

Definition of student engagement in higher education: a bibliometric study

Definição de engajamento estudantil no ensino superior: um estudo bibliométrico

Definición de compromiso estudiantil en la educación superior: un estudio bibliométrico

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Abstract: This article aims to present perspectives on student engagement, its possibilities and the challenges faced by students during their path in Higher Education. Thus, through bibliometric research, we searched the SciELO database for publications to identify the different approaches referring to the theme of this work. From the collected data, we selected 24 articles for analysis. We found that the use of the term student engagement encompasses several aspects, such as: behavioral, emotional, and cognitive. In addition, we noticed that the term has varied and peculiar characteristics. Furthermore, we observed in the articles that there is no clear correlation between engagement and learning, a factor that may be the subject of studies for future research.

Keywords: student engagement; higher education; learning; bibliometric study.

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Resumo: O propósito principal deste artigo consiste em fornecer uma ampla variedade de visões e perspectivas a respeito do engajamento estudantil no ensino superior, explorando suas múltiplas possibilidades e os desafios enfrentados pelos alunos ao longo de sua trajetória acadêmica. Assim, com o intuito de realizar uma pesquisa completa e abrangente, realizou-se uma análise bibliométrica na extensa base de dados da SciELO - *Scientific Electronic Library Online*, com o objetivo de localizar publicações pertinentes ao tema em questão. Desse modo, a partir da seleção criteriosa de 24 artigos, foi possível identificar uma ampla gama de aspectos englobados pelo conceito de "engajamento estudantil", conglomerando não apenas elementos comportamentais, mas também emocionais e cognitivos. Adicionalmente, percebeu-se que esse termo apresenta características distintas e peculiares, que merecem atenção especial. Ademais, é relevante ressaltar que os artigos analisados não evidenciaram uma correlação clara entre o engajamento e o processo de aprendizagem, o que abre caminho para futuras pesquisas e investigações nesse âmbito.

Palavras-chave: engajamento do estudante; ensino superior; estudo bibliométrico.

Resumen: Este artículo tiene como objetivo presentar perspectivas sobre el compromiso estudiantil, sus posibilidades y los desafíos encontrados por los estudiantes durante su trayectoria en la educación superior. A través de una investigación bibliométrica, se buscaron publicaciones en la base de datos de SciELO para identificar las diferentes aproximaciones relacionadas con el tema. A partir de los datos recopilados, se seleccionaron 24 artículos para su análisis. Se observó que el término "compromiso estudiantil" abarca diversos aspectos, como el comportamiento, las emociones y los aspectos cognitivos. Además, este término tiene características variadas y particulares. Además, en los artículos se pudo observar que no existe una correlación clara entre el compromiso y el aprendizaje, lo cual puede ser objeto de estudio para investigaciones futuras.

Palavras clave: compromiso estudiantil; educación superior; aprendizaje; estudio bibliométrico.

1 Introduction

The argument that student engagement is necessary is prevalent in higher education discourse. Whether in face-to-face or distance learning education settings, in various fields of knowledge, student engagement has been a constant concern. In this regard, this article aims to present perspectives on student engagement, its possibilities, and the challenges encountered by students during their journey in higher education.

Many studies focus on student engagement due to the great potential for understanding higher education from the students' own perspective. This can be related to different aspects, such as the quality of study, the learning outcomes, the reasons for dropout, the effectiveness of offered teaching strategies, among others.

However, it is observed that there is no clarity regarding the meaning of student engagement in investigations involving higher education, once it is employed in various situations. For instance, "engagement" can be considered a multidimensional concept, so that there is no single approach that is fully satisfactory (MARTINS; RIBEIRO, 2017). Nevertheless, a considerable portion of studies typically addresses operational definitions to conceptualize the term.

Therefore, this work aims to investigate and describe the topic of student engagement in higher education, focusing on both academic and non-academic characteristics related to students' learning experiences and drawing analogies that encompass both their learning and personal lives. To this end, a bibliometric research was conducted using the SciELO database to identify different approaches regarding the discussed topic.

The research's relevance is justified particularly from two different perspectives. Socially, it is important to comprehend a widely used – but vaguely defined – concept, in order to achieve a clear understanding of its meaning and rational use in documents and discourses. From an academic standpoint, clarifying this question is crucial for research that relies on the concept as indicator of quality or effectiveness of learning and actions in higher education, for example.

2 Theoretical Foundation

"Engagement" has become a commonplace expression in education discourses and documents. The *Base Nacional Comum Curricular* (BNCC - National Common Curricular Base), for example, mentions the term without providing a definitive meaning. One of the actions highlighted by the document for specific curriculum articulation, for instance, is "to design and implement situations and procedures to motivate and **engage students** in their learning" (BRASIL, 2018, p. 17, emphasis added, our translation).

The term is also mentioned in documents related to higher education, such as the "External Institutional Evaluation: Face-to-Face and Distance Learning – Accreditation" (*Avaliação Institucional Externa: Presencial e a Distância – Credenciamento*) instrument, in its indicator 1.2: Institutional self-assessment: participation of the academic community. The following is the description for the highest concept level:

The self-assessment project describes how the participation of all segments of the academic community and organized civil society will take place (with the composition avoiding an absolute majority of any one group), encompassing diverse data collection instruments (tailored to the specificities of each segment and subject of analysis) and strategies to foster increasing **engagement** (BRASIL, 2017, p. 10, emphasis added, our translation).

In this document, once again, the definition and function of engagement are neglected. Not that its importance can be disregarded, but there is no discussion about the term, rendering it a common phrase in discourse.

It is understandable this emphasis placed on the term. At least since the New Education Movement, when the focus of the educational process shifted from the teacher to the student and the purpose of education began to be reevaluated, there has been a need to transform the school into a place of interest for the student. This is because it is known that the student does not learn passively: there must be something that makes him move towards the construction of knowledge. This "something" can be the desire: the student needs to have a desire to learn (MEIRIEU, 1998). Due to reasons originating from the student themselves or constructed by the teacher or other actors in the educational process during the act of teaching, desire is fundamental.

Since the so-called Fourth Educational Revolution (ARAÚJO, 2011), this imperative has taken on new contours. The widespread adoption – at least in theory – of active methodologies and digital information and communication technologies has changed the logic of this desire and how it is perceived in students.

Active methodologies should be understood as teaching processes in which the teacher is interested in putting the student to be taught in an action with a visible process and result, through specific strategies (OLIVEIRA, 2019). It is necessary to observe the student's actions – even though it is known that learning can occur even when they are not performing any visible activity (such as when they are simply reflecting, for example).

If the demand to "see" learning occurring with students is already challenging in face-to-face education, the insertion of technologies in educational processes has made it even more complex. The knowledge of educators should not lead to thoughtless integration of technologies in teaching, but rather enable a new way of

planning, implementing, and evaluating educational actions (OLIVEIRA, 2022; KOEHLER; MISHRA, 2009).

Especially since the Covid-19 pandemic, technology has gained more relevance in education. While it was previously a desirable factor, it has now become a reality in school teaching and learning processes, even if it was forcibly introduced (NÓVOA, 2020).

In this process, many teachers indicate a lack of ability to observe the students, to have visual cues if they have any doubts, and so on. In a study with teachers during the period of remote teaching during the Covid-19 pandemic, it was possible to understand the "anguish" mentioned by these teachers due to the lack of face-to-face interaction and the visual cues it provided (OLIVEIRA; GARBIN; PIRILLO, 2021).

Thus, reflecting on the use of technology in education becomes imperative, from the simplest forms (such as mobile phones or virtual learning environments) to virtual and futuristic metaverse worlds. This is because the integration of these elements strongly impacts teaching and learning, as mentioned earlier. Technologies have altered the general perception of being human: whereas it was previously necessary to respond to questions immediately and deal with possible unpleasant events, the internet and messaging apps now allow individuals to choose when and how to respond. In theory, the competence to deal with adversity is less developed (TURKLE, 2015).

The discourse of engagement emerges in this context. The student must be actively involved in their learning, perceiving it as of utmost importance. But why? What evidence exists that being engaged can make learning more effective? On a deeper level, what is engagement in education?

It is in this context that this article is found: to reflect on engagement in the context of Brazilian higher education. It starts with reflections regarding the concept of engagement and the need for at least three elements to build an environment open to engagement, especially in digital education: culture of connection (both technological and institutional positioning for reception and dialogue - connecting with people), an environment open to questioning and inclusion (such as inclusive actions with students and, at the same time, institutional inclusion policies, for example). In summary, it would be the construction of an ethos of care, something like a spirit of care, affection, attention (GOURLAY, 2015; GOURLAY *et al.*, 2021).

For this article, we use a conceptualization of engagement in order to deal with the categorization that will be carried out in the analyses. According to the authors, there are three pillars that support student engagement: behavioral, which refers to actions and the completion of tasks; emotional, focused on students' attitudes, interests, and values; and cognitive, directed towards their learning and how they self-regulate (FREDRICKS; BLUMENFELD; PARIS, 2004).

3 Methodology

A bibliometric study with a mixed approach was conducted to map national scientific productions on engagement in education, as well as their definitions and main adopted references.

To select the corpus for analysis, we used the SciELO as a database where we searched for contributions that could help the development of to the understanding the definition of the term engagement. The search, conducted in October 2022, used the descriptors "*engajamento*" (engagement) and "*ensino superior*" (higher education) in association - considering the objective of this article - and returned with 24 papers.

To fulfill the proposed objectives, the present study followed these steps: identification of the theme and guiding question; establishment of selection criteria for the corpus; search and selection of studies in the database; and construction of a table for the analysis and discussion of the results. Inclusion criteria were set for papers that addressed engagement in higher education - articles that, despite appearing in the results due to the use of descriptors, did not directly address the topic were discarded. No specific time frame was established for the search of publications, so the period was defined based on the appearance of the first work. To illustrate the collected data, the search results were organized (Table 1) under the following topics: title, authorship, journal, year of publication, methodology, main references, and definition of the term engagement.

Table 1 – Example of categorization of the papers found

	Title	Authorship	Journal	Year	Methodology	Main references	Definition of engagement
1							
2							

Source: the authors.

Thus, we added a line on the board for each paper found. Each column refers, therefore, to a data collected to be considered in the discussion of this work, according to the next section.

4 Results and Discussions

Two main challenges in these processes were the lack of certain data in part of the publications or, even, the non-objective information of the data (such as the methodology for collecting and/or analyzing the data that were used). So, we were compelled to assume the information during the analysis of the articles (Table 2). Next, there are quantitative and qualitative analyzes regarding these results.

Table 2 – Categorization of the papers

	Title	Authorship	Journal	Year	Methodology	Main references	Definition of engagement
1	Health promotion actions in universities in the face of the covid-19 pandemic: a scoping review	Santiago, Adriana da Silva; Sabóia, Vera Maria; Souza, Sônia Regina de; Prado, Gabriela Silva dos Santos; Sota, Fabiana da Silva	Texto & Contexto - Enfermagem	2022	Bibliographic research	Not identified	Engagement is being used to refer to participation
2	Políticas de acesso e permanência na universidade do Texas, Austin (EUA): elementos para reflexão sobre o caso brasileiro	Heringer, Rosana	Educar em Revista	2022	Bibliographic research; analysis of documents and interviews	Vincent Tinto (1975, 1999); Alain Coulon (2008); Prado (2020)	The idea of student engagement consists mainly of an attitude of student involvement and commitment to their development.
3	A identificação dos discentes com as associações atléticas universitárias e o reflexo quanto ao engajamento estudantil junto às instituições de ensino superior	Fagundes, André Francisco Alcântara; Prado, Rejane Alexandrina Domingues Pereira do; Felix, Débora Fabiana	Educação e Pesquisa	2022	Descriptive research with a quantitative approach. Use of questionnaires	Tajfel (1981); Matta; Lebrão; Heleno (2017); Almeida; Ferreira; Soares (1999); Gould; Carson (2008); Holt Neely (2011)	Participation, involvement, enthusiasm
4	Mensuração do engajamento online de estudantes do ensino superior: uma revisão de escopo na literatura internacional	Ortega, Fernanda da Cunha; Irala, Valesca Brasil	Texto Livre	2022	Model PRISMA-ScR for Scoping Review	Horn; Staker (2015); Redmond (2018); Tricco et al. (2018); Peters et al. (2020)	Considered a variable that can influence student performance. It has a strong relationship with student learning and satisfaction
5	Os saberes da complexidade e as práticas pedagógicas	Luppi, Mônica Aparecida Rodrigues; Behrens, Marilda Aparecida; Prigol, Edna Liz	Educação e Pesquisa	2022	Action research	Morin (2001)	Engagement is being used to refer to participation (the term appears once)
6	Profile of the graduates of the	Manta, Sofia Wolker;	Revista Brasileira de	2020	Case study	Not identified	Engagement is being used to

	PhD course of the postgraduate program in physical education: a case study at federal university of Santa Catarina (2006 to 2018)	Sandreschi, Paula Fabricio; Cardoso, Allana Alexandre; Benedetti, Tânia Rosane Bertoldo; Farias, Gelcemar Oliveira; Resende, Rui; Nascimento, Juarez Vieira do	Cineantropometria & Desempenho Humano				refer to participation
7	Relações de confiança e sua instrumentalização no controle de docentes em IES privadas	Medeiros, Bárbara Novaes; Siqueira, Marcus Vinicius Soares	Revista Eletrônica de Administração (Porto Alegre)	2019	Exploratory-descriptive research	Not identified	It addresses the management of affections in favor of engagement
8	Engagement of multi-professional residents in health	Rotta, Daniela Salvagni; Lourenção, Luciano Garcia; Gonzalez, Elizangela Gianini; Teixeira, Priscila Regina; Gazetta, Cláudia Eli; Pinto, Maria Helena	Revista da Escola de Enfermagem da USP	2019	Cross-sectional census study (Utrecht Work Engagement Scale), through questions distributed in the dimensions Vigor, Dedication and Absorption	Schaufeli, Salanova, González-romá e Bakker (2002)	Involvement and appreciation. (Force, Dedication, and Absorption)
9	Antecedents of work engagement of higher education professors in Brazil	Mercali, Gabriele D.; Costa, Silvia G.	RAM. Revista de Administração Mackenzie	2019	Quantitative approach. Online questionnaire	Schaufeli, Salanova, González-romá e Bakker (2002)	Engagement is defined as a positive state of mind characterized by force, dedication and absorption
10	Engajamento entre estudantes do ensino superior nas ciências da saúde (validação do questionário utrecht work engagement scale (uwes-s) com estudantes do ensino superior nas	Silva, Juliana Ollé Mendes da; Pereira Junior, Gerson Alves; Coelho, Izabel Cristina Meister Martins; Picharski, Gledson Luiz; Zagonel, Ivete Palmira Sanson	Revista Brasileira de Educação Médica	2018	Cross-sectional analytical observational study, with a quantitative approach	Caballero (2006); Cunha E Carrilho (2006); Portomartins e Basso-machado (2013); Schaufeli e Bakker (2003); Blasquesz (2011); Wang e	Engagement is linked to the connection with the activity and can be perceived in the individual by the energy expended, involvement and effectiveness in performing a certain activity.

	ciências da saúde)					Fredricks (2011)	
11	A Wikipédia como fonte de informação de referência: avaliação e perspectivas	Kern, Vinícius Medina	Perspectivas em Ciência da Informação	2018	Not identified	Not identified	Engagement as active participation
12	O sentido da relação trabalho e saúde para os assistentes em administração de uma universidade pública federal no estado de Minas Gerais	Faria, Renata Mercês Oliveira de; Leite, Isabel Cristina Gonçalves; Silva, Girlene Alves da.	Physis: Revista de Saúde Coletiva	2017	Focus group	Ferreira (2012); Clot (2010); Jackson Filho (2015)	Engagement related to motivation. (belonging, involvement, commitment, appropriation, feeling useful)
13	As aulas de graduação em uma universidade pública federal: planejamento, estratégias didáticas e engajamento dos estudantes	Sá, Eliane Ferreira de; Quadros, Ana Luiza de; Mortimer, Eduardo Fleury; Silva, Penha Souza; Talim, Sérgio Luiz	Revista Brasileira de Educação	2017	Statistical methodology. Test analysis of variance (ANOVA)	Fredricks; Blumenfeld; Paris (2004); Australia 2005); Marks (2000); Singh; Granville; Dika (2002); Borges; Julio; Coelho (2005); Julio; Vaz; Faria (2006); Milne; Otieno (2007); Faria (2008)	Engagement refers to the relationship that the student establishes with the school activities proposed to them. This relationship is influenced by the interaction between the student and the context in which the activity takes place, as changes in context imply changes in levels of engagement
14	Engajamento do estudante no ensino superior como indicador de avaliação	Martins, Letícia Martins de; Ribeiro, José Luis Duarte	Revista da Avaliação da Educação Superior (Campinas)	2017	International literature review	Astin (1984); Pace (1984) Kuh (2009); Marti (2009); Mcclenney; Marti; Adkins (2012)	The concept of engagement considers student learning and is linked to external factors
15	Engajamento cívico e escolaridade superior: as eleições de 2014 e o comportamento	Dias, André Luiz Vieira; Kerbauy, Maria Teresa Miceli	Revista de Sociologia e Política	2015	Descriptive data analysis, based on the logistic regression model	Putnam (2000); Schlegel (2010)	Active participation, involvement

	político dos brasileiros						
16	Students' motivation for learning in virtual learning environments	Beluce, Andrea Carvalho; Oliveira, Katya Luciane de	Paidéia (Ribeirão Preto)	2015	Case study	Guay, Vallerand e Blanchard (2000)	Refers to motivation for learning
17	O (não) funcionamento da reescrita em textos produzidos por licenciandos em letras	Ferreira, Elisa Cristina Amorim; Araújo, Denise Lino de	Trabalhos em Linguística Aplicada	2014	Interpretative, follows the procedures of documentary and exploratory work	Kato (1993); Meurer (1997); Sautchuk (2003); Jesus (1995); Ruiz (2001); Antunes (2003)	Engagement combined with experience and proficiency
18	Fatores que tornam o professor de ensino superior bem-sucedido: analisando um caso	Quadros, Ana Luiza de; Mortimer, Eduardo Fleury	Ciência & Educação (Bauru)	2014	Discourse analysis; semi structured interview	Mortimer et al. (2007); Vygotsky, Luria, Leontiev, (1988); Vygotsky, 1993	It is related to diversified teaching strategies X student engagement
19	O processo dialógico de construção do conhecimento em fóruns de discussão	Bicalho, Rute Nogueira de Moraes; Oliveira, Maria Cláudia Santos Lopes de	Interface - Comunicação, Saúde, Educação	2012	Conversation Analysis	Hutchby, Drew (1995); Pontecorvo, Ajello, Zucchermaglio (2005); Machado (2005); Lopes de Oliveira (2000)	They point to a significant relationship between the dialogic engagement of the interlocutors and the quality of the learning processes
20	Integração entre atividades computacionais e experimentais como recurso instrucional no ensino de eletromagnetismo em física geral	Dorneles, Pedro Fernando Teixeira; Araujo, Ives Solano; Veit, Eliane Angela	Ciência & Educação (Bauru)	2012	Face-to-Face Collaborative Case Study	Ausubel (2003); Vygotsky (2003); Hodson, (1994); Gil-pérez et al. (1999); Ronen; Eliahu (2000); Borges (2002); Zacharia (2007)	Significant relationship between the dialogic engagement of the interlocutors and the quality of the learning processes
21	Desafios da gestão coletiva da atividade na docência universitária	Nascimento, Elvia Lane Araújo do; Vieira, Sarita Brazão; Araújo, Anísio José da Silva	Psicologia: Ciência e Profissão	2012	Qualitative study; Non-directive interviews and document analysis	Not identified	Performance and productivity
22	A resposta das politécnicas	Lyytinen, Anu; Hölttä, Seppo	Caderno CRH	2011	Multiple case studies -	Burton Clark (1998)	Performance and productivity

	finlandesas aos desafios das políticas de inovação e de desenvolvimento regional				experience analysis		
23	A avaliação no contexto da formação médica brasileira	Mourão, Maria das Graças Mota; Caldeira, Antônio Prates; Raposo, José J. B. Vasconcelos	Revista Brasileira de Educação Médica	2009	Not identified	Not identified	Social engagement. Commitment
24	Engajamento político, competência técnica e elites dirigentes do movimento ambientalista	Oliveira, Wilson José Ferreira de	Revista de Sociologia e Política	2008	Biographical interviews	Not identified	Social engagement. Commitment

Source: the authors.

Based on the collected data, it is observed that out of the 24 articles, 2 are from the same authors (QUADROS; MORTIMER, 2014; SÁ *et al.*, 2017). However, the publication from 2017 has contributions from other authors. The chronological order of the articles begins with the first publication in 2008, with 1 article published. The remaining publications were distributed as follows: 2009 (1); 2011 (1); 2012 (3); 2014 (2); 2015 (2); 2017 (3); 2018 (2); 2019 (3); 2020 (1); 2022 (5). No publications were identified in the years 2010, 2013, 2016, and 2021.

It is noted, therefore, that the year 2022 had the highest number of records - although a more in-depth analysis does not allow for correlating this information with research focused on educational processes carried out during the COVID-19 pandemic. It should be noted that 4 articles are written in English.

Regarding the journals in which the articles were published, it was possible to find 2 articles in *Ciência & Educação*, *Revista Brasileira de Educação Médica*, and *Revista de Sociologia e Política*. In addition, one publication was identified in each of the following journals: *Interface - Comunicação, Saúde, Educação*; *Educar em Revista*; *Educação e Pesquisa*; *Revista Brasileira de Educação*; *Revista da Avaliação da Educação Superior*; *Physis: Revista de Saúde Coletiva*; *Revista Brasileira de Cineantropometria & Desempenho Humano*; *Paidéia*; *Psicologia: Ciência e Profissão*; *Texto & Contexto - Enfermagem*; *Revista da Escola de Enfermagem da USP*; *Revista Eletrônica de Administração*; *RAM: Revista de Administração Mackenzie*; *Perspectivas em Ciência da Informação*; *Trabalhos em Linguística Aplicada*; *Texto Livre e Caderno CRH*.

It is possible to verify that the field of education is indeed predominant in the journals where the publications occur. However, it is worth noting the existence of a series of publications in the field of Health, such as in *Revista Brasileira de Educação Médica* and *Revista Brasileira de Cineantropometria & Desempenho Humano*. This follows a similar path to some of the contemporary approaches to active methodologies, such as Problem-Based Learning or Project-Based Learning, which were initially adopted in courses such as Medicine (OLIVEIRA, 2019) and later expanded to other courses and areas.

Regarding the most used methodology in the writings, it was possible to find case studies in 4 articles.

the case study can be conducted according to an interpretative research approach, which seeks to understand how the world is viewed from the participants' perspective, or a pragmatic perspective, which aims to simply present a comprehensive, complete, and coherent view of the object of study from the researcher's point of view (FONSECA, 2002, p. 33, our translation).

This can be observed, for example, in an article found in this research. In the narrated investigation, a didactic action was conducted in "a physics class [...], covering the entire content of Electromagnetism at the General Physics level" (DORNELES; ARAUJO; VEIT, 2012, p. 99, our translation). It is an occasion in which close and in-depth data can be obtained from a selected group – in this case, students.

Two other publications used literature review as the methodology, that can be "developed based on previously elaborated material, mainly consisting of books and scientific articles" (GIL, 2002, p. 44, our translation). This is the case of one of the papers found in this research, which adopts this procedure to understand engagement as a factor of success, based on research written in English (HERINGER, 2022). Since, as mentioned, it is a term still lacking in definition, the strategy of literature review is relevant to understand what is currently available and, in subsequent applied research, support the construction of the concept.

In the analyzed articles, other analytical procedures were also identified. These include interviews, questionnaires, discourse analysis, document analysis, and analysis of variance.

Based on the listed articles, it was possible to identify that in a large part of the papers, the term engagement is used as a visible process of institutional participation and involvement, and therefore, it should be fostered through actions by the university itself, as the context influences the level of engagement. This definition aligns with one of the main streams. "There is much discussion around activities relevant to the connection between communities, access to information, peer work and idea sharing, and development of academic identity – important elements of students' digital engagement" (GOURLAY, 2017, p. 412, our translation).

In other words, scientific publications that delve into this path tend to emphasize the role of the institution in motivating students in engagement processes.

During the period in which the student is attending the university, engagement is related to both the characteristics and behaviors specific to the student's transition to becoming a university student, as well as factors related to the educational institution itself and its practices. Regarding the educational institution, we observed factors that involve everything from discipline to the overall campus environment and its services and activities, as well as the faculty and interactions among peers (MARTINS; RIBEIRO, 2017, p. 240, our translation).

For a better understanding, the writings were classified into three categories corresponding to the three dimensions of the concept of engagement: behavioral, emotional, and cognitive (FREDRICKS; BLUMENFELD; PARIS, 2004). The authors argue that analyzing engagement from these three perspectives can enhance its richness.

In the first dimension, namely behavioral, 8 articles were identified that refer to the positive attitudes of individuals towards rule adherence and execution. It also encompasses participation, involvement, performance, and observable actions. This perspective aligns with the contributions of the authors, stating that behavioral engagement relates to student participation, involvement, and positive conduct exhibited by them (FREDRICKS; BLUMENFELD; PARIS, 2004).

An example is a study found in this research, that examined factors related to Academic Athletic Associations (AAA). In this context, the authors point out that "students' identification with AAA can contribute to student engagement with the educational institution, and the educational institution can leverage sports to generate greater student engagement with the institution" (FAGUNDES; PRADO; FELIX, 2022, p. 19, our translation).

Subsequently, there were 9 articles that addressed the affective attitudes of individuals and the bonds established with institutions, as well as the sense of belonging to the community they are part of – emotional aspects. In this regard, emotional engagement involves the affective and emotional reactions of students to activities, individuals, and other elements that compound the school environment (FREDRICKS; BLUMENFELD; PARIS, 2004, our translation).

Other paper discusses affective management as a factor in teachers' control (MEDEIROS; SIQUEIRA, 2019). Terms such as "promoting trust" and "building affective bonds" are common in this line of research, characterizing engagement as an emotional construct.

Continuing, 5 other documents focus on cognitive elements such as the level of dedication and value that individuals place on their own learning. Cognitive engagement is related to students' force in learning, characterized by the effort they

invest in achieving higher levels of understanding in a particular subject (FREDRICKS; BLUMENFELD; PARIS, 2004).

For instance, other paper aligns with this category. According to the authors, the didactic proposal carried out in the case study of their research can "promote interactivity and student engagement in their own learning, transforming the classroom into an environment conducive to meaningful learning" (DORNELES; ARAUJO; VEIT, 2012, p. 118, our translation). In other words, the activities conducted had the potential to motivate students to dedicate themselves more to their studies and their own learning.

Finally, 2 articles did not fit into any of the aforementioned categories.

5 Final Remarks

This article sought to present a perspective on student engagement, identifying possibilities and challenges encountered by students during their journey in higher education. Through bibliometric analysis, it was possible to examine the quantity of publications related to the theme of engagement. In general, it can be said that student engagement encompasses behavioral, emotional, and cognitive aspects and can be understood as a complex and multifaceted construct, with varied and distinct characteristics.

Thus, based on this study, it is evident that the term engagement was used in the articles to refer to students' participation and involvement in academic activities and their relationship with educational institutions, in a context where variables influence the level of engagement. However, the articles do not present a clear correlation between engagement and learning, which could be a subject of investigation for future research.

Although this bibliometric study has provided contributions regarding the concept of engagement, it is important to acknowledge its limitations, as it focused on understanding engagement within the scope of higher education. Therefore, it is emphasized the importance of future studies evaluating student engagement in other levels of education, aiming for a better understanding and definition of the term engagement.

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