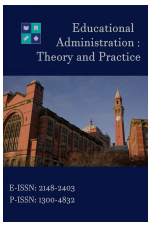
Kuram ve Uygulamada Eğitim Yönetimi
Educational Administration: Theory and Practice
2023, Cilt 29, Sayı 4, ss: 35-49
2023, Volume 29, Issue 4, pp: 35-49
www.kuey.net



Student Engagement and its Association with Peer Relation and Teacher-Student Relation: A Systematic Review

Yue Hu [1], *Mansor Bin Abu Talib* [2*]

Article History

Article Submission
05 March 2023
Revised Submission
13 April 2023
Article Accepted
08 May 2023

Abstract

In recent years, the topic of student engagement has received a lot of attention in educational research. The relationship between student engagement and peer relationship, as well as teacher-student relationship, has also been extensively researched. Positive peer relationship is associated with higher levels of engagement, as students who feel connected to their peers are more likely to participate in school activities and be driven to excel academically. Positive relationship with instructors has also been demonstrated to promote student engagement, as students who are supported by their teachers are more likely to participate in class, finish assignments, and be driven to learn. This study conducts an integrative assessment of the scientific literature on student engagement, focusing on its relationship to the teacher-student relationship and peer relationship. The databases PubMed, PsycINFO, and Scopus were used to search for articles on student engagement published in English and Chinese between 2019 and 2023. Following the application of the inclusion and exclusion criteria, a total of 16 studies were chosen. The vast majority of the studies were empirical and employed quantitative research methods. The findings show a link between student engagement and teacher-student relationship and peer relationship. Individual (e.g., motivation, self-efficacy) and environmental (e.g., teacher support, peer interactions) characteristics were found to influence student engagement. The review emphasizes the importance of encouraging student engagement in educational environments since it can improve academic achievements and create positive student well-being. Furthermore, it emphasizes teachers' vital role in developing supportive classroom settings that promote student involvement.

Keywords: Student Engagement; Peer-Relation; Teacher-Student Relation; Motivation; Teacher Support; Teacher-Student Interaction

[1]*Doctor, Faculty of Social Sciences and Liberal Arts, UCSI University, Kuala Lumpur, Malaysia, 1002163449@ucsiuniversity.edu.my*

[2*]*Professor, Centre of Research for Mental Health and Wellbeing, UCSI University, Kuala Lumpur, Malaysia, mansorat@ucsiuniversity.edu.my*

Introduction

Student engagement is a multifaceted concept that relates to the degree to which students are involved, interested, and motivated in the activities that they are participating in for their education (Gan, 2020). The idea of student engagement has received a large amount of attention in recent years because it is strongly related to beneficial educational outcomes such as increased academic achievement, higher graduation rates, and improvements in both cognitive and social skills (Dwijuliani et al., 2021). A variety of measures that take into consideration a variety of characteristics, such as a student's behavioral engagement, emotional engagement, and cognitive engagement, can be used to assess the student's level of engagement. Attendance, involvement, and the successful completion of assignments are examples of activities that fall under the category of behavioral engagement (Straughn, & Andriot, 2011). Cognitive engagement entails the effort that is put into the learning process in addition to the investment of mental resources. Emotional engagement, on the other hand, refers to the pleasant or bad sentiments that students have when participating in learning activities.

Studies have identified some factors that influence student engagement, some of which include the instructional practices of the teacher, the environment of the classroom, the curriculum and materials, the personal characteristics of the student, and the cultural and social context of the learning environment (Bond & Bedenlier, 2019). In addition, the degree to which students are engaged in the learning process is a fluid and interactive process that is dependent on the interplay between these various components. It is crucial to comprehend student engagement from the perspective of the student, who should be considered an active and participating subject rather than just an object of research. This understanding can only be gained by looking at student engagement from the student's point of view. We can create a learning environment that is interesting, inspiring, and meaningful by encouraging student engagement. This, in turn, leads to improved educational results and better-prepared students for success in their future efforts.

Literature review

According to Olivier, Archambault, De Clercq, and Galand (2019), the following are the primary axes that have been investigated in the research on student engagement: (1) the unfavorable indications of disengagement, which are researched in the vast majority of studies: (2) the enormous gaps that currently exist between the points of view held by instructors (subjective) and those held by students (subjective): (3) the existing distinctions between the behavioral (observable actions) and emotional (affective reactions) aspects of engagement; (4) the characterization of engagement, which is more complex than a simple absence of disengagement and includes factors such as motivation, interest, and participation and the implications of these distinctions and characterizations for research and practice: (5) The preponderance of research in the framework of the classroom setting.

The proximal processes or significant reciprocal relationships that promote healthy development are said to take place in the microsystemic setting, by the Bioecological Theory of Human Development. According to Bond and Bedenlier (2019), these interactions are vital to the process of encouraging student engagement and making the most out of the educational experience. It is necessary, to nurture student engagement both in the short term and in the long term, to gradually improve the complexity, frequency, and continuity of positive interactions within the microsystem. In the context of education, the home, the school, the peer group, and the community are examples of the microsystemic spheres that each play a vital role in boosting student engagement (Skinner, Rickert, Vollet, & Kindermann, 2022). Understanding the dynamics of these relationships is essential for facilitating a positive and enriching educational experience; the purpose of this study is to investigate the critical role that the relationship between the teacher and the student, as well as the relationship between the students themselves, plays in promoting student engagement.

Substantial research has demonstrated that a positive relationship with one's peers is an essential component of healthy development in children and adolescents and that during this period of transition, children and adolescents tend to spend more time with their peers than with

their families (Sedláček & Šeďova, 2020). These interactions are extremely important in the process of forming children's perceptions of themselves and their overall well-being, which, in turn, has a substantial influence on the level of engagement that children have in the learning process (Spilt, Koomen, & Thijs, 2011). Although children's connections with their peers are distinct and distinct from their interactions with adults, they are complementary and supplementary to children's ties with their families in the children's socialization system (Gebauer, McElvany, Bos, Köller, & Schöber, 2020). When it comes to education, having a positive relationship with one's classmates is an important factor in maintaining active student engagement. Peer relationships and the environment they create have been called the single most critical contributor to a child's overall well-being, and as such, they are necessary for the development of student engagement (Gristy, 2012). Yet, not much research has taken a detailed look at the link between student participation and the quality of their connections with their classmates (Zepke, 2015). As a result, the purpose of this research is to fill a vacuum in the existing body of knowledge and investigate the multifaceted role that peer relationships play in encouraging student engagement.

According to the findings of several studies, positive teacher-student interactions are crucial to academic achievement as well as the general well-being of students. Pupils who have healthy relationships with their educators have a greater tendency to be actively involved in their schoolwork and achieve higher levels of academic success (Martin & Collie, 2019). Also, having a positive relationship between students and teachers can contribute to the student's social and emotional growth, which ultimately leads to better well-being for the students.

The relationship between a teacher and a student is distinct from all other sorts of partnerships because it involves a power dynamic and a shared responsibility for the education of the learner. Relationships between students and teachers that are productive are characterized by trust, mutual respect, and clear communication, all of which can contribute to increased levels of student engagement and motivation (Engels, Spilt, Denies, & Verschueren, 2021).

In the past several years, researchers have been paying a growing amount of attention to an important field of research that focuses on the level of student engagement as well as its correlation with teacher-student interactions and peer relationships (Tong, Reynolds, Lee, & Liu, 2019). Even if there is a growing body of literature on this subject, there is still a need for an integrative literature evaluation of the most recent scientific production to have a better understanding of the state of the art at present. The question "What is the present state of research on student engagement and its correlation with teacher-student interactions and peer relationships?" will serve as the guiding question for this review. This study seeks to discover the most recent findings and their implications for supporting healthy student development by performing an integrated literature review of studies published in English and Chinese from 2019 to 2023. These papers will be reviewed both in English and in Chinese.

Methodology

Type of Study

The purpose of this literature review is to collect, analyze, and summarize the findings of studies that have been conducted on a specific subject by combining empirical research with theoretical study. According to the study, conducting this kind of evaluation requires taking some cautious procedures. An integrated review compiles findings from a variety of different sources and broadens one's understanding of the topic that is being researched. According to the study, eight steps were followed to structure and carry out the research for this review, and those steps are as follows: (1) determining and defining the scope of the study; (2) selecting databases; (3) deciding on keywords to use for the search; (4) collecting and storing data from databases; (5) selecting articles based on inclusion and exclusion criteria derived from titles, abstracts, and keywords; (6) extracting data from selected articles; (7) assessing the articles; and (8) synthesizing and interpreting data. The research was conducted by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) flow diagram standards from 2015, which included the number of records that were collected, screened, and chosen (Figure 1).

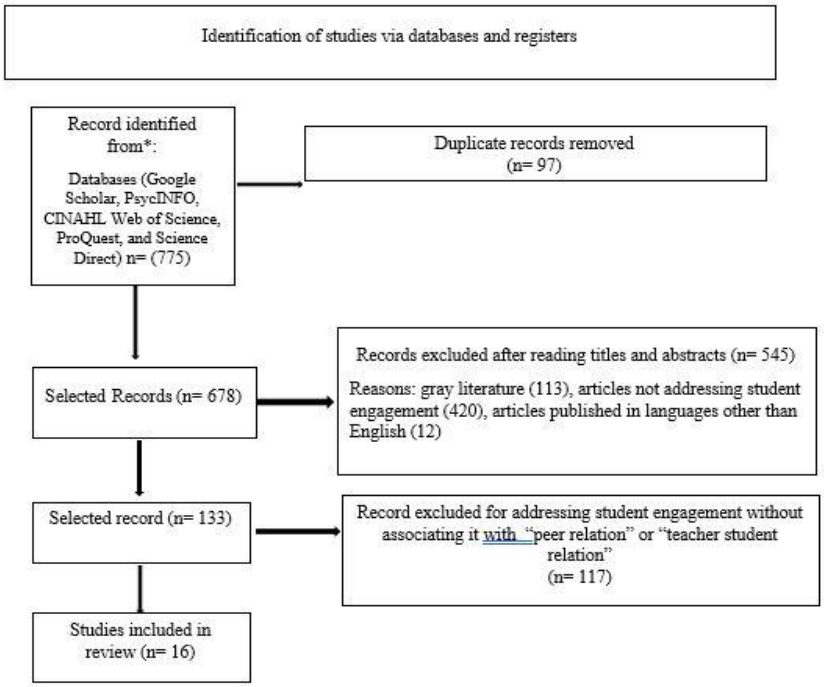


Figure 1. Flowchart of selection, exclusion, and inclusion of studies

Indexing Bases and Keywords Used

To conduct a literature study on the subjects of student engagement, peer relations, and teacher-student relations, a search was undertaken using the following terms: "student engagement," "peer relationship(s)" or "peer group(s)", and "teacher-student relationship(s)" or "teacher-student interaction(s)". These terms, in conjunction with pertinent keywords in both English and Chinese, were entered into search engines including PubMed, PsycINFO, SciELO, and Scopus, and results were retrieved.

Inclusion and Exclusion Criteria

Recent research on student engagement, peer interactions, and teacher-student relationships was the primary emphasis of the literature review on these topics, which was done in 2019-2023. This time span was selected to guarantee that the review covered current research on the subject, which would offer updated insights, discussions, and approaches to the problem. The inclusion criteria for the search required that the studies be accessible in English and Portuguese, as well as contain the terms "student engagement," "peer relationship(s)" or "peer group(s)," and "teacher-student relationship(s)" or "teacher-student interaction(s)" in the title, abstract, and/or keywords. Additionally, the studies needed to be published in a peer-reviewed journal.

In addition, the research had to be carried out with participants from the general student population, irrespective of their ages, and the database had to contain the complete versions of the studies in their entirety. Following an analysis of the titles and abstracts, the exclusion criteria were applied. These criteria included duplicate articles, gray literature, studies published before 2019, and studies that did not address at least one of the variables in question, such as "student engagement," "peer relation," or "teacher-student relation." Additionally, studies that did address at least one of the variables in question were included.

The purpose of the literature review was to give a complete overview of the most recent research on student engagement, peer interactions, and teacher-student relation. These criteria were used to evaluate the research. The study found the components that contribute to the academic achievement and overall well-being of students. These factors include aspects such as students' levels of motivation, engagement, social support, collaborative efforts, communication, and feedback. This methodology ensures that the review is current and pertinent, so providing useful insights into the topic for future research and actions.

Procedures and Data Analysis

A comprehensive search using the necessary keywords and databases was carried out to study the relationship between student engagement, peer relation, and teacher-student relation. The retrieved papers were analyzed using inclusion and exclusion criteria that had already been established, and then the articles that passed this screening were judged by two different people for their level of relevance. The disagreements were settled by reaching a unanimous decision. A two-phase multi-method design was used to organize and evaluate the data that were retrieved from the selected studies. This provided a thorough approach to examining the topic that was being looked into. In particular, the studies were analyzed to evaluate the extent to which positive peer ties and teacher-student relations were connected with student engagement. In order to provide a thorough knowledge of the relationship between student engagement, peer relation, and teacher-student relation, the findings of the studies were examined and synthesized. The findings of the investigation were arranged and presented in a spreadsheet created in Excel, which made it possible to compare and evaluate the data in a straightforward manner (Table 1).

Table 1. Instruments used to assess the constructs

Instruments used to assess aspects related to employee engagement, peer relationships, and student-teacher relation	**Construct Evaluated**
Student engagement scale (Pafu, 2009)	The goal of the scale was to create a reliable student engagement scale that incorporated behavioral, affective, and cognitive domains as well as target factors relating to engagement in class, relationship with faculty and staff, relationship with peers, participation in campus activities, and utilization of campus facilities.
Higher Education Student Engagement Scale (HESES) (Zhoc, 2019)	The HESES was developed based on our proposed five-factor model of student engagement, which was evolved from Finn and Zimmer's student engagement model taken into account the distinctive characteristics in higher education.
The Scale of Student Engagement in Statistics (Whitney, 2018)	The Scale of Student Engagement in Statistics was developed to better understand and measure the structure of student engagement at this micro level, resulting in a three-factor structure of engagement consisting of affective, behavioral, and cognitive features.
Pianta Student-Teacher Relationship Scale (Robert, 2021)	The Pianta Student-Teacher Relationship Scale (STRS) is an instrument to measure teachers' perceptions of their relationships with individual students.
Student Version of the Teacher-Student Relationship Inventory (S-TSRI) (Ang, 2020)	The Student-Teacher Relationship Scale (STRS) developed by Pianta (2001) includes dimensions such as closeness, dependency, and conflict, and is the most commonly used instrument measuring the quality of the teacher-student relationship.
Student-Teacher Relationship Scale - Short Form (Robert, 2001)	A semi-structured, 11-question, narrative interview concerning teachers' representations of their relationships with a specific student, elicits relationship narratives encompassing seven dimensions of a teacher's relationship.
Developing a Peer Relationship Scale for Adolescents (Aydoğdu, 2022)	The study aims to develop a valid and reliable tool to measure adolescents' peer relationships.
PEER RELATIONSHIP SCALE (Bapoğlu Dümencİ, 2019)	The scale was developed to investigate adolescents' peer relations. The scale consisted of 18 items and four subscales. These subscales are Commitment, Trust and Identification, Self-disclosure, and Loyalty.
Peer Relationship Scale (Kaner, 2000)	The scale consisted of 18 items and four subscales. These subscales are Commitment, Trust and Identification, Self-disclosure, and Loyalty. The items were rated on a five-point scale.

A quantitative analysis of the publication profile of the studies was carried out by the

researchers during the first phase of the project. This analysis focused on the following aspects of the studies' publication profiles: language, year of publication, nationality of the institution where the first author was employed, journal, nature of the article, approach, instruments of data collection, number of participants, and ages of the participants. Indicators pertaining to student involvement were also employed to characterize the studies. These indicators included the definition of engagement that was applied, the measurements that were used to quantify engagement, and the levels of engagement that were observed. The researchers moved on to the second part of their project, which consisted of conducting a qualitative analysis of the outcomes and contents of the studies using the standards for content analysis. They identified a number of thematic categories related to the association between student engagement, peer relationship, or teacher-student relationships. Some of these thematic categories include the impact of peer relationship on student engagement, the role of teacher-student relationship in promoting engagement, the influence of individual and contextual factors on engagement and relationships, and the challenges of measuring engagement and relationships.

Results

After conducting the first search, a total of 775 publications were found. When doing the analysis of the titles, keywords, and abstracts, we made use of inclusion and exclusion criteria. According to the criteria, a total of sixteen articles were chosen and read in their entirety. Articles that were duplicated in databases (97), gray literature (113), articles that did not address student engagement (420), articles that were published in languages other than English (12), and articles that did not mention peer relationship or teacher-student relationship (117) were not included in the initial search results.

Quantitative Characterization of the Articles

The vast majority of published works (n = 14) are composed in the English language and concentrate on quantitative, cross-sectional empirical approaches. On the other hand, there are also a couple of qualitative studies (n=2) that can be found (Table 2).

Table 2. Information of the reviewed articles (n = 16)

Authors	Year	Nature	Factor associated	Approach	Country	Sample size
Carmen M. Amerstorfe, Clara Freiin von Münster-Kistner	2021	Theoretical	teacher	Quanti	Australia	34 student
Debora L. Roorda, Terrence D. Jorgensen	2019	Empirical	Student teacher relationship	quali	Netherland	476 student
Martin, A. J., & Collie, R. J.	2019	Empirical	Student teacher relationship	quanti	America	2079
Chih-Hung Lai, Hung-Wei Lin	2019	Empirical	Peer interaction	quali	China	15
Martin Sedláček, Klára Šeďova	2020	Empirical	Student relationship with peers	quanti	America	639
Lili Tian, Yu Zhou	2020	Empirical	Peer and teacher relationship	quanti	China	15
Ingrid Snijders, Lisette	2020	Empirical	Student-faculty relationship	quanti	Nether land	454 students
Maaike C. Engels, Jantine , Katrijn	2021	Empirical	Student teacher relationship	quali	America	5382
Ainsley Losh, Abbey, Jan	2022	Empirical	Student teacher relationship	quali	Southern California	146
Dejan Đorđić, Stefan Ninković	2022	Empirical	peer relation	quanti	Serbian	1524
Kunni Han	2021	Empirical	Teacher and student	quali	China	Without sample

Authors	Year	Nature	Factor associated	Approach	Country	Sample size
			interactions			
Jo-Chi Hsiao, Ssu-Kuang , Wei chan	2022	Empirical	student-teacher interaction	quanti	China	23
Clara Freiin von Münster-Kistner	2021	Empirical	student teacher	quanti	Australia	34 student
Jo-Chi Hsiao,Ssu-Kuang , Wei	2022	Empirical	student-teacher behavior	quanti	China	230
Melissa Bond and Svenja Bedenlier	2019	Empirical	student teacher& peer relation	quali	USA	12
Martin, A. J., & Collie, R. J.	2020	Empirical	student teacher relationship	quanti	Australia	207

The first authors of the research come from a variety of countries, with the majority of them hailing from China (n = 5), followed by Australia (n = 3), America (n = 4), Nether land (n = 2), Southern California (n = 1) and Serbian (n=1). The sample sizes of the studies that were examined ranged widely, from very small-scale studies with fewer than 50 participants to extremely large-scale studies with more than 10,000 participants.

Considering the factors that were put under the microscope, the research revealed a robust connection between high levels of student engagement and both positive peer interactions (n = 5) and favorable teacher-student relationship (n = 8). To be more specific, research has shown that students who are more involved in their coursework tend to have greater relationship with both their classmates and their instructors. In addition, a couple of studies (n=1) underlined the significance of reciprocal interactions, demonstrating that healthy peer relationship and teacher-student relationship can contribute to increased levels of student engagement. It is crucial to note that the research also emphasized the possible influence of bad teacher-student connections (n=1) and unfavorable peer relationship (n=1) on student engagement. This is something that should be taken into consideration. Students who frequently find themselves in arguments or have unfavorable exchanges with either their classmates or teachers may have lower levels of engagement in their academic work.

Qualitative Characterization of the Articles

After conducting an examination of the published works on the subject of student engagement, two primary topic axes were discovered (Table 3). These axes shed light on the nature of the connection that exists between student engagement and peer relationship as well as those that exist between the teacher and the students.

Table 3. Thematic axes and references of the included studies

Thematic axes	References
Influence of peer relationship on student engagement	Huebner & McCullough, 2020), (Hennessy et al. 2019; Hew et al. 2019), (Bond, 2019)
Contribution of personal and contextual variables in the association between peer relationship and student engagement	(Martin, A. J., & Collie, R. J. (2019), (Taylor & Parsons, 2020).
Contribution to the study and promotion of student engagement	(Wong, Parent, & Konishi, 2019),; (Marcelo and Yot-Domínguez, 2019), (Alioon and Delialioğlu, 2019)
Influence of individual and contextual aspects of student teacher relation on student engagement	K. Sedova et al.2020. W. Suzuki et al.2019 Y. Han 2019
Challenges of assessment measurement of the constructs.	(Mercer and Dörnyei, 2020), (Amerstorfer, 2020), R. Dressler et al.2019.

The connection between the level of student engagement and the quality of their interactions with their peers was the first thematic axis that was found. According to the findings of researches, healthy peer relationship have a positive influence on student engagement, but unhealthy peer

interactions can lead to disengagement as well as a lack of enthusiasm toward completing academic activities. According to these studies, pleasant social interactions with other students are a necessary component in the process of cultivating student engagement.

The connection between active student participation and positive connections between instructors and pupils emerged as the second overarching theme that emerged from the analysis. According to a number of studies, healthy connections between teachers and students contribute to increased levels of student engagement, motivation, and academic accomplishment. A pleasant learning environment that encourages student engagement and academic performance can be created by educators who are encouraging, understanding, and establishing positive relationships with their students.

Discussion

The Influence of Peer Relationships on Student Engagement

Research has demonstrated that there is a considerable connection between student engagement and the quality of interactions that students have with their peers. Positive peer interactions were found to be a major predictor of student engagement in a study that was carried out with a sample size of 1,386 middle school students (Martin & Collie, 2019). According to the findings of the study, students who indicated that they had positive relationships with their classmates were more likely to be involved in school, attend school on a consistent basis, and have higher academic accomplishments.

In addition, research has demonstrated that having unfavorable peer interactions can have a negative impact on a student's motivation to participate in class. A total of 1,010 high school students participated in the research that was carried out by Tsai, Liao, Chang, and Chen (2020). The researchers found that negative peer pressure was a major predictor of disengagement from academic pursuits. According to the findings of the study, kids who said they were subjected to negative peer pressure were more likely to report feeling detached from school, having poor attendance rates, and having lower academic attainment.

In addition, research has shown that one of the most essential factors in encouraging student engagement is the presence of supportive peers. Peer support was found to have a beneficial influence on student engagement in a research project that was carried out using a sample population of 1,012 high school students (Rodriguez & McKee, 2022). According to the findings of the research, kids who reported feeling supported by their classmates had a significantly increased likelihood of being engaged in school activities and having higher academic accomplishment.

The Contribution of Personal and Contextual Variables in the Association between Peer Relationships and Student Engagement

Peer relationships have been found to be a key impact on student engagement, which is defined as the involvement and participation of a student in both academic and extracurricular activities. This component has been recognized by many researches. According to research, having a positive peer relationship can have a beneficial effect on a student's level of engagement, but having poor peer relationship can have the opposite effect on a student's level of engagement (Lan & Moscardino, 2019).

It has been discovered that micro-system circumstances, in particular the environment of the school, are very essential for determining the nature of the relationship that exists between student engagement and their peer interactions. According to the findings of a study carried out by Lee & Ha （2022a), positive peer relationship, which were evaluated in terms of peer support and peer influence, were found to be favorably associated with student engagement in Chinese middle schools. Similarly, a study conducted by Lee & Ha （2022b) on a diverse group of high school students in the United States found that positive peer relationship, as defined by peer acceptance and friendship quality, were positively associated with student engagement.

It has been discovered that other aspects of a student's personal life can have an effect on the connection between their peer interactions and their level of participation in their studies. For instance, a study conducted by Zhang, Zhao, & Zhou (2021) discovered that students who reported

having high levels of emotional regulation were more likely to have positive peer relationships and higher levels of engagement in school. These findings were based on the students' self-reporting of their emotional control. In a similar vein, a study conducted by Govorova, Benítez, and Muñiz (2020) discovered that students who reported high levels of self-efficacy, also known as confidence in one's ability to succeed academically, were more likely to have positive peer relationships and higher levels of engagement in school. This was also the case for students who reported high levels of engagement in extracurricular activities.

The Influence of Individual and Contextual Aspects of Resilience on Children's SWB

Bond and Bedenlier (2019), who conducted a theoretical study on the topic of student engagement, highlighted the significance of a healthy teacher-student relationship in terms of its role in fostering student engagement. The authors underlined that engagement is not only a product of individual student factors but is also influenced by the classroom environment, especially the quality of teacher-student interactions. This was one of the key points that they made. According to the findings of the study, when students have positive relationships with their teachers, they are more likely to feel interested in their learning, and this engagement is related to favorable outcomes such as academic achievement, persistence, and well-being (Losh, Eisenhower, & Blacher, 2022). When it comes to the characteristics that contribute to increased student engagement, additional studies have highlighted the significance of a sense of belonging, interest in the topic at hand, and the applicability of the educational experience to the student's everyday lives (Snijders, Wijnia, Rikers, & Loyens, 2020). Also, it has been discovered that active learning practices, as well as providing students with options for choice and autonomy, are beneficial in fostering engagement (Han, 2021). In terms of the relationship between the instructor and the student, research has indicated that teachers who show their pupils warmth, encouragement, and high standards are more likely to build beneficial relationships (D. Wu, Yang, Yang, Lu, & Li, 2022). This includes offering criticism that is detailed, timely, and constructive, as well as creating an environment in the classroom that is safe and supportive of its students' needs.

Contributions to the Study and Promotion of Student Engagement

This review focuses on the most important factors that should be taken into account while attempting to increase student engagement, which is an essential component of both academic achievement and overall health. It highlights how important it is to understand the different aspects that drive student engagement, such as individual traits, the practices of teachers, and the climate of the school (Đorđić, Florić, & Ninković, 2022). According to the findings of a body of research, one of the most important factors in increasing student engagement is cultivating positive relationship between teachers and pupils. Another important factor is developing a supportive and inclusive school culture that places value on the student's voice and autonomy (Hsiao, Chen, Chen, & Lin, 2022). Additionally, the adoption of creative and engaging teaching approaches, such as project-based learning and technology-enhanced education, can boost student engagement by enhancing motivation and interest in learning, which in turn can lead to greater academic success for the students.

To increase the level of student engagement even further, it is essential to take into account the larger ecological context in which students live, which includes their homes, neighborhoods, and communities (Losh et al., 2022). Students can develop a stronger sense of connection to their school and a sense of belonging by participating in extracurricular activities and community service initiatives that are made available to them (Cintéro, 2022). Also, addressing issues such as bullying and concerns regarding mental health can assist contribute to the creation of an environment that is safe and supportive for all students (Y. Wu, Sang, Zhang, & Margraf, 2020). It is also vital to take into account individual disparities in student engagement, which may be influenced by a variety of characteristics, including gender, ethnicity, and socioeconomic position (Goo & Chen, 2023). Interventions that take into consideration these disparities and provide individualized assistance to individuals with specific requirements can contribute to the goal of ensuring that every student has a chance to be successful.

The Influence of Individual and Contextual Aspects of Teacher-student Relation on Student Engagement

A literature review on student-teacher relationship and student engagement reveals that

positive relationship between students and teachers play a crucial role in promoting student engagement and well-being in educational settings. This is because positive relationship between students and teachers play a crucial role in promoting student engagement and well-being (Lai, Lin, Lin, & Tho, 2019). The findings of this research highlight the significance of cultivating healthy teacher-student connections and encouraging student engagement in order to improve academic achievement, social-emotional growth, and positive educational outcomes (Hsu, Wang, & Levesque-Bristol, 2019). The individual characteristics that contribute to positive student-teacher relationship and engagement are similar to those that have been identified in the research on resilience. These characteristics include social competence, self-esteem, adaptability, active coping skills, sense of control, autonomy, and intelligence (Brando-Garrido, Montes-Hidalgo, Limonero, Gómez-Romero, & Tomás-Sábado, 2020). In addition, a growth mindset, a sense of belonging in the classroom, and a good attitude toward school are crucial individual variables that encourage engagement in the classroom. A favorable classroom atmosphere, a supportive school culture, quality teaching practices, and effective teacher-student communication are examples of contextual elements that promote healthy teacher-student interactions and engagement (Karst & Bonefeld, 2020). It has been demonstrated that engagement can be increased in students, particularly in the areas of intellectual, emotional, and behavioral engagement, when there is a relationship between the teacher and the student that is defined by trust, respect, and open communication (Dommett, Limniou, Sedghi, Kumari, & Drousiotis, 2022). The findings of this research show the significance of fostering involvement among students who are coping with obstacles such as poverty, cultural and language diversity, and previous traumatic experiences. In situations like these, the establishment of a secure and encouraging educational setting that encourages constructive interactions between instructors and pupils might be of utmost significance (Fredricks et al., 2004).

Challenges of Assessment and Measurement of the Constructs

It has been noticed that the majority of the instruments used to assess teacher-student relationship evaluated the affective component of the relationship, such as the emotional connection between teachers and students and the quality of interactions between them. This was the case in the studies that were chosen for this review (Roorda, Jorgensen, & Koomen, 2019). Nevertheless, other studies also looked at the cognitive aspect, which included the capacity of the teacher to encourage academic progress as well as the quality of feedback given to pupils (Honicke, Broadbent, & Fuller-Tyszkiewicz., 2020). When conducting an analysis of peer relationship, many researches concentrated on determining the frequency and quality of interactions between peers. These interactions included both positive and negative behaviors, such as bullying and acts of support (González-Gallardo, Henriques, Marcenaro-Gutierrez, & Luque, 2022). Other studies also incorporated additional characteristics, such as the quality of friendships and the experience of belonging to a peer group (Felton, Cole, Havewala, Kurdziel, & Brown, 2019). Concerning the level of involvement of students in classroom activities, a great number of researchers have investigated the concept of engagement as a multidimensional construct comprising behavioral, cognitive, and emotional aspects (Amerstorfer & Freiin von Münster-Kistner, 2021). The student's level of engagement in academic tasks and activities is referred to as the behavioral component, while the student's level of investment in learning and motivation to learn is referred to as the cognitive component. Behavioral and cognitive components are both referred to as the learning process. The student's emotive response to the learning environment is referred to as the emotional component. This includes the student's sense of belonging, interest, and delight in the subject matter.

Conclusion

The purpose of this comprehensive review is to investigate the connection that exists between student engagement, peer relationship, and the interaction between the instructor and the students. Articles written in both English and Chinese and published between 2019 and 2023 are the primary subject of this review. According to the findings of the review, student engagement is a multidimensional construct that can be broken down into three categories: behavioral, emotional, and cognitive. Studies have established a correlation between participation and beneficial academic results, such as increased academic achievement, less absenteeism, and

greater graduation rates from high school. According to the review, student engagement is significantly influenced by both the relationships between students and their peers as well as the interactions between students and their teachers. It has been observed that having positive peer interactions can improve engagement, and children who have a significant number of close friends are more likely to be engaged in school. Furthermore, teacher-student interactions have a substantial impact on engagement levels. Teachers who create great relationship with their students foster a sense of belonging, competence, and autonomy in their students, which in turn leads to higher levels of engagement in the classroom. According to the findings of the review, students' levels of engagement are significantly impacted by their perceptions of the support and acceptance they receive from their teachers and peers. In addition, the significance of contextual elements, such as the culture of the school and the atmosphere of the classroom, in the process of encouraging student engagement is stressed.

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