, applied learning. As research increasingly informs the design of curricula, universities must balance theoretical knowledge with the practical skills that students need in their future careers. There is also

the issue of funding, as research often requires substantial financial investment, and the resources available may not always align with the educational priorities of the institution. The role of universities in driving research and innovation cannot be overstated. Universities have long been at the center of knowledge creation, but the extent to which this knowledge is translated into economic value and social impact has grown in recent years. The "Triple Helix" model, as discussed by Etzkowitz et al. (2000), highlights the growing collaboration between universities, industry, and government. This partnership has led to increased commercialization of research, the creation of start-ups, and the application of academic discoveries to solve real-world problems. Yet, the commercialization of research also raises critical ethical questions about the commercialization of knowledge. The growing emphasis on patenting, licensing, and profit-generation can sometimes overshadow the intrinsic value of academic research. Universities must therefore find a balance between being agents of innovation and maintaining their primary mission of advancing knowledge for the public good. Furthermore, the increased reliance on external funding sources for research may inadvertently influence the direction of academic inquiry, potentially favoring topics with immediate commercial applications rather than fundamental research that may take years to yield tangible outcomes. As universities expand their focus beyond education and research, community engagement has emerged as an important aspect of their mission. Universities are increasingly involved in addressing societal challenges, whether through partnerships with local organizations, public health initiatives, or volunteer programs. This engagement is not only beneficial for communities but also enhances the educational experience for students, who gain a deeper understanding of the social and cultural issues that shape their world.

However, the concept of community engagement is not without its complexities. Universities often struggle to measure the impact of their community-oriented programs and to ensure that such initiatives are not simply seen as peripheral to the core mission of the institution. The literature suggests that universities must be intentional in their community engagement, ensuring that their activities are aligned with their academic and social values (Saltmarsh & Hartley, 2011). Moreover, universities must navigate the challenge of balancing the needs of the community with the expectations of their stakeholders, such as government agencies, students, and faculty. The increasing internationalization of higher education is another key theme in the literature. Universities have become key players in a global educational marketplace, with student mobility, international research collaborations, and cross-border partnerships becoming more common. This global perspective not only

enhances the learning environment but also fosters cross-cultural understanding and collaboration on global issues such as climate change, public health, and social justice. However, the internationalization of universities is not without its challenges. The rise of global education has contributed to greater competition between universities, particularly for international students and research funding. This competition can sometimes lead to a focus on prestige and rankings rather than the quality of education and research. Moreover, the increasing commercialization of international education has raised concerns about access and affordability, particularly for students from lower-income backgrounds (de Wit, 2011). Universities must ensure that their internationalization efforts are inclusive and that they contribute to the broader goal of making higher education accessible and equitable for all students.

The importance of student life in shaping well-rounded individuals is another critical area of university activity. The literature clearly supports the idea that extracurricular activities, such as leadership programs, sports, and student organizations, contribute significantly to students' personal and professional development. Engaged students tend to perform better academically, develop essential soft skills, and are more likely to engage in lifelong learning (Astin, 1999). However, there are concerns about the pressure placed on students to participate in multiple extracurricular activities while maintaining academic success. The rise of student expectations around employability has led to a competitive campus environment, where students feel compelled to build extensive resumes, sometimes at the cost of their well-being. Universities must strike a balance between fostering student engagement and promoting mental health and well-being. In doing so, they can create environments that encourage holistic development without overwhelming students. Finally, university governance and financial sustainability continue to be significant challenges. As universities adapt to the increasing demands for research output, student diversity, and community engagement, their financial models are under strain. The reliance on tuition fees, government funding, and private donations has made the financial sustainability of universities a critical concern. Research by Cohen & Kaimenakis (2007) highlights how universities are diversifying their revenue streams to remain financially viable, but this creates its own set of issues, including the risk of financial instability and the growing dependence on external partners for funding. Moreover, governance structures are under increasing scrutiny, with debates around institutional autonomy, accountability, and decision-making processes. Universities must navigate the complex relationship between internal governance and external pressures, including government regulations and industry



expectations (Fullan, 2001). Effective governance will be key to ensuring that universities maintain their educational integrity while also adapting to the changing landscape of higher education. The discussion of higher educational activities around universities reveals that these institutions are much more than places of learning—they are complex organizations involved in research, community engagement, global networks, and social responsibility. As universities continue to adapt to the demands of a rapidly changing world, they must navigate the challenges and opportunities presented by the interconnectedness of these activities. Balancing educational goals with the increasing pressures of financial sustainability, community expectations, and global competitiveness will be essential in ensuring that universities continue to thrive and fulfill their critical role in society. Future research should focus on how these various domains of university life intersect and influence each other, providing deeper insights into the evolving nature of higher education.

**Conclusion.** The integration of research with teaching, the promotion of community involvement, and the fostering of global networks all reflect the increasingly interconnected nature of modern higher education. However, these advancements are not without challenges. Universities must navigate the complex balance between maintaining academic rigor and responding to market-driven needs, fostering inclusivity and diversity while managing financial sustainability, and engaging with local communities without losing sight of their global responsibilities. The literature underscores that while universities hold significant potential for driving innovation and social change, they must do so while ensuring equitable access and preserving their foundational mission of advancing knowledge for the public good. Looking ahead, universities will need to continue refining their strategies to address these challenges. This involves not only evolving their educational models but also fostering stronger ties with industries, governments, and local communities to maximize their societal impact.

### References:

1. Палванова, У. Б. (2025). ОСОБЕННОСТИ УСОВЕРШЕНСТВОВАНИЕ МЕХАНИЗМОВ ОРГАНИЗАЦИИ ПРОЦЕССОВ ОБУЧЕНИЯ ПЕРВОЙ ПОМОЩИ. THEORY OF SCIENTIFIC RESEARCHES OF WHOLE WORLD, 1(5), 199-202.
2. Якубова, А. Б., Палванова, У. Б., & Палванова, С. Б. (2018). НОВЕЙШИЕ ПЕДАГОГИЧЕСКИЕ И ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ В ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКЕ СТУДЕНТОВ МЕДИЦИНСКОГО

КОЛЛЕДЖА В ХОРЕЗМСКОЙ ОБЛАСТИ. In Современные медицинские исследования (pp. 22-25).

3. Stepanyan, I. A., Izranov, V. A., Gordova, V. S., Beleckaya, M. A., & Palvanova, U. B. (2021). Ultrasound examination of the liver: the search for the most reproducible and easy to operate measuring method of the right lobe oblique craniocaudal diameter. *Diagnostic radiology and radiotherapy*, 11(4), 68-79.

4. Bahramovna, P. U., Tashpulatovich, T. S., & Botirovna, Y. A. (2025). COMPREHENSIVE AND METHODOLOGICAL ANALYSIS OF DEVELOPING FIRST AID SKILLS IN STUDENTS OF NON-MEDICAL FIELDS. STUDYING THE PROGRESS OF SCIENCE AND ITS SHORTCOMINGS, 1(6), 162-168.

5. Bahramovna, P. U., Tashpulatovich, T. S., & Botirovna, Y. A. (2025). FUNDAMENTALS OF DEVELOPING FIRST AID SKILLS IN STUDENTS: A THEORETICAL ANALYSIS. *JOURNAL OF INTERNATIONAL SCIENTIFIC RESEARCH*, 2(5), 147-153.

6. Bahramovna, P. U. (2025). CHARACTERISTICS OF ENHANCING THE MECHANISMS FOR ORGANIZING FIRST AID TRAINING PROCESSES. *JOURNAL OF INTERNATIONAL SCIENTIFIC RESEARCH*, 2(5), 59-62.

7. Палванова, У. Б., Тургунов, С. Т., & Якубова, А. Б. (2025). СИСТЕМО-МЕТОДИЧЕСКИЙ АНАЛИЗ ФОРМИРОВАНИЯ НАВЫКОВ ПЕРВОЙ ПОМОЩИ У ОБУЧАЮЩИХСЯ НЕМЕДИЦИНСКИХ СПЕЦИАЛЬНОСТЕЙ. *THEORY OF SCIENTIFIC RESEARCHES OF WHOLE WORLD*, 1(5), 203-211.

8. Stepanyan, I. A., Izranov, V. A., Gordova, V. S., Palvanova, U., & Stepanyan, S. A. (2020). The influence of diffuse liver diseases on the size and spleen mass coefficient, prognostic value of indicators. *Virchows Archiv-European Journal of Pathology*, 477(S1), 279-279.

9. Изранов, В. А., Степанян, И. А., Гордова, В. С., & Палванова, У. Б. (2020). ВЛИЯНИЕ УЛЬТРАЗВУКОВОГО ДОСТУПА И ГЛУБИНЫ ДЫХАНИЯ НА КОСОЙ ВЕРТИКАЛЬНЫЙ РАЗМЕР ПРАВОЙ ДОЛИ ПЕЧЕНИ. In *РАДИОЛОГИЯ–2020* (pp. 24-24).

10. Stepanyan, I. A., Izranov, V. A., Gordova, V. S., Palvanova, U., & Stepanyan, S. A. (2020). Correlation of pathological changes in the liver and spleen in patients with cirrhosis. *Virchows Archiv-European Journal of Pathology*, 477(S1), 278-279.



11. Палванова, У. Б., Изранов, В. А., Гордова, В. С., & Якубова, А. Б. (2021). Спленомегалия по УЗИ—есть ли универсальные критерии. *Central Asian Journal of Medical and Natural Science*, 2(3), 52-27.

12. Палванова, У. Б., & Тургунов, С. Т. (2024, August). Обобщение научного исследования по совершенствованию навыков оказания первой помощи студентов не медицинских высших учебных заведений. In *INTERNATIONAL CONFERENCE ON INTERDISCIPLINARY SCIENCE* (Vol. 1, No. 8, pp. 16-17).

13. Палванова, У., Тургунов, С., & Якубова, А. (2024). АНАЛИЗ ПРОЦЕССОВ ОБУЧЕНИЯ НАВЫКАМ ОКАЗАНИЯ ПЕРВОЙ ПОМОЩИ СТУДЕНТОВ НЕ МЕДИЦИНСКИХ ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЙ. *Journal of universal science research*, 2(7), 85-94.

14. Палванова, У. Б. (2024). Значение Формирования Навыков Оказания Первой Помощи У Студентов В Не Медицинских Образовательных Учреждениях. *Periodica Journal of Modern Philosophy, Social Sciences and Humanities*, 27, 93-98.

15. Якубова, А. Б., & Палванова, У. Б. Проблемы здоровья связанные с экологией среди населения Приаралья мақола Научно-медицинский журнал “Авиценна” Выпуск № 13. Кемерово 2017г, 12-15.

16. Batirovna, Y. A., Bahramovna, P. U., Bahramovna, P. S., & Ogli, I. A. U. (2019). Effective treatment of patients with chronic hepatitis, who live in ecologically unfavorable South zone of Aral Sea region. *Наука, образование и культура*, (2 (36)), 50-52.

17. Палванова, У., Якубова, А., & Юсупова, Ш. (2023). УЛЬТРАЗВУКОВОЕ ИССЛЕДОВАНИЕ ПРИ СПЛЕНОМЕГАЛИИ. *Talqin va tadqiqotlar*, 1, 21.

18. Степанян, И. А., Изранов, В. А., Гордова, В. С., Белецкая, М. А., & Палванова, У. Б. (2021). Ультразвуковое исследование печени: поиск наиболее воспроизводимой и удобной в применении методики измерения косого краниокаудального размера правой доли. *Лучевая диагностика и терапия*, 11(4), 68-79.