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Student engagement: a non-systematic review of its conceptualization, models and assessment instruments

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Rocío Giselle Fernández Da Lama[1]

RESUMEN

El compromiso o involucramiento de los estudiantes en actividades académicas es comúnmente investigado bajo en nombre de engagement. La relevancia que el engagement tiene en el ámbito académico se debe fundamentalmente a la relación que mantiene con otras variables, tales como motivación, aprendizaje, rendimiento académico, permanencia en el sistema, satisfacción y el bienestar académico, entre otras. El objetivo de este trabajo es presentar una revisión exhaustiva del engagement académico abordando las definiciones, modelos e instrumentos más difundidos en la actualidad. Se emplearon fuentes de información primaria y secundaria, obtenidas a partir de una búsqueda bibliográfica del término engagement en español, inglés y portugués, en distintas bases de datos de uso académico frecuente. Los resultados obtenidos permiten dar cuenta de la coexistencia de distintos abordajes sobre el engagement, repercutiendo en el desarrollo de modelos según cuáles sean las distintas dimensiones teorizadas del constructo y sus instrumentos de evaluación.

Palabras clave: Engagement estudiantil, Educación, Evaluación, Revisión teórica.

ABSTRACT

The commitment or involvement of students in academic activities is commonly investigated by the name of engagement. The relevance that engagement has in the academic field is mainly due to the relationship it maintains with other variables, such as motivation, learning, academic performance, permanence in the system, satisfaction and academic well-being, among others. The objective of this article is to present a comprehensive review of academic engagement addressing its definitions, models and instruments most widespread today. Primary and secondary information sources were used, obtained from a bibliographic search of the term engagement in Spanish, English and Portuguese, in different databases of frequent academic use. The results obtained account for the coexistence of different approaches to engagement, having an impact on the development of models according to the different theorized dimensions of the construct and its evaluation instruments.

Keywords: Student engagement, Education, Evaluation, Theoretical review.

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INTRODUCTION

The term engagement corresponds to an English word that refers to a type of commitment, legal or moral obligation that requires the presence of the individual (Oxford, 1989), which in the case of student engagement, is strictly related to the responsibilities and tasks of a student (Coates, 2005). Far from being a unified or one-dimensional concept, an academically engaged student is one who invests amounts of psychic and physical energy in different educational experiences. This leads the student to become emotionally involved with the members of the academic institution and its values, and to perceive the student life as challenging and non-stressful (Kuh, 2009; Schaufeli & Bakker, 2003). Likewise, the breadth with which this concept is used includes both academic and non-academic characteristics of the student's relationship with their learning environment (Coates, 2005).

Some authors have focused on three specific dimensions of engagement -cognitive, behavioral and emotional- (Arguedas-Negrini, 2010; Alrashidi, Phan, & Ngu, 2016; Corno, & Mandinach,1983; Fredricks, Blumenfeld, & Paris, 2004; Jimerson, Campos & Greif, 2003); while others (Schaufeli, Salanova, González-Romá, & Bakker, 2002), influenced by the line of burn out, delimited three aspects in terms of the commitment and adherence that a student presents with their environment, named as vigor, dedication and absorption.

Research on engagement in the educational field shows a sustained growth in recent years despite there being no consensus regarding the definition of the construct (Parra, 2010). Interest in this concept is manifested mainly in the analysis of its relationship with variables of great relevance in the educational field, such as academic motivation, academic performance, strengthening in the acquisition of certain content, school dropout, satisfaction and academic welfare (e.g. Díaz-Peralta, 2008; Fredricks, Blumenfeld, & Paris, 2004; Korobova & Starobin, 2015; Pietarinen, Soini, & Pyhältöc, 2014; Wehlage, Rutter, Smith, Lesko, & Fernández, 1989).

A certain problematic begins to be drawn on the basis of the relative novelty of the construct and the existence of different theoretical perspectives and its approach, as well as the presence of various instruments that assess it. This is particularly relevant in the international arena, but even more in the local field, since there are few studies that inquire about the theoretical aspects and the implications of student engagement, as well as the psychometric properties of their instruments.

From what has been exposed so far, this research work aims to address the main conceptualizations of engagement, its theoretical models and assessment instruments. The following are defined as the research questions that will structure this article:

1. What is student engagement?
2. What are the models about student engagement referenced in the investigations?
3. Which assessment instruments are used to measure student engagement?

METHODOLOGY

With the purpose of answering the research questions, a non-systematic or narrative review has been proposed as the methodology of this work (Guirao-Goris, 2015). In this sense, and as has been suggested by different researchers (Beltrán, 2005; Kannisto, Koivunen, & Välimäki, 2014), several steps were taken to minimize the existence of biases in the present review given the characteristics of this type of revisions: define the constructs to evaluate; define the research questions to structure the article; design a search equation for the research, along with the definition of the databases to be used; establish inclusion and exclusion criteria; design the corresponding flow diagram to be presented; and finally, the explanation of the results found.

As for the search equation, the terms that were used for it were in three languages: Spanish -"Involucramiento" with the descriptor "Estudiante"-, English -"Engagement" with the descriptor "Student"-, and Portuguese -"Envolvimento" and its descriptor "Estudante"-. Regarding the bibliographic search, it was carried out in the period from June 2018 to December 2019, using various databases -Scielo, EBSCO, and PsycNet-, which are commonly used in the investigative field. In addition to this, it was decided that, given the nature of the research questions to be answered, the literature search was carried out by grouping, on the one hand, theoretical studies (meta-analysis, article reviews, and books), and on the other, instrumental empirical studies (analysis of psychometric properties).

Revision process and sample collection

The task of selecting publications, based on a total of 707 studies, was carried out by reading different elements, including the title, abstracts, keywords, body of work, and references. Studies that were duplicates were discarded, as well as those that did not provide information on the subject of the work, obtaining a total sample of 62 publications (see figure 1).

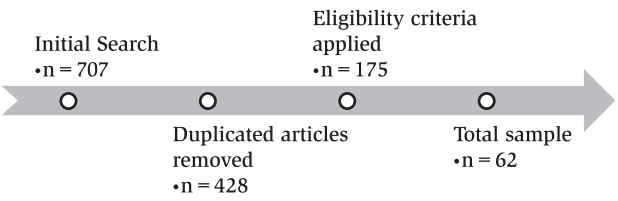

Figure 1. Flow diagram outlining the review process

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Eligibility criteria

The review was limited to studies that were in English, Spanish, or Portuguese, and that were fully available for its access, whether it was the body of the article or the chapter of the book. Due to the interest of the present investigation to carry out an exhaustive search, a criterion of exclusion was not proposed as regards the year of publication, for which both the most recent and oldest works were considered, which was from 1980 to 2019. The excluded publications were those that did not result on a substantive theoretical contribution both at the conceptual level of the engagement construct and at the level of its theoretical models. On the other hand, the empirical articles excluded were those that did not use the instrumental methodology to determine the psychometric characteristics of the assessment instruments in terms of reliability and validity criteria.

Variables and data analysis

The analysis of the information provided by the different publications collected was carried out based on the research questions initially asked. Thus, regarding the scope of the conceptual definitions of engagement, the following aspects were considered: a) mention of student aspects; b) mention of institutional aspects; c) belonging to a mayor research line. Then, the analysis of the information to describe the different theoretical models was carried out taking into account the following aspects: a) factor structure; and b) explanation of its dimensions. Finally, the analysis of the information provided by the instrumental articles was undertaken according to the following categories: a) engagement dimensions assessed; b) operationalization of the construct; and c) psychometric properties in terms of validity and reliability.

Once the total sample of publications was established, a data analysis template was prepared in the Microsoft Excel software. In this way, an analysis of the content of the articles was carried out (Martín, 1995), in order to detect the data of interest and collect them in the template.

RESULTS

What is student engagement?

The engagement in the educational field has been approached from the scientific and academic literature from two mayor lines (Trowler, 2010). The first mayor line related to the activities undertaken by the student, both inside and outside the classroom (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007; Skinner & Belmont, 1993), having this type of activities a positive impact on learning (Krause & Coates, 2008; Pintrich & De Groot, 1990; Pintrich & Schrauben, 1992; Slocum & Rhoads, 2008; Wigfield & Guthrie, 1997). Furthermore, in the origins of the term engagement as a psychological variable, it has been as its main characteristic, the amount of time dedicated by the students to his or her academic acivities (Brophy, 1983; Fisher et al., 1980; McIntyre, Copenhaver, Byrd, & Norris, 1983; Natriello, 1983).

On the other hand, within this first research line, some authors have highlighted the relevance of the role of institutions and their members in making the student feel integrated, empowered, interested by the inclusion of variation of teaching methods, and committed in the process of their formation (Arguedas-Negrini, 2010; Fredricks, Blumenfeld, & Paris, 2004; Hofkens & Ruzek, 2019; Jimerson et al., 2003; Ribeiro, Pereira, & Pedro, 2019; Shu & Liu, 2019; Slocum & Rhoads, 2008; Umbach & Wawrzynski, 2005; Zhao & Kuh, 2004; Nortvig, Petersen, & Balle, 2018). Besides, another dimension been taken into account in terms of extrinsic elements of student engagement, has been the role of the community and other institutions (McMahon & Zyngier, 2009; Pike, Smart, Kuh, & Hayek, 2006; Skinner, 2009). In this sense, it has been sought to generate a greater awareness about rising operating costs faced by educational institutions that promote student engagement, and the little assistance received by larger institutions in the face of demanding situations.

A quite prolific author in the matter, George Kuh (2009), combined these aspects and conceived the engagement as the time and effort that a student dedicated to activities that present a relationship with the desired results by the educational institution, and the institutions' own methods to induce the students to participate in those activities. This position is largely similar to that of Coates (2007) and Fredricks, Reschly, and Christenson (2019), for whom the engagement would consist of a broadly encompassing term, used to account for the academic and non-academic aspects of the student experience, within which the author includes the active and collaborative learning, participate in challenging academic activities, communication with the members of the educational institution, get involved in enriching educational activities, and feel legitimized and supported by university learning communities. Within the effective educational practices to be taken into account by the institutions, the creation of spaces for debate, capable of offering a destination for the development of creativity in students, can be named, to urge teachers to use challenging and novel teaching methodologies, make sure that the expectations are explicit, and that they are reasonable (Coates, 2010; Jankowska & Atlay, 2008; Krause, 2005).

The second mayor line that focused on student engagement presented a different development, since it started from the conceptualization of engagement as an opposite of the phenomenon of burn out (Parra, 2010; Schaufeli et al., 2002). The figure of the individual with chronic emotional fatigue, fatigue, and loss of interest in working life, as well as low personal fulfillment, began to be installed not only in the workplace, especially among professionals that deal with the service or care of people, but also in the academic scene. Schaufeli et al. (2002), defined engagement as a positive and satisfactory state of mind, characterized by high levels of vigor, dedication, and absorption, which is maintained for a long time

without being fixed to an object, event, or behavior in particular. In this way, students who are involved or committed academically present a connection with their tasks, which allows them to perceive them as challenges and, instead of considering them stressful, they connect affectively with what they are involved considering themselves capable to face whatever necessary (Schaufeli & Bakker, 2003). The main authors who contributed to the development of student engagement in this line were Schaufeli, Salanova, González-Romá, and Baker, who described three main dimensions, theoretically opposed to burnout, to describe the behavior of the student involved in academic life. known as, vigor -large amounts of energy and resilience when studying and facing difficulties-, dedication -an identification of the student is presented to the tasks he performs, feeling, in this way, excited, inspired, proud of what he does-, and absorption -the person is largely concentrated and absorbed in their work for a long time without presenting difficulties to do this- (Schaufeli et al., 2002).

What are the models about student engagement referenced in the investigations?

In consistency with the broad theoretical development from which the concept of engagement and its components in the educational field have arisen, several models can be distinguished that sought to explain it (see table 1). In this review, the models that have been taken in consideration were analyzed according to its factorial structure and the explanation of the engagement dimensions implicated.

Table 1
Chronological classification of student engagement models and its dimensions

Authors	Dimensions
Finn (1989)	a) Behavioral (participative) b) Emotional (Identification)
Schaufeli et al. (2002)	a) Vigor b) Dedication c) Absorption
Fredricks et al. (2004)	a) Behavioral b) Emotional c) Cognitive
Munns & Woodward (2006)	a) Operative b) Emotional c) Cognitive
Appleton, Christenson, Kim & Reschly (2006)	a) Academic b) Behavioral c) Psychological d) Cognitive
Skinner, Furrer, Marchand, & Kindermann (2008)	a) Behavioral b) Emotional
Reeve & Tseng (2011)	a) Behavioral b) Emotional c) Cognitive d) Agentic

Regarding the factorial structure of the models collected through the bibliographic search, those that present a three-factorial structure stand out in quantity -models of Schaufeli et al. (2002), Fredricks et al. (2004), Munns and Woodward (2006)-. Likewise, the three dimensions that are present in higher measure in the other models, such as the two-dimensional models -Finn's models (1989), Skinner et al. (2008). -, and the tetrafactorial ones -Appleton et al. (2006) and Reeve and Tseng (2011)-, are those of behavioral, cognitive, and emotional engagement. As for the analysis of each component dimension of the different models presented, the following definitions are specified:

-*Academic engagement* consists of the time spent by the student on completing tasks, credits or points obtained from the work itself (Appleton et al., 2006).

-*Agentic engagement* stands for the contribution made by students to the construction of a learning environment, receiving and improving the fluency and understanding of the lessons on the contents that are taught by the teacher, which they called agentic engagement. The student's agent role not only reacts to academic tasks provided by the teacher, but also modifies them, enriches them, optimizes them or makes them more interesting.

-*Behavioral engagement* has been classified in three positive types of behaviors, those are, -adhering to class norms, following the rules given, and avoiding involvement in unruly and transgressions acts-, participate in academic and learning tasks-give arguments that contribute to discussions or debates, ask questions, pay attention, concentrate, be persistent and make an effort-, and get involved in activities related to academics and non-academic sphere-participate in the direction of the institution, perform sports- (Appleton et al., 2006; Finn 1989; Fredricks et al., 2004; Reeve & Tseng, 2011).These indicators in a student´s activity are a representation of the effort made by the student and his persistence in academic tasks, including also aspects like attention and concentration (Skinner et al., 2008).

-*Cognitive engagement* has been conceptualized taking into account various aspects, such as involvement in learning tasks -flexibility in solving problems, preference for hard work, having a positive way to deal with failures -, the psychological skills that the student has and that allow him/her to understand the academic content and master the skills required to do it - intrinsic motivation, self-regulated learning, being strategic when studying, considering school tasks for future purposes, developing a sense of autonomy and having personal goals (Appleton et al., 2006; Fredricks et al., 2004; Munns & Woodward, 2006; Reeve & Tseng, 2011).

-*Emotional engagement* conglomerates psychological, motivational, and affective aspects, which, in a general way, refer to the positive and negative emotional reactions experienced by students towards teachers, classmates, academic tasks, and the educational institution in general. Likewise, the indicators that are described as protagonists in students involved are the presence of interest and happiness, the lack of boredom, anxiety and sadness, and

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the feelings of belonging and identification with the institution and its values (Fredricks et al., 2004; Jeremy Finn, 1989, 1993; Munns & Woodward, 2006; Reeve & Tseng, 2011). Furthermore, emotional engagement concentrated those emotional states, such as enthusiasm, interest, and enjoyment, which should have the effect of capturing the student and making him/her stay involved in class (Skinner et al., 2008).

-*Operative engagement* is the renamed term for behavioral engagement in the model of Munns and Woodward (2006). The reasons alleged by the authors for this action are that the concept of behavioral engagement is inappropriate, since it only emphasizes how students seek to meet the academic demands of their teachers and the rest of the institution, and spend time on their academic tasks. Therefore, operational engagement would result in a more appropriate dimension to understand the nature of student´s involvement, since the requirement of adequate methods to operate on the academic activity and getting to develop a level of self-assessment on their own behavior is a more suitable measure of relevant doing in class (Munns & Woodward, 2006).

-*Psychological engagement* includes aspects such as feelings of identification and belonging, a good relationship with teachers and other students (Appleton et al., 2006).

A classification on engagement that differs greatly from those presented so far corresponds to that of Schaufeli et al. (2002). The authors started from the line of burn out, conceiving engagement as the involvement or psychological bond product of a positive psychological state experienced by a subject in their academic environment. In this model, three dimensions of engagement are distinguished:

-*Vigor* is related to high levels of resilience and energy available to the student when studying, and persistence when overcoming obstacles.

-*Dedication* is characterized by the students' feelings of pride, enthusiasm for their academic tasks, as well as considers them significant and challenging.

-*Absorption* represents total and complete concentration and immersion in a task, together with the feeling that time flies.

Which assessment instruments are used to measure student engagement?

In this section, a total of 17 instruments that assess engagement in students of different educational levels have been analyzed. The analysis was carried out considering the dimensions of the construct that are assessed, the operationalization of the engagement performed, and the psychometric properties of the instruments.

Regarding the different dimensions of the engagement assessed, a distribution of the sample can be presented as followed:

-*Instruments that assess academic engagement:* No instruments have been reported that evaluate this dimension.

-*Instruments that assess agentic engagement:* Agentic Engagement Scale (AES; Reeve, 2013), and Student Engagement in School-Four-Dimensional Scale (SES-4DS; Veiga, 2013).

-*Instruments that assess behavioral engagement:* Engagement VS Disaffection with Learning (EDL; Skinner et al., 2008), Academic Engagement Scale for Grade School Students (AES-GS; Tinio, 2009), High School Survey of Student Engagement (HSSSE; Center for Evaluation and Educational Policy, Indiana University, 2007), School Engagement Measure (SEM; Wang, Willet, & Eccles, 2011), Behavioral Engagement Questionnaire (BEQ; Miserandino, 1996), Student Engagement in Mathematics Classroom Scale (SEMCS; Kong, Wong, & Lam, 2003), Motivation and Engagement Scale (MES; Martin, 2009), and Student Engagement in School-Four-Dimensional Scale (SES-4DS; Veiga, 2013).

-*Instruments that assess cognitive engagement:* Student Engagement Instrument (SEI; Appleton et al., 2006), Academic Engagement Scale for Grade School Students (AES-GS; Tinio, 2009), Motivation and Engagement Scale (MES; Martin, 2009); Student Engagement in School-Four-Dimensional Scale (SES-4DS; Veiga, 2013), High School Survey of Student Engagement (HSSSE; Center For Evaluation and Educational Policy, Indiana University, 2007), Student Engagement in Mathematics Classroom Scale (SEMCS; Kong, Wong, & Lam, 2003), The subscale Cognitive Strategies of the Approaches to Learning Instrument (Greene, Miller, Crowson, Duke, & Akey, 2004), Metacognitive Strategies Questionnaire (MSQ; Wolters, 2004), Student Perceptions of Classroom Knowledge-Building Scale (SPOCK; Shell & Husman, 2008), Student Engagement Questionnaire (SEQ; Kember & Leung, 2009), and Cognitive Engagement Scale from the Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, Smith, García & McKeachie, 1991).

-*Instruments that assess emotional engagement:* Engagement VS Disaffection with Learning (EDL; Skinner et al., 2008), Academic Engagement Scale for Grade School Students (AES-GS; Tinio, 2009), High School Survey of Student Engagement (HSSSE; Center for Evaluation and Educational Policy, Indiana University, 2007), Student Engagement in Mathematics Classroom Scale (SEMCS; Kong, Wong, & Lam, 2003), Motivation and Engagement Scale (MES; Martin, 2009), Student Engagement in School-Four-Dimensional Scale (SES-4DS; Veiga, 2013), and School Engagement Measure (SEM; Wang et al., 2011).

-*Operative engagement*: the REAL framework self-Assessment (Munns & Woodward, 2006).

-*Instruments that assess psychological engagement:* Student Engagement Instrument (SEI; Appleton et al., 2006).

-*Instruments that assess vigor, dedication and absorption engagement:* Utrecht Work Engagement Scale for Students (UWESS; Schaufeli et al., 2002).

Focusing on the way in which engagement has been operationalized, it can be said that some instruments have a high heterogeneity and quantity of dimensions to evaluate the construct, which produces certain difficulties in comparing them between each other. This variety is

then presented in the measurement according to engagement dimensions:

-*Academic engagement*: No instruments have been reported that evaluate this dimension.

-*Agentic engagement*: the two instruments that evaluate this dimension do so through relatively similar items, on the one hand, the Student Engagement in School-Four-Dimensional Scale (SES-4DS; Veiga, 2013), with a total of 20 items employs 5 of them to evaluate the agentic engagement through items describing the actions of engaged student in class (e.g. "*I make suggestions to teacher about how to improve classes"*, or *"During classes, I put questions to the teachers"*). For its part, the Agentic Engagement Scale (AES; Reeve, 2013), which also has 5 items to assess this dimension, consists of statements of relatively similar actions (e.g. *"During this class, I express my preferences and opinions"* and *"During class, I ask questions to help me learn"*).

-*Behavioral engagement*: the instruments that evaluate this dimension are made up of diverse indicators such as homework assignments at home (e.g. *"How much time do you put into homework each week?"*), the attention presented in the classroom (e.g. *"How often do you really pay attention to the class work?"* and *"How often does your mind wander in each of these classes?"*). In addition, other scales are composed of indicators such as persistence (e.g. *"If a problem is really hard, I keep working at it"*), participation (e.g. *"I participate in class discussions"*). Likewise, the negative form of behavioral engagement is assessed (e.g. *"I never seem to pay attention when we start a new subject"*; *"When I can't solve a problem right away, I just give up", "I deliberately disturb classes"*).

-*Cognitive engagement*: The evaluation of this dimension presents a great heterogeneity, since the scales collected demonstrate a large number and diversity of subscales. For example, the Student Engagement Questionnaire (SEQ; Kember & Leung, 2009) is composed of 17 sub-scales to measure cognitive engagement –critical thinking (e.g. *"I have developed my ability to make judgments about alternative perspectives"*), creative thinking (e.g. "*I have been encouraged to use my own initiative"*), self-managed learning (e.g. *"I feel that I can take responsibility for my own learning"*), interpersonal skills (e.g. *"I have learnt to become an effective team or group member"*), among others-. While other scales assess different student´s strategies, such is the case of the subscale Cognitive Strategies of the Approaches to Learning Instrument (Greene et al., 2004) and the Metacognitive Strategies Questionnaire (Wolters, 2004), which They have items about organizational strategies, metacognitive self-regulation, and peer learning, among other strategies for studying.

-*Emotional engagement:* the instruments that evaluate this dimension are characterized by contemplating emotional/affective aspects experienced by the student in the academic setting, being positive emotions such as well-being (e.g. *"When I´m in class, I feel good"*), identification with the values of the institution (e.g. *"I feel a member of my school"*), feel satisfied with the educational level they receive (e.g. *"I believe I´m receiving a good education in my school"*), the relationship with peers and teachers (e.g. *" Teachers in my school are honest with their students"*), or negative emotions like loneliness (e.g. *"My school is a place where I feel alone"*), boredom (e.g. *"When I'm doing work in this class, I feel bored"*).

-*Operative engagement*: The instrument that evaluates this dimension has been designed under the premise of self-evaluation by students, who must answer questions about the following domains "Thinking about achievement", "Looking for evidence", "Working with other people", "Overcoming barriers", and" Reframing the task" (REAL framework self-Assessment; Munns & Woodward, 2006).

-*Psychological engagement*: the Student Engagement Instrument (SEI; Appleton et al., 2006) assess this dimension of engagement according to the following indicators: Teacher-Student Relationships (e.g. *"Other students here like the way I am"*), Peer support for Learning (e.g. *"Student here respect what I have to say"*), and Family support (e.g. *"When I have problems at school my family / guardian (s) are willing to help me"*). The scale presents general hypothetical situations within the student scenario, as well as statements that seek to assess the degree of student's self-perception of their psychological engagement.

-*Vigor*: the Utrecht Work Engagement Scale for Students (UWESS; Schaufeli et al., 2002) evaluates this dimension by using items focused on the academic setting that indicate vitality (e.g. *"I feel strong and vigorous when I'm studying or going to class"*), perseverance (e.g. *"As far as my studies are concerned I always persevere, even when things do not go well"*), and desire (e.g. *"When I get up in the morning, I feel like going to class"*).

-*Dedication*: this dimension of engagement is assessed by the Utrecht Work Engagement Scale for Students (UWESS; Schaufeli et al., 2002) considering aspects such as identification towards the action of studying itself (e.g. *"I am proud of my studies"*), find usefulness in what is studied (e.g. *"I find my studies full of meaning and purpose"*), and enthusiasm (e.g. *"My study inspires me"*).

-*Absorption*: the indicators that measure this dimension consist of a great investment in the process of studying in terms of concentration (e.g. *"It is difficult to detach myself from my studies"*) and experience an optimal mental state towards the task (e.g. *"Time flies when I am studying"*).

The analysis of the psychometric properties of the instruments shows evidence of internal validity through the methodology of factor analysis in most of the instruments. Other types of validity evidence were also present, such as evidence of criterion and predictive validity (BEQ; Miserandino, 1995; MES; Martin, 2009; MSLQ; Pintrich et al., 1991; Metacognitive Strategies Questionnaire; Wolters, 2004; SEQ; Kember & Leung, 2009), and convergent validity (AES-GS; Tinio, 2009).

Regarding the analysis of the psychometric properties related to reliability, the most prevalent type of methodology was the calculation of Cronbach's coefficient to

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estimate the internal consistency of the scale. Thus, the internal consistency of the instruments varied from a range of .70 to .89, an interval that indicates internal consistency between adequate and good. In some cases, internal consistency was above .90, which is high (SEMCS; Kong, Wong, & Lam, 2003), while in the case of Motivation and Engagement Scale (MES; Martin, 2009), the internal consistency reported was .61 for one of its scales, which is weak.

DISCUSSION AND CONCLUSIONS

The present article aimed to address the main conceptualizations of engagement, its theoretical models and assessment instruments through a non-systematic review methodology. Furthermore, the present revision has exposed the complexity in the understanding of the phenomenon of engagement. This complexity that can be noticeable by reviewing its conceptualization and components that happen to differ among different authors, the theoretical models and the assessment instruments studied.

Taking under consideration the results exposed about the main models that dealt with student engagement, it can be highlighted the juxtaposition between the emotional and psychological dimensions, both of which involve emotional experiences and identifying aspects. Something similar occurs in academic engagement, which refers to the operational conception of engagement that is the time spent by the student in their homework, an aspect that is included in behavioral engagement.

In concern of the analysis of the assessment instruments, It can be stressed their heterogeneity and diversity in terms of number of scales. It is reported that in some models where a certain number of dimensions is delimited, it does not always correspond to the number of scales in the corresponding instrument, such is the case of the Student Participation Instrument (SEI; Appleton et al., 2006), which only evaluates two of the dimensions of its model, and the case of the Agent Commitment Scale (AES; Reeve, 2013), which assess only the agentic engagement but its model comprises three more dimensions.

As limitations of the present investigation, those referring to the type of methodology used for non-systematic review can be named. In this sense, the focus of the review proved to be not very specific, which was evidenced in the breadth of questions asked to structure the article. In addition, both the analysis of the information collected and its synthesis were conducted qualitatively, which increases the risk of biases and inaccuracies of the author. Lastly, the quantity of search engines used for the bibliographic search of the information is relatively low, since this directly affects the heterogeneity of the sample and the exhibition scope of this article.

It is expected that the information presented in this article turns into some useful theoretical background that can be considered by teachers and other professionals in the field, in order to improve the teaching-learning processes in different levels of education.

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