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WHEN 'ONLINE' LEADS THE WAY IN ACADEMIC DISCOURSE: A CORPUS-BASED STUDY OF COLLOCATIONS

This article examines academic discourse on online learning, particularly focusing on collocations with the lemma online within a corpus of 100 articles from the Web of Science database. It highlights the significant growth of academic discourse on online learning, particularly after the COVID-19 pandemic, and explores key themes such as collaborative learning, and the role of technology in education. Using corpus linguistics and Critical Discourse Analysis (CDA), the study provides a data-driven analysis of how online learning is represented in academic texts. Using the Sketch Engine software, the most frequent collocations with the lemma online, which are used to describe online learning and its various components in academic discourse, have been identified.

Analyzing patterns involving nouns modified by "online", the study identifies several thematic groups that represent these collocations. The first group highlights different types of online learning and teaching formats, including collocations such as online learning, online courses, online education, and online sessions. The second group centers around the learning environment and context, featuring collocations like online learning environment, online learning system, and online learning model. A third group focuses on participants, such as online community, online learners, and online teachers. The fourth thematic group explores experiences and engagement, with collocations like online learning satisfaction, online course engagement, and online discussions. The fifth group deals with assessment and tools, including collocations like online survey, online assessment, and online tools. Additionally, there are collocations related to time, such as students' daily online learning time, as well as perceptions of online learning, with phrases like online learning perceptions. Lastly, the article addresses support and resources, represented by collocations like online learning resources and online services. These thematic categories provide a comprehensive view of the key aspects of online learning and teaching as reflected in the collocations of the corpus.

Key words: *academic discourse, online, online learning, corpus linguistics, collocation.*

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КОЛИ 'ONLINE' ВИЗНАЧАЄ НАПРЯМОК В АКАДЕМІЧНОМУ ДИСКУРСІ: КОРПУСНЕ ДОСЛІДЖЕННЯ КОЛОКАЦІЙ

Ця стаття досліджує академічний дискурс щодо онлайн-навчання, зокрема зосереджуючись на колокаціях з лемою "online" у корпусі з 100 статей з бази даних Web of Science. Вона підкреслює значне зростання академічного дискурсу про онлайн-навчання, особливо після пандемії COVID-19, та досліджує ключові теми, такі

як колаборативне навчання та роль технологій у освіті. Використовуючи корпусну лінгвістику та Критичний аналіз дискурсу (CDA), дослідження надає аналітичний підхід на основі даних щодо того, як онлайн-навчання представлено в академічних текстах. За допомогою програмного забезпечення *Sketch engine* виокремлено найчастотніші колокації з лемою *online*, що використовується для опису онлайн-навчання та його різних складових в академічному дискурсі.

Аналізуючи структури, що включають словосполучення «*online* + іменник», дослідження визначає кілька тематичних груп, які представляють ці колокації. Перша група виділяє різні типи *online*-навчання та форматів викладання, зокрема колокації такі як *online learning*, *online courses*, *online education* та *online sessions*. Друга група зосереджена на навчальному середовищі та контексті, з колокаціями, такими як *online learning environment*, *online learning system* та *online learning model*. Третя група орієнтована на учасників, таких як *online community*, *online learners* та *online teachers*. Четверта тематична група досліджує досвід і залучення, з колокаціями, такими як *online learning satisfaction*, *online course engagement* та *online discussions*. П'ята група стосується оцінювання та інструментів, зокрема колокаціями, такими як *online survey*, *online assessment* та *online tools*. Крім того, є колокації, що стосуються часу, такі як *students' daily online learning time*, а також сприйняття *online learning*, з фразами, такими як *online learning perceptions*. Нарешті, стаття розглядає підтримку та ресурси, представлені колокаціями, такими як *online learning resources* та *online services*. Ці тематичні категорії надають всебічний погляд на основні аспекти *online learning* та викладання, що відображаються в колокаціях корпусу.

Ключові слова: академічний дискурс, онлайн, онлайн-навчання, корпусна лінгвістика, колокація.

Introduction. Academic discourse encompasses a broad range of social and communicative activities within education and scientific research. Hyland (Hyland, 2011: 172) defines academic discourse as a critical framework that shapes our understanding of the world, arguing that no scientific text can be entirely impartial. The arguments in scientific texts are influenced by the author's perspective, and scientific persuasion involves using disciplinary tools to anticipate and counter potential objections. Studying academic discourse thus involves analyzing the rhetorical practices in various scientific disciplines and their manifestation in genres like research articles, reports, and presentations.

In the first two decades of the 21st century, the study of academic discourse has seen substantial growth and evolution, marking a period of swift advancement in both theoretical and applied research (Труба, 2021). This era has established academic discourse as a central focus within the field of discourse analysis, reflecting a growing appreciation of its unique role in scholarly communication and education. Two main trends have emerged: 1) the recognition of academic discourse as a foundational element in discourse studies, and 2) an increase in contrastive studies that compare academic discourse across linguistic and cultural boundaries.

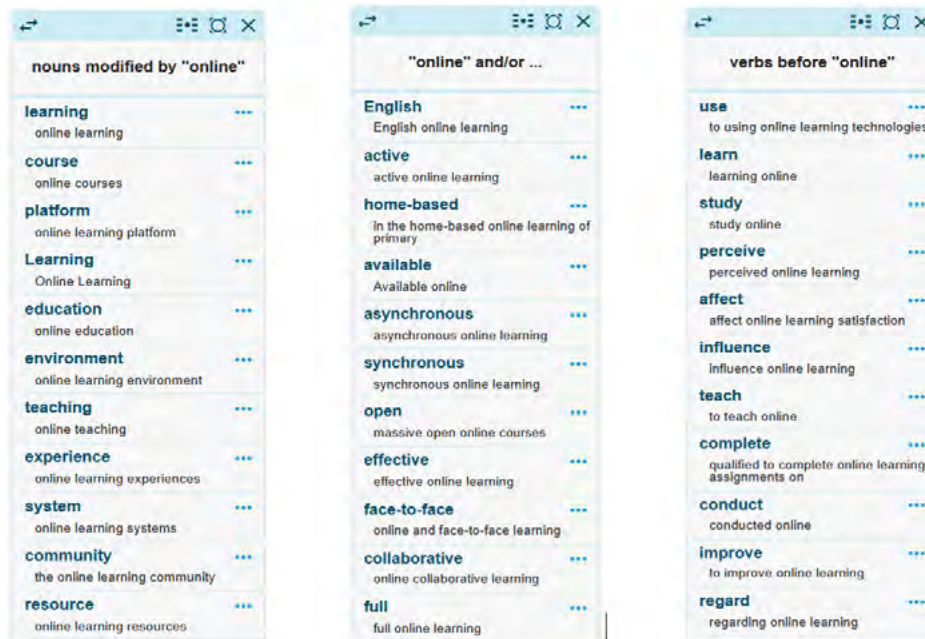
Academic discourse has become a central focus of discourse analysis, garnering significant attention from scholars seeking to understand how knowledge is conveyed in educational and research contexts (Лівіцька, 2011; Маслова, 2012). This development highlights the importance of academic discourse not only as a vehicle for information but as a structured, culturally rich form of communication with its own conventions and rhetorical practices. By examining the structure, language choices, and functions

of academic discourse, researchers gain insight into the values and priorities of academic communities worldwide.

The academic discourse of online learning has gained significant importance, especially in the wake of the COVID-19 pandemic, which forced a rapid shift to online education. This transition has sparked numerous studies exploring the implications of online learning in various academic contexts. Thus, **the aim** of this article is to analyze collocations with the lemma *online* within academic discourse. The **material** of the study is a corpus compiled from 100 articles published in the Web of Science database, all focused on online learning.

Theoretical background. Studying online learning in academic discourse requires a clear definition of the concept itself. Online learning, often referred to as e-learning, is a mode of education where students and instructors are separated by time or space, and learning takes place through digital platforms. It involves a wide range of participants, including students, teachers, administrators, and instructional designers, all engaging in the process through online tools and resources (Palvia et al., 2018). This mode of learning has grown significantly in recent years, particularly following the shift prompted by the COVID-19 pandemic (Wut, 2021), which pushed educational institutions worldwide to adopt online platforms to ensure continuity in teaching and learning.

One key aspect of online learning is the importance of social presence, which refers to the ability of students to project themselves socially and emotionally within an online environment. According to Wang and Kang (2006), engaging distributed students in online courses requires careful attention to critical factors in each domain to foster cognitive, emotional, and social presence. These factors are essential for



Pic. 3. The most representative collocations with the lemma *online*

The largest groups of collocations in the corpus are represented by the following patterns: 1) nouns modified by *online*, 2) combinations of *online* and *and/or*, 3) verbs preceding *online* (see Pic. 3). We will concentrate on the first pattern in the study.

Critical Discourse Analysis and contextual interpretation have enabled the singling out of categories

of online learning-related terms in the corpus for the pattern nouns modified by *online* (see Table 1). The categories identified through this approach can be grouped into several key areas that highlight various aspects of the online education experience. These include the types of online learning/teaching formats, the learning environment/con-

Table 1

Thematic presentation of collocations with the lemma *online*

Categories	Collocations with <i>online</i>	Fr.	Text examples
Types of Online Learning/ Teaching Formats	1) <i>online learning</i>	5486	<i>By bringing these frameworks together, we aim at introducing online learning for supporting a reflective practice, leading to the development of students' employability competences.</i> <i>Our analysis of the relationship between students' behavioral engagement in online experimental courses and their learning ineffectiveness provides strong evidence for our schools and the relevant education authorities to improve online education at the course level.</i> <i>It seems that the participants of this study comparably assigned importance to online instruction regardless of time.</i>
	2) <i>online courses</i>	488	
	3) <i>online learning platform</i>	399	
	4) <i>online education</i>	377	
	5) <i>online teaching</i>	263	
	6) <i>online classes</i>	76	
	7) <i>online learning program</i>	46	
	8) <i>online instruction</i>	30	
	9) <i>online sessions</i>	29	
Learning Environment/ Context	1) <i>online learning environment</i>	313	<i>University English teachers need to choose and use the functions and contents provided by the online learning platform in the process of online learning, not only to give full play to the value of the online learning environment, but also to curb the disadvantages of the online learning environment.</i> <i>The effect of technostress on the teachers' willingness to use online teaching modes and the moderating role of job insecurity during COVID-19 pandemic in Pakistan.</i>
	2) <i>online learning system</i>	46	
	3) <i>online learning process</i>	41	
	4) <i>online learning context</i>	40	
	5) <i>online learning model</i>	29	
	6) <i>online learning mode</i>		
Participants	1) <i>online community</i>	119	<i>At the same time, middle school students prefer to interact with online teachers on the platform to obtain the learning support from online teachers.</i> <i>With evidence that emotions exist in all aspects of an online community of inquiry, consideration of the appropriate response is next. How does this impact design and organization, facilitation, and direct instruction?</i>
	2) <i>online learners</i>	84	
	3) <i>online teachers</i>	28	

Table 1 (continuance)

Experiences and Engagement	1) <i>online learning experiences</i> 2) <i>online learning satisfaction</i> 3) <i>online learning behaviors</i> 4) <i>online course engagement</i> 5) <i>online interaction</i> 6) <i>online course performance</i> 7) <i>online discussions</i>	166 73 72 67 34 31 27	<i>Third, we checked the expected relations between personal characteristics and online learning experiences (H1-H5) by means of multiple regression analyses for each dimension of online learning perception, for online course engagement, and for online course performance. Therefore, it is feasible to conclude that students' online engagement may be greatly enhanced when the institution offers them the appropriate support. During the process of GT, the researcher required to remain open-minded and learning, conduct a careful evaluation of observations, the obstacles and the effects of online interaction between teachers and students.</i>
Assessment and Tools	1) <i>online survey</i> 2) <i>online questionnaire</i> 3) <i>online self-efficacy</i> 4) <i>online tools</i> 5) <i>online learning activities</i> 6) <i>online assessment</i>	60 57 56 56 56 28	<i>To measure the participants' level of dissatisfaction with online coursework assessments during the Covid-19 pandemic, an online coursework measure was created by the researchers. In contrast, individuals with low online learning self-efficacy cannot overcome any challenges they may face if the work is complex, and they will not persevere in their efforts when suffering setbacks.</i>
Time	1) <i>students' daily online learning time</i>	35	<i>Stress was associated with grade, relationship with father, relationship between parents, students' daily online learning time, and students' satisfaction with online learning effects.</i>
Perceptions	1) <i>online learning perceptions</i>	33	<i>Online learning perceptions encompass five factors: adaptability, accessibility, interactivity, knowledge acquisition, and ease of loading, which enable the students to achieve LO.</i>
Support and Resources	1) <i>online learning resources</i> 2) <i>online services</i>	109 43	<i>In college English teaching, online resources can meet students' self-study needs and show them a variety of English knowledge. Teachers should reasonably design teaching according to the characteristics of disciplines, and give students sufficient participation to conduct online self-study and online training.</i>

text, participants in the learning process, experiences and engagement, assessment and tools, time and perceptions, and support and resources. Together, these categories offer a comprehensive understanding of how online learning is framed and discussed in academic discourse.

The analysis of collocations in the corpus in the context of online learning reveals several key categories that reflect different aspects of the experience, offering a more nuanced understanding of how online education is structured and perceived. Descriptive collocations provide a clear and detailed picture of the components and formats of online education, offering foundational insights into the field. Collocations like *online learning*, *online courses*, *online education*, and *online sessions* describe the core formats of digital learning and teaching. These collocations not only capture the methods of delivery but also hint at the flexibility and accessibility that online learning provides. Additionally, collocations such as *online learning environment*, *online learning system*, and *online learning model* describe the infrastructure and design of online education. These collocations convey the

different systems and structures that support digital learning, providing a context in which the learners and instructors interact.

In contrast, evaluative collocations focus on the quality, effectiveness, and perceptions of the online learning experience. Phrases like *online learning satisfaction*, *online course engagement*, and *online discussions* reflect the ways in which learners engage with the content and the value they derive from the learning experience. These collocations capture the dynamic nature of student engagement and the social aspects of online learning, which may differ significantly from traditional classroom interactions. Similarly, the collocation *perceptions of online learning* delves deeper into how both learners and educators view the effectiveness, benefits, and challenges of online education. This evaluative aspect helps to assess the impact of digital learning environments on student outcomes, motivation, and overall satisfaction in the corpus.

Action-oriented collocations, on the other hand, emphasize the activities, interactions, and processes that take place within the online learning space. Col-

locations such as *online learning engagement*, *online course participation*, and *students' daily online learning time* highlight the proactive role that students must take in their education. These collocations underscore the actions and behaviors required for successful learning, including active participation, time management, and self-directed study. In particular, *students' daily online learning time* draws attention to the commitment and discipline needed to navigate the online learning experience, which often requires a greater degree of personal responsibility compared to traditional classroom settings. Moreover, *online learning assessment* and *online course participation* focus on the evaluation and tracking of progress, highlighting the role of assessment tools and the importance of engagement in maintaining learning outcomes.

Conclusions. The analysis of collocations involving nouns modified by "online" reveals several thematic groups that encapsulate key aspects of online learning and teaching. These include different teaching formats, learning environments, participants, engagement, assessment, time management, perceptions, and support resources. By categorizing these collocations, the study provides a comprehensive

overview of the multifaceted nature of online education, highlighting both its structural components and the experiences of those involved.

Various categories of collocations – descriptive, evaluative, and action-oriented – illustrate online learning depiction in the academic discourse. They define the structure of online education, the formats and systems that support it. Furthermore, they emphasize the active role of learners and educators in shaping and engaging with the learning process. This holistic approach enables a deeper understanding of the complexities of online education, emphasizing the interaction between content, structure, engagement, and outcomes.

Further perspectives of the research will focus on a more detailed analysis of the collocation online learning, as it proves to be the most frequent in the corpus. We plan to examine the verbs that frequently accompany this collocation, exploring how these verbs shape its meaning and usage in different contexts. Additionally, we will investigate its thesaurus to identify synonymous phrases and expressions, which will allow us to create a more comprehensive understanding of the different ways online learning is represented and discussed in academic discourse.

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