An Investigation of Teaching and Learning Centers of Ivy League Universities in Terms of Their Contribution to Quality Higher Education

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Abstract: Teaching and learning centers play an important role in ensuring access to high-quality education. The goal of this research is to investigate the teaching and learning centers of Ivy League universities. The research is qualitative, and the document analysis method was preferred. The data obtained from document analysis were subjected to content analysis. Higher education institutions made up the population of the study, and the sample included the web pages of Ivy League University Teaching and Learning Centers, which were chosen using criterion sampling from purposive sampling methods. According to the research findings, Ivy League Teaching and Learning Centers promote quality higher education through active activities in five categories and 26 themes: strengthening academic and administrative staff, supporting students, developing educational programs, and university-community cooperation. These activities are critical for successful outcomes while applying to higher education institutions in Türkiye and other developing nations. Considering the findings of the study, it is thought that these functions, which make Ivy League Universities a powerful actor in the field of education, would be beneficial to be implemented both in Türkiye and around the world. As a matter of fact, teaching and learning centers serve the individual and society as a national social intervention tool where all stakeholders, the curriculum and the educational institution as a learning organization are also developed by taking education beyond the curriculum.

Keywords: Teaching and Learning Centers, Ivy League Universities, Curriculum and Instruction

Sarmaşık Ligi Üniversitelerinin Öğretme ve Öğrenme Merkezlerinin Kaliteli Yükseköğretime Katkıları Açısından İncelenmesi

Öz: Öğretme ve öğrenme merkezleri, yüksek kaliteli eğitime erişimin sağlanmasında hayati bir rol oynamaktadır. Bu çalışmanın amacı, Sarmaşık Ligi üniversitelerinin öğretme ve öğrenme merkezlerini incelemektir. Araştırma nitel bir araştırma olup doküman incelemesi yöntemi tercih edilmiştir. Doküman incelemesinden elde edilen veriler içerik analizine tabi tutulmuştur. Çalışmanın evrenini yükseköğretim kurumları, örneklemini ise amaçlı örnekleme yöntemlerinden ölçüt örnekleme kullanılarak seçilen Sarmaşık Ligi Üniversiteleri öğretme ve öğrenme merkezlerinin web sayfaları oluşturmaktadır. Araştırma bulgularına göre, Sarmaşık Ligi Üniversiteleri öğretme ve öğrenme merkezleri, akademik ve idari personeli güçlendirme, öğrencileri destekleme, eğitim programları geliştirme ve üniversite-toplum iş birliği olmak üzere beş kategori ve 26 temada aktif faaliyetler yoluyla kaliteli yükseköğretimi teşvik etmektedir. Bu faaliyetler, Türkiye ve diğer gelişmekte olan ülkelerdeki yükseköğretim kurumlarına uygulandığında başarılı sonuçlar için kritik öneme sahiptir. Araştırmanın bulguları dikkate alındığında sarmaşık okullarını eğitim sahasında güçlü birer aktör yapan bu fonksiyonların gerek Türkiye gerekse dünya genelinde uygulanmasının faydalı olacağı düşünülmektedir. Nitekim öğretme ve öğrenme merkezleri eğitimi, müfredatın da ötesine taşıyarak tüm paydaşların, programın ve öğrenen bir organizasyon olarak eğitim kurumunun da geliştirildiği ulusal bir sosyal müdahale aracı olarak bireye ve topluma hizmet sunmaktadır.

Anahtar Sözcükler: Öğretme ve Öğrenme Merkezleri, Sarmaşık Ligi Üniversiteleri, Eğitim Programları ve Öğretim

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Teaching and Learning Centers (TLCs), also known as Centers for Teaching Excellence (CTEs), were founded to assist faculty members in developing, evaluating, and improving their teaching skills. Teaching and learning centers aim to contribute to the development of teaching and learning processes at the university level; develop programs aimed at improving and enriching teaching for lecturers; organize orientation programs for new lecturers; offer programs that support students' academic self-development; conduct high-quality research aimed at improving the learning environment; and support the planning and execution of arrangements to improve learning (Frantz et al., 2004). Examining Ivy League colleges' teaching and learning centers is the aim of this study.

TLCs can provide institutional support and promote sustainable innovation in higher education. In general, TLCs at Ivy League universities and other higher education institutions appear at first glance to fulfill an important function in creating conditions that promote student success, support faculty development, address the needs of underrepresented students, and enhance student employability. These facilities ought to be viewed as a supporting resource for ensuring that teaching and learning follow best practices. When the relevant literature is examined, although there are studies that partially or fully refer to these centers, the importance and functions of these centers, there is no research that focuses on a working pattern that makes a standard and systematic contribution to quality education in higher education (Bulut et al., 2023; Callahan & Martin, 2007; Edens & Gilsinan, 2005; Elçi & İşeri, 2022; Frantz et al., 2004; Gardner, 2011; Gollnick & Chin, 1998; Gormaz-Lobos et al., 2021; Lessa et al., 2017; Lopez, 2008; Ma & Bennett, 2021; Martinez et al, 2022; Martinez et al., 2023; Miller & Mehrotra, 2015; Nelson, 2006; ÖzaydınlıkBaykara, 2019; Schumann et al., 2013; Segedin, 2011; Sorcinelli; 2002; Yilmaz, 2020; Zhang, 2012). This study will focus on this working pattern and try to contribute to the literature and practitioners with concrete examples of practices that can benefit Türkiye.

Conceptual Framework

In this section, the conceptual framework of the research will be established by first providing an overview of the Ivy League. This will be followed by an analysis of the league's support functions and a review of relevant studies in the literature that examine these functions.

The Ivy League and its Contribution to Quality Higher Education

The Ivy League universities, many of which have had stellar reputations for more than a century, make up the elite group of American universities. Among the most prestigious universities in the world are these ones: Harvard, Yale, Princeton, Columbia, Brown, Dartmouth, Pennsylvania, and Cornell (Miller et al. 2015). Eight well-established universities in the northeast of the US are called the "Ivy League," after the 19th-century habit of "planting ivy" in that region. These universities also gave this name to the sports league they established among themselves (Yilmaz, 2020).

When the websites of Ivy League universities and the related literature are examined, it can be said that teaching and learning centers make important contributions to education in formal and informal ways with their functions in the following five categories (Özçelik, 1998; Sorcinelli, 2002; Frantz et al., 2004; Ornstein et al., 2012; Schumann et al. 2013; Schwartz & Haynie, 2013; Elçi & İşeri, 2022; Bulut et al., 2023):

    a. Supporting academia,
    b. Supporting the student,
    c. Program development tools,
    d. Supporting university administrative staff and
    e. University-community cooperation.

Supporting Academic and Administrative Staff

The personal, educational, and professional support of university staff is possible through in-service training. In-service training of university staff is generally based on two basic categories: academic and administrative staff. This distinction is based on the criterion that for academic staff, the relevant staff member attends classes at the university; for administrative staff, the job description includes administrative practices, and/or the place of duty is a unit such as the administrative rectorate, human resources, accounting, student

affairs, or coordinatorships. In both situations, the educational institutions offer in-service training as a valuable opportunity for staff growth. According to Karip (2017), in-service training is the process of giving people who work in private and legal companies for a set price or wage the knowledge, abilities, and attitudes they need to perform their jobs. The inadequacy of the pre-service training of the employee, the necessity of adaptation to the change and development of the service, the need for individual development and promotion in the job, and the necessity of gaining some knowledge, skills and habits on the job are conditions that institutions should provide, even if they are not a teaching and learning center. Conversely, training should not be monotonous, repetitive, or clichéd. Additionally, training programs that adhere strictly to the man-hour model and are completed merely as a formality fail to foster genuine growth, as typically provided by institutions. The trainings to be provided should be determined because of the needs analysis to be carried out with a professional staff, and the determined trainings should be designed and put into practice with the dimensions of functioning, evaluation and monitoring (Aydın, 2021; Kavgaoğlu, 2024 Sorcinelli, 2002). Upon reviewing the pertinent literature, various studies have been discovered that highlight the significance of providing in-service training to academic and administrative staff to empower them (Chen et al., 2023; Gormaz-Lobos et al., 2021; Martinez et al., 2022; Martinez et al., 2023, Tondeur et al., 2023).

When considering Ivy League universities, the role of in-service training becomes even more critical due to the high standards of excellence these institutions uphold. Ivy League universities, renowned for their academic rigor and world-class faculty, must ensure that both academic and administrative staff are continuously developing their skills to maintain their esteemed reputation.

For academic staff at Ivy League institutions, in-service training is not merely about meeting the basic requirements of teaching and research but is instead focused on advancing pedagogical methods, fostering cutting-edge research, and enhancing the overall academic environment. These universities often have access to substantial resources, enabling them to offer highly specialized training programs that cater to the unique needs of their faculty. Such programs might include workshops on the latest educational technologies, seminars on innovative research methodologies, and opportunities for interdisciplinary collaboration. By investing in the continuous development of their academic staff, Ivy League universities ensure that their faculty remain leaders in their fields, capable of delivering the highest quality education to their students.

For administrative staff, in-service training at Ivy League universities emphasizes efficiency, leadership, and the ability to adapt to rapidly changing institutional needs. These institutions are complex organizations that require their administrative personnel to be adept at managing various aspects of university operations, from student affairs to financial management. In-service training for administrative staff in the Ivy League often includes leadership development programs, training in the latest administrative software, and workshops on diversity, equity, and inclusion. Such training is crucial for maintaining the seamless operation of the university and ensuring that the institution remains competitive in a global educational landscape.

Moreover, the prestige of Ivy League institutions means that the training provided must go beyond the standard models. These universities cannot afford to implement training programs that are monotonous or purely formalistic. Instead, their in-service training programs are likely to be innovative, research-informed, and tailored to address specific institutional goals and challenges. By conducting thorough needs analyses, Ivy League universities can design training that is relevant and impactful, with a strong emphasis on continuous improvement and professional growth.

In summary, in-service training at Ivy League universities is a critical component of their strategy to maintain excellence. Whether for academic or administrative staff, such training is designed to be rigorous, relevant, and forward-looking, ensuring that all employees are equipped to contribute effectively to the university's mission of academic and operational excellence. This focus on continuous development

underscores the commitment of Ivy League institutions to not only preserving their prestigious status but also to advancing the frontiers of education and administration.

Supporting the Student

Teaching and Learning Centers (TLCs) play a crucial role in enhancing student learning by addressing gaps in classroom instruction and providing additional support where needed. The student's primary responsibility in an educational setting is to engage in learning, which is a cumulative process requiring both strong study discipline and readiness to respond positively to educational tasks, as Küçükahmet (1987) notes. However, when students struggle to recognize, fulfill, or sustain their educational responsibilities, their learning process may become inefficient, leading to a lack of progress, difficulty retaining knowledge, and inadequate preparation for assessments.

In situations where traditional classroom instruction is insufficient or unable to reach every student effectively, TLCs can serve as a complementary resource. By directly or indirectly engaging with students through academic staff, TLCs can offer targeted support and empowerment. This might include supplemental instruction, workshops on effective study habits, or individualized tutoring, all aimed at reinforcing the learning process and ensuring that students can achieve their academic goals.

Moreover, TLCs can also incorporate multicultural pedagogy and inclusive education strategies to address the diverse needs of students. Multicultural pedagogy, as discussed by Banks (1992, 1997, 1999) and others, emphasizes managing tensions that arise from differences such as race, culture, and gender within the educational environment. By promoting equity and understanding, TLCs can create a more inclusive atmosphere that supports all students.

Inclusive education, as advocated by UNESCO, seeks to ensure that all learners, regardless of their differences, have equal access to educational opportunities. This approach minimizes discrimination and encourages active participation in learning for all students. By integrating these principles, TLCs can offer tools that support students in overcoming barriers to learning, thereby empowering them to succeed academically.

A review of the literature highlights the importance of student empowerment in educational settings (Bendik et al., 2023; Gill et al., 2017; Ifenthaler & Şahin, 2023 Ma & Bennett, 2021; Pearlman, 2010; Shephard et al., 2017; Peters et al., 2022;). TLCs, by providing resources and strategies tailored to the needs of both students and educators, can significantly enhance the effectiveness of the educational process. They ensure that where classroom teaching falls short, additional support mechanisms are in place to help students thrive academically.

Program Development and University-Community Cooperation

Curriculum development is a specialized field that requires collaboration (Demirel, 2023). The development of educational programs involves distributing responsibility among a broad spectrum of stakeholders, including teachers, students, administrators, parents, NGOs, and other relevant parties. This multidisciplinary field draws on various disciplines such as philosophy, psychology, economics, and statistics. According to UNESCO (2014, as cited in Özaydınlık Baykara, 2019), countries striving to strengthen their national education systems continue to face significant challenges in including all learners and ensuring equal educational opportunities for everyone. The right to education for all individuals is enshrined in numerous international treaties and documents, both legally binding and non-binding. Consequently, countries have an obligation to respect, protect, and fulfill the right to education for all students. In this context, teaching and learning centers play a crucial role in empowering individuals and transforming societies by contributing to quality education. Higher education holds a unique advantage in realizing these educational functions holistically. However, the quality of education in higher education remains a significant issue today. The United Nations places special emphasis on quality education, categorizing it as the fourth sustainable development goal (SDG4) among the seventeen SDGs (UNTR, 2023). A review of the relevant literature highlights various studies emphasizing the importance of university-community cooperation in strengthening

all stakeholders (Callahan & Martin, 2007; Carlson, 2001; Edens & Gilsinan, 2005; Gardner, 2011; Leege & Sweikar, 2019; Lessa et al. 2017; Nelson, 2006; Segedin, 2011).

Problem Statement and Sub-Problems of the Study

Based on the discussion of the relevant literature, the research problem is formulated as follows:

What is the contribution of the teaching and learning centers at Ivy League schools (Harvard, Yale, Princeton, Columbia, Brown, Dartmouth, Pennsylvania, and Cornell) to quality higher education?

The sub-problems of the research are:

1. How do Ivy League schools address academic staff on their web pages?

2. How do they address students on their web pages?

3. How do they address program development processes on their web pages?

4. How do they address administrative staff on their web pages?

5. How do they address processes and functions that support university-community cooperation on their web pages?

These sub-problems aim to explore how the teaching and learning centers at Harvard, Yale, Princeton, Columbia, Brown, Dartmouth, Pennsylvania, and Cornell are represented and their roles in enhancing higher education quality.

Method

This research employed the document analysis method within the scope of qualitative research. Document analysis involves examining written materials and visual data that contain information about the phenomena and events under investigation (Creswell, 2017; Yıldırım & Şimşek, 2006). This method was chosen because it allows the necessary data to be obtained without requiring observation and interviews, which aligns with the research problem.

A series of stages are followed when conducting document analysis. In this research, the following stages were adhered to in accordance with the relevant literature: a. accessing the documents; b. checking the originality; c. understanding the documents; and d. analyzing and using the data (Yıldırım & Şimşek, 2006). The data collection and coding process of the study was carried out in two stages. In the first stage, the researchers examined the contents of the universities' websites using the document analysis method, and a code table was created by reaching a consensus on potential categories and sub-themes. In this study, two expert opinions were consulted to ensure the reliability of the research in terms of the data obtained. Miles and Huberman's (1994) reliability formula was utilized. The formula is given below:

Reliability = [Agreement / (Agreement + Disagreement)] x 100

= [95/(95+11)] x100 = [95/106] x100 = [0.896]x100 = 89

As a result of Miles and Huberman's (1994) reliability formula, a figure of 89% was reached, and it can be said that the reliability of the result is high. In the second stage, the obtained data were reported.

Population and Sample

The research population subjected to document analysis consists of the web pages of learning and teaching centers at higher education institutions. To select a sample from this population, the criterion sampling technique, a type of purposive sampling method, was employed. Purposive sampling methods, which originate from the qualitative research tradition, enable the discovery, explanation, and in-depth study of phenomena and events in many cases (Patton, 1987, as cited in Yıldırım & Şimşek, 2006). The fundamental principle of the criterion sampling method is to study all situations that meet a set of criteria predetermined by the researcher (Yıldırım & Şimşek, 2006).

In this research, the sampling criterion is that the web pages to be examined belong to Ivy League institutions. Therefore, the sample is limited to the teaching and learning centers of Harvard, Yale, Princeton, Columbia, Brown, Dartmouth, Pennsylvania, and Cornell universities. Universities in Türkiye are excluded from the study group, as these institutions will be analyzed through their case studies and no comparative analysis will be conducted.

Validity and Reliability

Reliability in content analysis is ensured, especially through the category system and, accordingly, coding. In this context, the most important sign of reliability is the creation of the category system and the clear definition of each category, that is, the process of determining the rules. Some techniques are used to test reliability. Whether the validity condition is fulfilled in content analysis is answered through the question of whether there is a harmony between the problems/objectives and tools of the research (Gökçe, 2006). In this research, code-category-theme studies for validity and reliability were conducted by three different experts. For the internal and external validity of the research, the inquiries determined by Miles and Huberman (1994) were taken as the basis, and detailed information was provided about all stages of the research so that the research results could be generalized to similar environments. Accordingly, the code-category-theme table on which the experts' reached consensus is presented in Table 1.

Table 1. *Categories-Sub Themes-Code Table Defined in Line with The Purpose of The Research*

Purpose of the Study	Categories	Sub Themes	CODE SCHEDULE
Investigating the contribution of the teaching and learning centers of Ivy schools to quality higher education	TOOLS TO SUPPORT ACADEMICS	Courses	1-Ia
		Workshops	1-Ib
		Online resources	1-Ic
		Supporting learner-centered education	1-Id
		Promoting excellence in learning and teaching	1-Ie
		Supporting innovative approaches to learning and teaching	1-If
		Practices that consider global social responsibilities	1-Ig
		Leadership council/Mentoring	1-Ih
		Equality and Inclusion	1-Ii
		Research grants (Grants)	1-Ii
	TOOLS THAT SUPPORT THE STUDENT	Courses	2-IIa
		Workshops	2-IIb
		Online resources	2-IIc
		Equality and Inclusion	2-IId
		Pedagogical partnerships	2-IIe
		Showcasing student achievement / Featured students	2-IIf
	PROGRAM DEVELOPMENT TOOLS	Developing target-scope-operation-evaluation processes	3-IIIa
		Innovative teaching practices	3-IIIb
	VEHICLES SUPPORTING ADMINISTRATIVE STAFF	Courses	4-IVa
		Equality and Inclusion	4-IVb
	UNIVERSITY-COMMUNITY COOPERATION	Learning-Teaching Consortium	5-Va
		Interest Groups	5-Vb
		Equality and Inclusion	5-Vc
		Supports Project/Scholarship	5-Vd
		Online Trainings	5-Ve
		Global Responsibility	5-Vf

As can be seen in Table 1, each category of the research is divided into sub-themes. The sub-themes are common functions based on the content used on the web pages of each university. Accordingly, within the category of tools that support academics, there are common sub-themes of courses, workshops, online resources, supporting learner-centered education, supporting excellence in learning and teaching, supporting innovative approaches to learning and teaching, practices that consider global social responsibilities,

leadership council/mentorship, equity and inclusion, research grants. Within the student support tools category, the common sub-themes of courses, workshops, online resources, equity and inclusion, pedagogical partnerships, showcasing student achievement / outstanding students are included. Within the category of tools for program development, there are common sub-themes of developing goals-scope-scope-operation-assessment processes, innovative teaching practices. Within the category of tools to support administrative staff, there are common sub-themes of courses, equity and inclusion. Within the category of university-community collaboration, there are common sub-themes of learning-teaching consortium, interest groups, equity and inclusion, supporting project/scholarship, online training, global responsibility. Each sub-theme was categorized by the researchers with numeric and alphabetical codes.

Findings

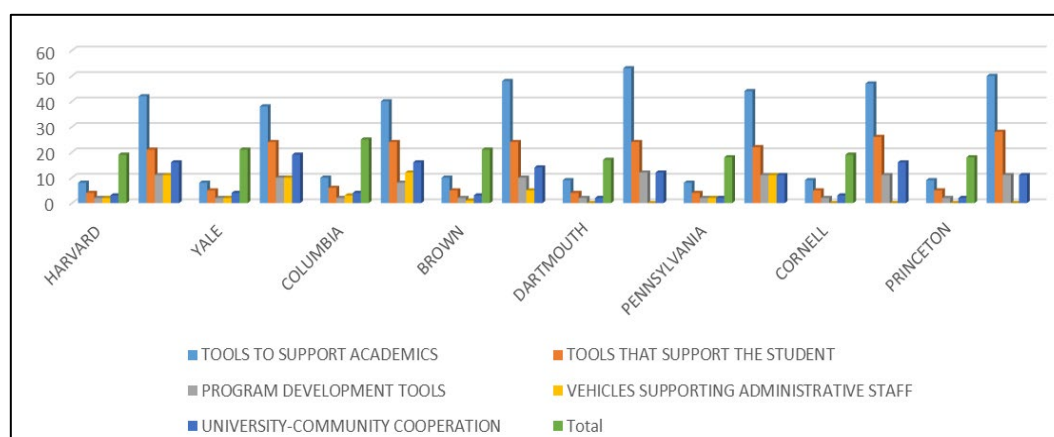In this section, the functions of TLCs will be analyzed on a university basis.

Figure 1. Distribution of functions of TLCs in Ivy Universities

The findings in Figure 1 show that the web pages of TLCs at Ivy schools primarily include tools supporting academics. This is followed by tools supporting students, university-community cooperation, tools supporting administrative staff, and program development tools.

Table 2. *Functional Distribution of TLCs by Universities*

	HARVARD	YALE	COLUMBIA	BROWN	DARTMOUTH	PENNSYLVANIA	CORNELL	PRINCETON
Tools to Support Academics	8	8	10	10	9	8	9	9
Tools That Support the Student	4	5	6	5	4	4	5	5
Program Development Tools	2	2	2	2	2	2	2	2
Vehicles Supporting Administrative Staff	2	2	3	1	0	2	0	0
University-Community Cooperation	3	4	4	3	2	2	3	2
Total (Number)	19	21	25	21	17	18	19	18

When the data in Table 2 are examined, the distribution of the functions of the TLCs' web pages by university shows that Columbia and Brown Universities stand out in terms of tools supporting academics in terms of resource allocation, Columbia University in terms of tools supporting students, all the universities are equal in terms of program development tools, Columbia University in terms of tools supporting administrative staff, and Yale and Columbia Universities in terms of university-community cooperation. In

terms of resources mobilized for education, Columbia University ranks the highest.

Findings Related to the 1st Sub-Problem

When Harvard University's web page was analyzed, the following findings were reached: The largest part of the scope consists of tools that support the academic. This is followed by tools supporting students. University-community collaboration, program development tools and tools supporting administrative staff are in the following order. Related findings are presented in Figure 2.
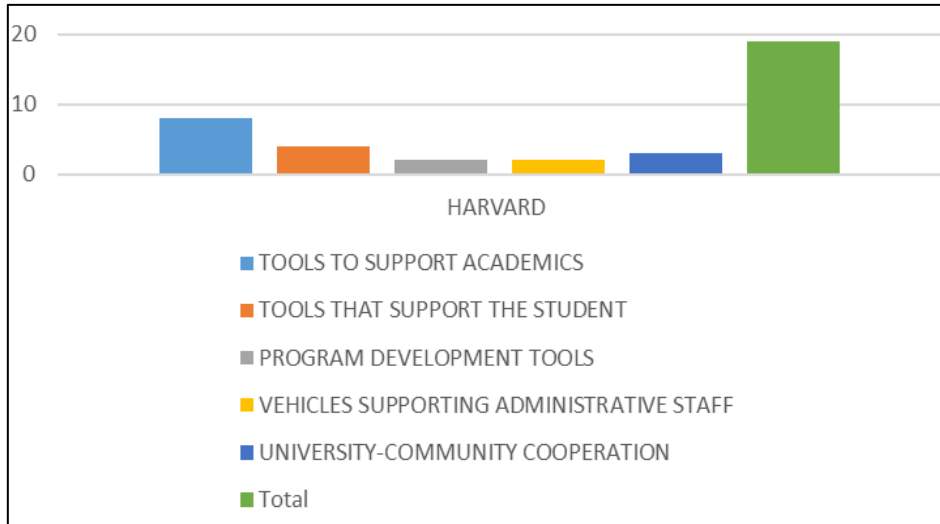
Figure 2. Functions of TLC according to Harvard University web page

As can be seen in Figure 2, Harvard University teaching-learning centers prioritize tools that support the academic.

Findings Related to the 2nd Sub-Problem

When Yale University's web page was analyzed, the following findings were reached: The largest part of the scope consists of tools that support the academic. This is followed by tools supporting students. Tools supporting university-community collaboration, program development tools and tools supporting administrative staff follow. Related findings are presented in Figure 3.
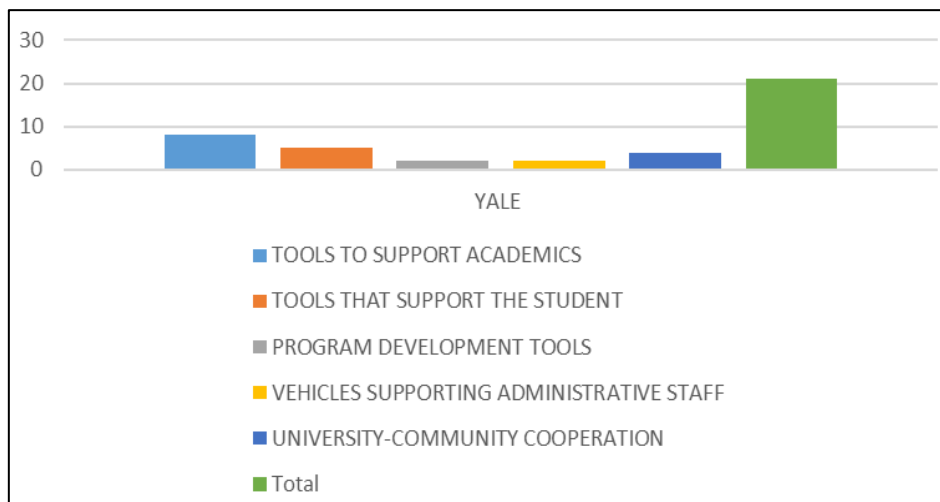

Figure 3. Functions of TLC according to Yale University web page

As can be seen in Figure 3, teaching-learning centers at Yale University prioritize tools that support academics. Tools supporting administrative staff and program development tools are seen to be more limited compared to other functions.

Findings Related to the 3rd Sub-Problem

When Columbia University's web page was analyzed, the following findings were reached: The largest part of the scope consists of tools that support the academic. This is followed by tools supporting students. University-community collaboration, tools supporting administrative staff, and program development tools follow. Related findings are presented in Figure 4.
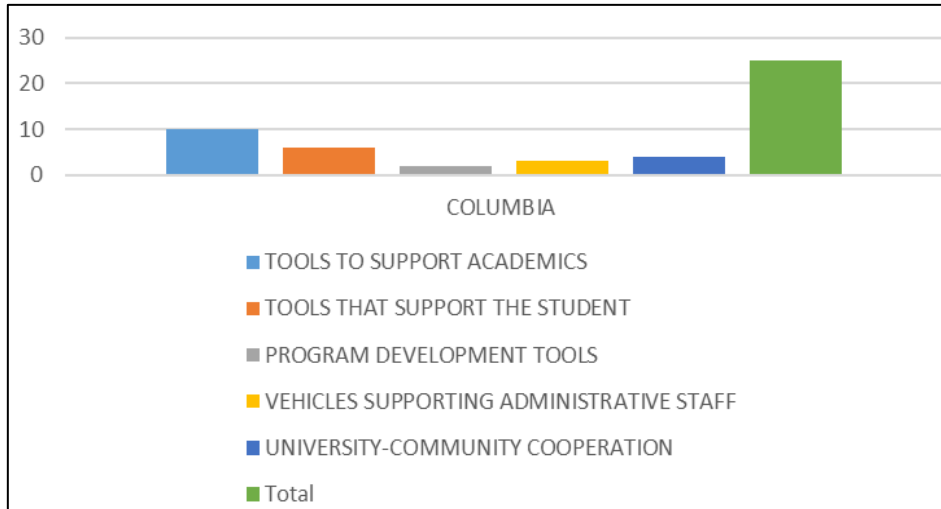

Figure 4. Functions of TLC according to Columbia University webpage

As can be seen in Figure 4, teaching-learning centers at Columbia University prioritize tools that support academics. Program development tools, on the other hand, seem to be more limited compared to other functions.

Findings Related to the 4th Sub-Problem

When Brown University's web page was analyzed, the following findings were reached: The largest part of the scope consists of tools that support the academic. This is followed by tools supporting students. University-community cooperation, program development tools, and tools supporting administrative staff follow. Related findings are presented in Figure 5.
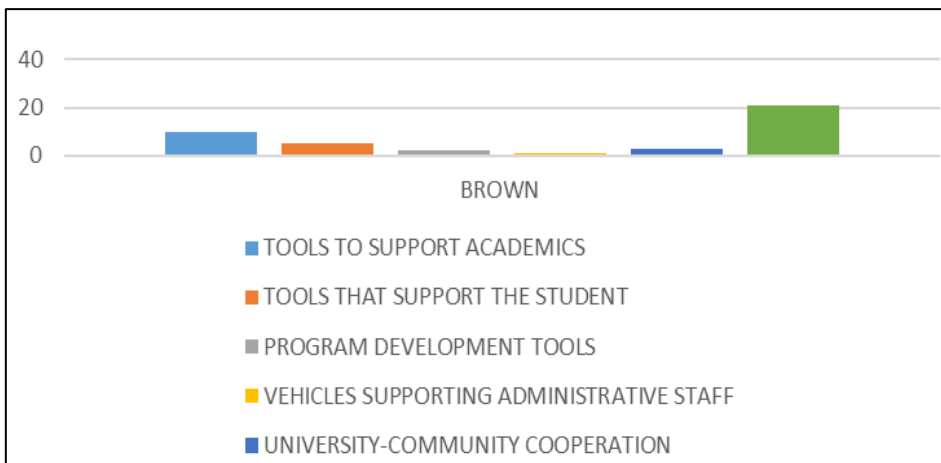

Figure 5. Functions of TLC according to Brown University webpage

As can be seen in Figure 5, Brown University teaching-learning centers prioritize tools that support academics. Tools that support administrative staff are seen to be more limited compared to other functions.

Findings Related to the 5th Sub-Problem

When the web page of Dartmouth University was analyzed, the following findings were reached; The

largest part of the scope consists of tools that support the academic. This is followed by tools that support the student. University-community cooperation and program development tools follow. Related findings are presented in Figure 6.
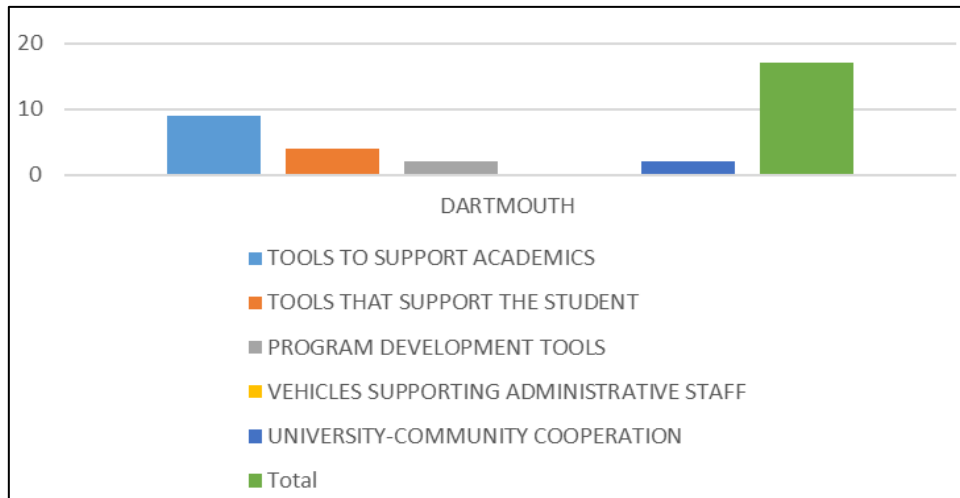

Figure 6. Functions of TLC according to Dartmouth University webpage

As can be seen in Figure 6, Dartmouth University teaching-learning centers prioritize tools that support academics. Tools that support administrative staff are more limited compared to other functions.

Findings Related to the 6th Sub-Problem

When the web page of the University of Pennsylvania was analyzed, the following findings were reached; The largest part of the scope consists of tools that support the academic. This is followed by tools supporting students. University-community collaboration, program development tools and tools supporting administrative staff are the next most common tools. Related findings are presented in Figure 7.
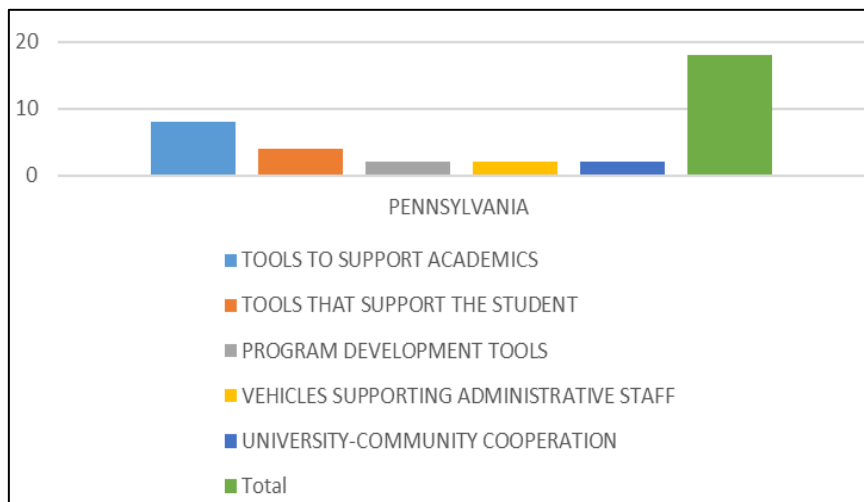

Figure 7. Functions of TLC according to the University of Pennsylvania web page

As can be seen in Figure 7, University of Pennsylvania teaching-learning centers prioritize tools that support academics. Program development tools, tools supporting administrative staff, and university-community collaboration are seen as more limited compared to other functions.

Findings Related to the 7th Sub-Problem

When Cornell University's web page was analyzed, the following findings were reached: The largest part of the scope consists of tools that support the academic. This is followed by tools that support the student. University-community collaboration and program development tools are also included. Related findings are presented in Figure 8.
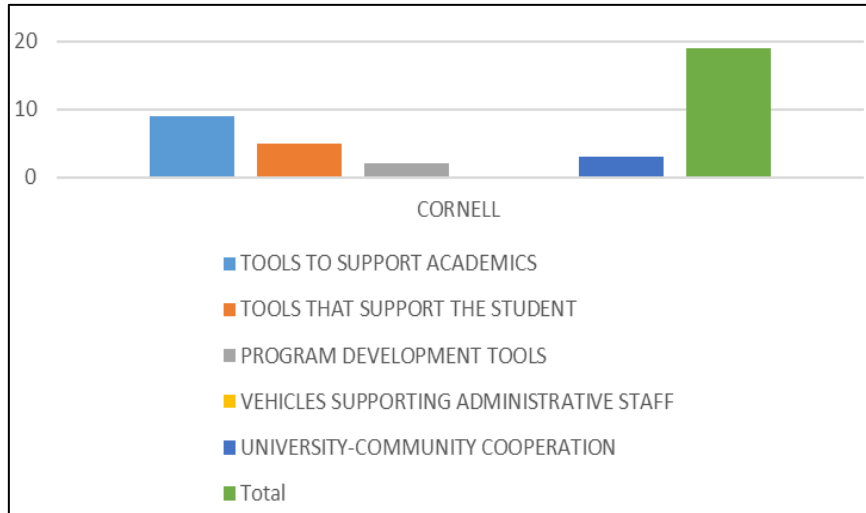

Figure 8. Functions of TLC according to Cornell University web page

As can be seen in Figure 8, Cornell University's teaching-learning centers prioritize tools that support academics. Tools that support administrative staff are more limited than other functions.

Findings Related to the 8th Sub-Problem

When Princeton University's web page was analyzed, the following findings were reached: The largest part of the scope consists of tools that support the academic. This is followed by tools that support students. University-community collaboration and program development tools follow. Related findings are presented in Figure 9.
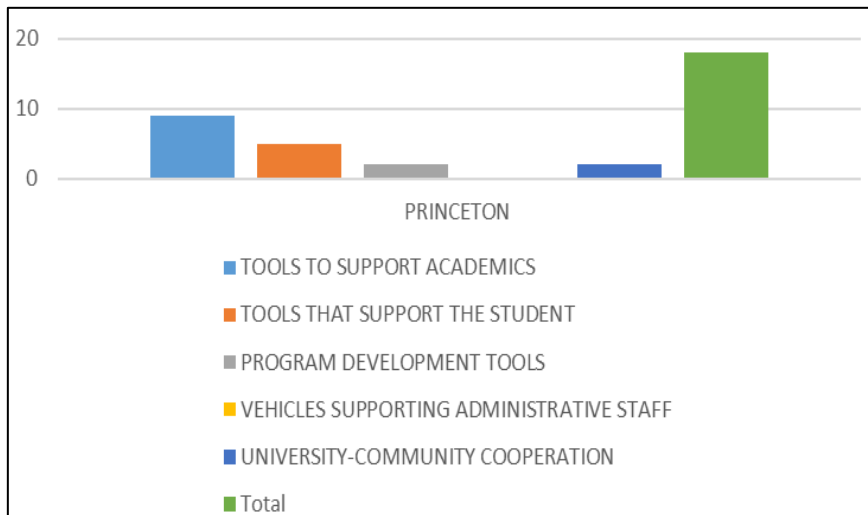

Figure 9. Functions of TLC according to Princeton University web page

As can be seen in Figure 9, Princeton University's teaching-learning centers prioritize tools that support academics. The tools that support administrative staff are more limited compared to other functions.

Conclusion and Discussion

According to the results of this study, it was seen that the activities of teaching and learning centers in Ivy League universities can be carried out by the simultaneous work of more than one unit. For example, Harvard University has multiple units that support faculty and students in instructional design, educational technologies, and learning strategies. The Derek Bok Center is a unit affiliated with the Faculty of Arts and Sciences that conducts experimental studies on educational sciences and provides consultancy within the university upon request. VPAL, on the other hand, is a structure that addresses the whole university and works as the "learning office" of the institution. Similar structures were also found in other Ivy schools. However, the focus of this research is to determine the functions of all these web pages to support quality higher education. Therefore, the following section will first discuss the results in this context (OpenAI, 2021; Harvard University, 2024a; Harvard University, 2024b; Harvard University, 2024c; Harvard University, 2024d; Dartmouth University, 2024; Yale University, 2024; Columbia University, 2024; Brown University, 2024; Pennsylvania University, 2024; Cornell University, 2024; Princeton University, 2024).

The findings of this study reveal that the activities of teaching and learning centers (TLCs) in Ivy League universities are often supported by multiple specialized units working simultaneously. For instance, Harvard University has several units that assist faculty and students with instructional design, educational technologies, and learning strategies. The Derek Bok Center, affiliated with the Faculty of Arts and Sciences, conducts experimental studies in educational sciences and offers consultation services within the university upon request. Additionally, the Vice Provost for Advances in Learning (VPAL) serves as the university's "learning office," addressing instructional needs across the entire institution. Similar structures were observed in other Ivy League universities, reinforcing the idea that these centers play a crucial role in supporting quality higher education.

The primary focus of this research was to analyze the functions of these TLCs as reflected on their respective web pages, which offer resources, programs, and support services aimed at enhancing teaching and learning. For example, Harvard University's Center for Teaching and Learning provides faculty with resources on teaching methods, educational technologies, student assessments, and course design. It also promotes pedagogical research, encourages innovative educational projects, and fosters collaboration among faculty members. The availability of workshops, events, and counseling services on their platform further supports lifelong learning and offers opportunities for continuous improvement in teaching practices.

Similarly, Yale University's Center for Teaching and Learning offers resources on lesson planning, assessment methods, interactive learning tools, and professional development opportunities, including seminars and workshops. Columbia University's TLC focuses on effective teaching strategies, student engagement, and the integration of educational technology, providing resources for lesson planning, student assessments, and classroom management. Brown University's Center for Teaching and Learning emphasizes instructional innovation, active learning, and online education, alongside offering academic support services for students. Dartmouth College, Princeton University, the University of Pennsylvania, and Cornell University also have well-developed TLCs that provide similar resources and support for both faculty and students, fostering an environment that prioritizes teaching excellence and innovation.

Ensuring quality education at the higher education level requires more than standardized curricula and core programs. It necessitates the empowerment of faculty, students, and administrative staff, the continuous improvement of programs, and the university's engagement with society and industry. All these functions should be managed through platforms that extend beyond the curriculum, such as TLCs, which are often both physical and virtual entities. These centers are particularly well-developed in Ivy League institutions, which are widely regarded as some of the most prestigious universities in the world. As noted by Miller et al. (2015) Ivy League schools represent the pinnacle of U.S. higher education, characterized by their selective admissions and long-standing reputations for academic excellence. Supporting educational activities with contemporary educational theories is often seen as an additional burden for educational institutions. This is because it challenges the traditional didactic methods that dominate many educational systems. For instance, learner-

centered education, which is now considered the ideal approach even at the higher education level, requires specialized expertise in goal setting, curriculum design, and the evaluation of educational outcomes. To effectively manage the vision for learning and teaching, schools need dedicated teams and interactive platforms that focus on these core areas of work. The discipline of curriculum development plays a crucial role here, as it enables academic interaction with all stakeholders—including faculty, administrators, and students—through an online platform, ensuring that educational practices are continuously refined and improved (Cullen et al., 2023; Dupper, 2002; Ercan, 2021, Gagné et al., 1992; Jarolmann, 2017; Kavgaoğlu, 2024; Kirkpatrick & Kirkpatrick, 2006; Merriam & Bierema, 2014).

Recommendations

Policymakers and Decision Makers

Educational activities bear the ethical responsibility of equipping individuals with the necessary tools to adapt to society while simultaneously fostering their unique potential. To facilitate social change, education must go beyond rigid curricula. Policymakers should focus on reforms that support holistic development in education. Universities are central to these efforts, particularly in socializing individuals, ensuring societal continuity, and cultivating future generations committed to social change. Recent reforms in higher education worldwide, especially in developing countries, have emphasized the creation of new institutions, restructured financial and management systems, and the implementation of evaluation, accreditation mechanisms, and curriculum reforms. Decision-makers must ensure that these reforms are not just implemented but are also effective in achieving their goals by integrating support mechanisms, such as Teaching and Learning Centers (TLCs), into the educational framework.

Practitioners

For practitioners, particularly those in higher education, the emphasis should be on creating environments that go beyond traditional curriculum confines. TLCs play a vital role in enhancing educational activities by offering support to academic staff, students, and administrative personnel. These centers also contribute to program development and foster effective university-community cooperation, thereby enriching the overall educational experience. Practitioners should actively engage with these centers, leveraging them to improve teaching practices, enhance student learning outcomes, and bridge the gap between universities and the broader community.

Further Research

The research under discussion provides valuable insights by examining practices in some of the world's leading universities. Future research should continue to explore the impact of TLCs and other innovative educational structures on the quality of higher education. Comparative studies across different countries, especially in developing regions, would be beneficial in understanding how various reforms and support mechanisms can be tailored to specific contexts. Additionally, further research should investigate the long-term effects of these reforms on both individuals and society, particularly in terms of social change and the cultivation of socially committed generations.

Declarations

Limitations: The study is limited to the analysis of the content on the websites of the Ivy Schools (Harvard, Yale, Princeton, Columbia, Brown, Dartmouth, Pennsylvania, and Cornell) between July 2, 2023, and March 2, 2024.

References

Aydın, İ. 2021. *Kamu ve özel sektörde hizmetiçi eğitim.* PEGEM.

Banks, J. (1992). Multicultural education: Freedom shake. *Educational Leadership*, 49(4), 32-37.

Banks, J. (1997). *Educating citizens in a multicultural society.* Teachers College Press.

Banks, J. (1999). *Introduction to multicultural education* (2nd ed.). Allyn & Bacon.

Baykara-Özaydınlık, K. (2019). Kapsayıcı eğitime giriş. In P. O. Taneri (Ed.), *Kuramdan uygulamaya kapsayıcı eğitim* (pp. 45-68). PEGEM Publishing.

Bendik F., Onsrud S. V., Rinholm H., & Lewis J. (2023) Who takes part in participation? Challenges to empower student voice in music teacher education. *Music Education Research, 25*(3), 253-268. https://doi.org/10.1080/14613808.2023.2210159

Brown University. (2024). *The Harriet W. Sheridan Center for Teaching and Learning.* https://www.brown.edu/sheridan/sheridan-center

Bulut, M. A., Göçen, A., & Konuk, H. (2023). *Yükseköğretim kurumlarında öğrenme ve öğretme merkezleri* (Politika Notu: 2023/49). İlim Kültür Eğitim Vakfı.

Callahan, J., & Martin, D. (2007). The spectrum of school-university partnerships: A typology of organizational learning systems. *Teaching and Teacher Education*, 23(2), 136-145. https://doi.org/10.1016/j.tate.2006.04.038

Carlson, P. (2001). A grassroots approach to educational partnerships. *Technological Horizons in Education [T H E] Journal, 29*(3), 83-88.

Chen, J., Du, X., Jiang, D., Guerra, A. O. P. D. C., & Nørgaard, B. (2024). A review study with a systematic approach: Pedagogical development for educators in higher engineering education. *European Journal of Engineering Education,* 49(2), 299-329. https://doi.org/10.1080/03043797.2023.2290032

Columbia University. (2024). *Center for Teaching and Learning.* https://ctl.columbia.edu/

Cornell University. (2024). *Center for Teaching Innovation.* https://teaching.cornell.edu/ (Accessed on 8.2.2024).

Creswell, J. W. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.

Cullen, R., Harris, M., & Hill, R. R. (2012). *The learner-centered curriculum: Design and implementation.* Jossey-Bass.

Dartmouth College. (2024). *Dartmouth Center for the Advancement of Learning.* https://dcal.dartmouth.edu/

Demirel, Ö. 2023. *Eğitimde program geliştirme: Kuramdan uygulamaya.* Pegem.

Dupper, R. P. (2022). *Okul sosyal hizmeti* (Çev. Y. Özkan & E. Gökçearslan). Pegem.

Edens, R., & Gilsinan, J. (2005). Rethinking school partnerships. *Education and Urban Society, 37*(2), 123-138. https://doi.org/10.1177/0013124504270654

Education Reform Initiative (ERG). (2016). *Situation analysis of inclusive education in secondary education in Turkey.* İmak Ofset.

Elçi, A., & İşeri, E. (2022). Learning and teaching centers for instructor professional development in Turkey: Management and organizational structure. *Journal of Higher Education, 12*(2), 280-295. https://dx.doi.org/10.2399/yod.21.734565

Ercan, F. Z. (2021). Eğitim ve sosyal politika. In Başer, D. (Eds.) *Sosyal politika ve sosyal hizmet* (pp.119-151). Nobel.

Frantz, A. C., Beebe, S. A., Horvath, V. S., Canales, J., & Swee, D. E. (2004). The roles of teaching and learning centers. *To Improve the Academy, 23*, 72-90. https://doi.org/10.1002/j.2334-4822.2004.tb00427.x

Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of instructional design* (4th ed.). Harcourt Brace Jovanovich.

Gardner, D. (2011). Characteristic collaborative processes in school-university partnerships. *Planning and Changing, 42*(1), 63-86.

Gill, K., Sharma, R., & Gupta, R. (2017). Empowering visually impaired students through E-learning at higher education: problems and solutions. *IOSR Journal of Humanities and Social Science (IOSR-JHSS),* 22(8), 27-35.

Gökçe, O. (2006). *Content analysis: Theoretical and practical information.* Siyasal Kitabevi.

Gollnick, D. M., & Chin, P. C. (1998). *Multicultural education in a pluralistic society* (5th ed.).

Harvard University. (2024a). *Harvard Initiative for Learning and Teaching.* https://hilt.harvard.edu/

Harvard University. (2024b). *Teaching and Learning.* https://bokcenter.harvard.edu/

Harvard University. (2024c). *Global Health Education and Learning Incubator at Harvard University.* https://gheli.harvard.edu/

Harvard University. (2024d). *Slate: Browse the HKS Case Collection.* https://www.hks.harvard.edu/more/about-us/leadership-administration/academic-deans-office/slate

Ifenthaler, D., & Şahin, M. (2023). Empowering higher education students to monitor their learning progress: Opportunities of computerized classification testing. *Interactive Technologies and Smart Education, 20*(3), 350-366. https://doi.org/10.1108/ITSE-11-2022-0150

Jarolmann, J. (2017). *Okul sosyal hizmeti: Bir uygulama kılavuzu* (Çev. Y. Özkan). Nika.Ma, Y., & Bennett, D. (2021). The relationship between higher education students' perceived employability, academic engagement, and stress among students in China. *Education + Training, 63*(5), 744–762. https://doi.org/10.1108/ET-07-2020-0219

Karip, E. (Ed.). (2017). *Introduction to education.* Pegem.

Kavgaoğlu, D. (2024). Eğitim alanındaki sorunlar. In *Sosyal sorunlar ve sosyal hizmet* (pp. 2023-227). Nobel.

Kavgaoğlu, D., & Fer, S. (2020). Investigation of the effectiveness of implicit programs, official program and extracurricular factors in acquiring values. *Istanbul Gelisim University Journal of Social Sciences, 7*(2), 404–420. https://doi.org/10.17336/igusbd.450338

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler.

Küçükahmet, L. (1987). *Study habits and attitudes of students: A research on university students.* Ankara University Faculty of Educational Sciences Publications.

Leege, D., & Sweikar, M. (2019). From associational value to complementary synergy: Eighteen years of NGO-university partnership. *Praxis: An Interdisciplinary Journal of Faith and Justice, 2*(1), 36-58. https://doi.org/10.5840/praxis20202109

Lessa, B. de S., Aguiar, I. C., Ferreira, R. C., & da Silva Filho, J. C. L. (2017). The benefits of cooperation between universities, NGOs, and communities: The case of IPREDE in Ceará. *Revista De Ciências Da Administração, 19*(49), 74-85. https://doi.org/10.5007/2175-8077.2017v19n49p74

Lopez, M. C. (2008). School management in a multicultural context. *International Journal of Leadership in Education, 11*(1), 63-82.

Martínez, V., Pegalajar Palomino, E., M. d. C., & Burgos-Garcia, A. (2023). Active methodologies and curricular sustainability in teacher training. *International Journal of Sustainability in Higher Education, 24*(6), 1364-1380. https://doi.org/10.1108/IJSHE-05-2022-0168

Martínez-Pérez, S., Cabero-Almenara, J., Barroso-Osuna, J., & Palacios-Rodríguez, A. (2022, June). T-MOOC for initial teacher training in digital competences: Technology and educational innovation. In *Frontiers in Education* (Vol. 7, pp. 846-998). Frontiers Media SA.

Merriam, S. B., & Bierema, L. L. (2014). *Adult learning: Linking theory and practice.* Jossey-Bass.

Merrill.Gormaz-Lobos, D., Galarce-Miranda, C., Hortsch, H., & Vargas-Almonacid, C. (2021). Teacher training's needs in university context: A case study of a Chilean university of applied sciences. *International Journal of Emerging Technologies in Learning, 16*(09), 119-132. https://doi.org/10.3991/ijet.v16i09.21389

Miles, M. B. (1994). *Qualitative data analysis: An expanded sourcebook.* Thousand Oaks.

Miller, D., Xu, X., & Mehrotra, V. (2015). When is human capital a valuable resource? The performance effects of Ivy League selection among celebrated CEOs. *Strategic Management Journal, 36*(6), 930-944.

Nelson, A. (2006). *Characteristics of a school-university partnership: A grounded theory approach* [Unpublished doctorate thesis]. Illinois State University.

OpenAI. (2021). ChatGPT (Version 3.5) [Software]. OpenAI. https://openai.com/

Ornstein, A. C., Francis, P., & Hunkins, F. (2012). *Curriculum: Foundations, principles, and issues* (6th ed.). Pearson.

Özçelik, D. A. (1998). *Education programs and instruction: General teaching method.* ÖSYM Publications.

Pearlman, B. (2010). Designing new learning environments to support 21st-century skills. In J. Bellanca & R. Brandt (Eds.), *21st century skills: Rethinking how students learn* (pp. 117-148). Solution Tree Press.

Peters, M., Guitert-Catasús, M., & Romero, M. (2022). Student learning ecologies in online higher education: A model to support connected learning across contexts. *Higher Education Research & Development, 41*(7), 2307-2323. https://doi.org/10.1080/07294360.2021.2014408

Princeton University. (2024). *The McGraw Center for Teaching and Learning.* https://mcgraw.princeton.edu/

Schumann, D. W., Peters, J., & Olsen, T. (2013). Co-creating value in teaching and learning centers. *New Directions for Teaching and Learning, 2013*(133), 21-32. https://doi.org/10.1002/tl.20040

Schwartz, B. M., & Haynie, A. (2013). Faculty development centers and the role of SoTL. New *Directions for Teaching and Learning, 2013*(136), 101-111. https://doi.org/10.1002/tl.20048

Segedin, L. (2011). The role of teacher empowerment and teacher accountability in school-university partnerships and action research.

Brock Education Journal, 20(2), 43-64 https://doi.org/10.26522/brocked.v20i2.169

Shephard, K., Brown, K., Connelly, S., et al. (2017). Empowering students in higher education to teach and learn. *New Zealand Journal of Educational Studies, 52*(1), 41-55. https://doi.org/10.1007/s40841-016-0072-x

Sorcinelli, M. D. (2002). Ten principles of good practice in creating and sustaining teaching and learning centers. In K. J. Gillespie (Ed.), *A guide to faculty development: Practical advice, examples, and resources* (pp. 9-23). Anker Publishing.

Tondeur, J., Howard, S., Van Zanten, M., et al. (2023). The HeDiCom framework: Higher education teachers' digital competencies for the future. *Education Tech Research Development, 71*(1), 33-53. https://doi.org/10.1007/s11423-023-10193-5

UNESCO. (2005). *Guidelines for inclusion: Ensuring access to education for all.* UNESCO.

University of Pennsylvania. (2024). *Center for Excellence in Teaching, Learning and Innovation*. https://ctl.upenn.edu/

UNTR. (2023). *United Nations Turkey: Sustainable Development Goals*. https://turkiye.un.org/tr/sdgs

Wrean, C., & Larsen, R. P. (1941). *Studying effectively.* Stanford University Press.

Yale University, Poorvu Center for Teaching and Learning. (2024). https://poorvucenter.yale.edu/

Yıldırım, A., & Simsek, H. (2006). *Qualitative research methods in social sciences* (6th ed.). Seçkin.

Yilmaz, E. (2020). *What does the Ivy League do in the "New Normal?".* https://emreyz.com/ivy-league-rapor/

Zhang, L. (2012). *Does quality pay? Benefits of attending a high-cost, prestigious college.* Wiley.