

Dropout in higher education and Vincent Tinto's models: bibliographical research^{*1}

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Abstract

Dropout is a universal problem. Its occurrence encompasses public and private institutions around the world. The loss of students represents the idleness of human and material resources in higher education institutions, while its causes are multiple. This article aims to explain dropout in higher education based on bibliographical research on the models developed by Vincent Tinto. More specifically, we sought to describe the variables that favor the occurrence of dropout, demonstrate the potentialities and limitations of the Student Integration Theory and compare it with the motivation and persistence/dropout model produced by this author. Methodologically, this is a qualitative study, considered as an exploratory and bibliographical research. Its corpus included classic and contemporary texts, relating their differences and similarities on the topic of dropout. The results show the changes undergone by the SIT and the change in the focus given by Tinto in his latest research; whose emphasis has shifted to students instead of institutions. This implied a greater focus on the social relationships built between individuals in the different spaces they frequent at the university.

Keywords

Dropout – Student integration model – Motivation and persistence/dropout model.

^{*} English version by Arlei Rocha de Carvalho. The authors take full responsibility for the translation of the text, including titles of books/articles and the quotations originally published in Portuguese

1- Data availability: The entire dataset supporting the findings of this study was published in the article itself.

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Introduction

Dropout rates in higher education are a global problem. This phenomenon occurs across all courses, institutions, and education systems around the world. The democratization of higher education became a central concern in the 1960s. Access for young people from the middle and working classes made it possible to acquire cultural capital and favored research on inequalities in universities (Dandurand; Ollivier, 1991). In Brazil, the dropout rate is similar to that of France, and this similarity comes from the way the educational system and access opportunities to HEIs were created.

The 14^a Edição do Mapa do Ensino Superior no Brasil published by the Sindicato das Entidades Mantenedoras de Estabelecimentos de Ensino Superior no estado de São Paulo (SEMESP), released in 2024, shows that in-person courses in the public network had an average dropout rate of 18%. In the private network, the average dropout rate was close to 30%. In the same period, Open and Distance Learning courses (ODL) had averages of 27% and 35%, respectively, in public and private schools. As a result, between 2014 and 2022, the dropout rate in Brazil was 31%.

Curbing student dropout rates before completing their courses became a target for the Brazilian government in the 1970s. Cacete (2014) states that the demand for higher education in the national context resulted from slow industrialization, responsible for the rural exodus and the demand for specialized labor. For the author, the southeast region, specifically São Paulo and Rio de Janeiro, led the search for professionals with higher education. This shows that this segment of education became strategic due to the enthusiasm for economic development.

Between the 1940s and 1970s, there was active participation by the student movement in the defense of public education. The mobilization of these individuals aimed to curb the participation of private enterprise in the public sector, as well as to unify schools with isolated courses, replacing them with the university model. Although these efforts were valuable, the Lei de Diretrizes e Bases (LDB) enacted in 1961 did not change the academic format. The democratic perspective and investment in postgraduate studies were only targeted by the government in 1968 (Martins, 2002). Abroad, there was a state crisis caused by fiscal problems and distrust regarding the viability of the welfare state. These two factors affect education in all its segments. Economically, schools begin to provide specialized labor capable of restructuring the financial deficits caused by the crisis. In the case of the welfare state, there is concern about the democratization of access opportunities and the state's responsibility in this matter. A tension arises between individual/collective aspirations and skepticism toward egalitarianism. (Dandurand; Ollivier, 1991).

Regarding dropout in Brazil, the end of the 20th century brought a period of greater concern for higher education. An important event was the forum of pro-rectors held by Andifes⁵ to address this phenomenon. From this event, the Special Commission on Evasion was established, aimed at public universities, in the 1995. The function of the group

5 - The Associação Nacional dos Dirigentes das Instituições Federais de Ensino Superior (ANDIFES) was created in 1989 and is the official interlocutor of public institutions with the federal government and other entities that make up the academic community (associations of teachers, technical-administrative staff, students and society in its broadest sense).

was to conceptualize dropout and analyze its forms, consequences, and precautions. An important milestone made by the commission was the definition of dropout as the student leaving a course without finishing it (ANDIFES, 1997).

Maciel, Cunha Júnior, and Lima (2019) show that, over the course of four decades (1977 to 2017), there was a greater focus on understanding dropout than on permanence. In both national and international literature, one of the researchers who stood out in the study of dropout was Vincent Tinto. Quantitatively, his works have been cited in more than 700 studies in different areas of knowledge (Magalhães, 2013). His contributions date back to 1970, based on the interpretation of the interaction between students and HEIs based on Émile Durkheim's theory of suicide (Franco *et al.*, 2021).

General and specific objectives

The general objective proposed by this research is to explain dropout in higher education based on bibliographical research on the models developed by Vincent Tinto. The specific objectives are: I) to describe the variables that favor the occurrence of dropout; II) to demonstrate the potentialities and limitations of the Student Integration Theory and; III) to compare it with the motivation and persistence/dropout model produced by this author.

Methodological aspects: qualitative, exploratory and bibliographic research

Qualitative research is research that goes beyond the numerical description of phenomena. Its interest is in the meanings, motivations, aspirations, beliefs, values and attitudes of the subjects. These qualities make up a space of social reality in which human beings seek to interpret what happens around them (Minayo, 2007). Exploratory research, on the other hand, delves deeper into a problem, with the purpose of improving ideas about that topic (Gil, 2002). Methodologically, this is a type of study that contributes to the appropriation of the repertoire on the research problem (Piovesan; Temporini, 1995).

According to Lakatos and Marconi (1992), bibliographic research is a formal procedure that uses systematic, controlled and critical reflection to find information capable of reducing the gaps present in an area of knowledge. This type of study uses secondary data sources, that is, documents from sources that have already been made available by other researchers or institutes. It is expected that by having contact with this information it will be possible to bring the scientist closer to his/her topic of interest, bringing about a dialogue between the global and the local; and at the same time, between the classical and the contemporary.

Operationally, bibliographic research can have eight or nine stages depending on the framework adopted. However, a rigid model for this type of study is not usual, as the authors follow different paths until they reach the analysis of the materials and writing of the texts (Gil, 2002). The procedures adopted in carrying out this study considered the criteria of Lakatos (2005), which consist of: a) choice of the topic; b) preparation

of the work plan; c) identification; d) location; e) compilation; f) filing; g) analysis and interpretation; and h) writing.

Vincent Tinto's contributions to understanding dropout rates in higher education

Entry into higher education requires skills that are distinct from those in basic education. This can be seen, for example, in the production and interpretation of academic texts. Even if students are proficient in reading and writing, scientific works are only available during basic education. When they reach undergraduate school and come across classic works, for example, students experience a limbo. On one hand, they deal with unique work; on the other, there is a professor who is an expert in that area. Given this, students must achieve a critical interpretation of the material, even if it differs from their understanding of the subject (Marinho, 2010).

The difficulties experienced in the first year of the course were the subject of Vincent Tinto's studies. His research has been recognized among scholars in the field since the 1970s. One of his contributions was the interpretation of the interaction between students and universities based on Émile Durkheim's theory of suicide (Franco *et al.*, 2021). Tinto uses the concept of social cohesion to argue that university life is based on relationships of reciprocity and group belonging. When these bonds are weakened, the individual tends to abandon the undergraduate course, something similar to the state of anomie.

An important observation was made by Espinosa *et al.* (2023), who affirm the difficulty of appropriating the theories produced by Tinto for a context different from the North American reality. On the other hand, Paula (2021) points out that the studies produced in Brazil using Tinto's theory made adaptations to suit the country's context, especially to the detriment of social markers and the different forms of inequalities that structure the local scenario. The massification of higher education was responsible for the adaptations in research and allowed its appropriation by Brazilian researchers.

Institutionally, two notions were attributed by universities. The idea of "success" and "persistence" allows evasion to be understood based on interactions, values and social structure. Furthermore, the proposed model attests that dropout is caused by interactions, to a greater or lesser extent, between the individual, society and institution (Tinto, 1975). Completing university is beyond the individual scope, suggesting that access is insufficient to guarantee the title (Duarte Filho; Prestes, 2013). Hence, the importance of academic and social support before the decision to drop out (Franco *et al.*, 2021).

The social and academic integration of students at university

The model formulated by Tinto (1975) remodels Durkheim's theory of suicide with a locus in education. This means that subjects exert energy to maximize their results, without increasing costs. When the benefits exceed the investments made, the student tends to continue their studies (Franco *et al.*, 2021). Using these issues, the Student Integration

Theory (SIT), developed by Vincent Tinto, is a paradigmatic model in the literature due to the dialogue between several variables that explain the causes of dropout (Massi, 2013).

Its focus is on academic and social integration into the university environment, considering the individual attributes that precede admission to higher education (Magalhães, 2013). SIT attempts to overcome the individual issues found in the students' background. Sex, ethnicity, place of residence, social status and experiences in basic education are part of each student's history, making them multiple beings. These variables are related to academic motivations and future expectations, and the chance of dropping out is lower when there is harmony between each one (Tinto, 1975).

Misalignment between these factors increases dropout likelihood, as students fail to identify with the academic community. Integration works as a "fit" between individual capacities and motivations with the academic-social aspects of the institution. A critical aspect of this relationship is the quality of interactions with university members. The welcoming of students favors their continuity in studies, since, when they arrive at university, these individuals give up the groups they were part of, attitudes and values that were common before graduation (Massi, 2015).

After these explanations, it is possible to note that dropout results from the social relationships established at university and their ineffectiveness is due to adaptation, satisfaction and student integration (Massi, 2015; Oliveira, 2017). Tinto argues that interactions are fundamental, as grades and intellectual performance demonstrate. These elements are a reward for personal and academic development at university (Magalhães, 2013). It is important to emphasize that all the elements mentioned are presented in an interactive manner, that is, it is impossible for just one to favor staying in or leaving the course.

The student integration model proposed by Vincent Tinto

The innovation presented by Tinto's Student Integration Theory results from overcoming the descriptions of the characteristics made by research up to that point. Furthermore, the explanations did not treat students and HEIs in an interactive way, meaning that the lists of variables created were capable of explaining isolated situations, rather than a broader panorama (Franco *et al.*, 2021). This theory presented advances in the way dropout was read. His theory focused on institutional actions capable of changing the situation of students prone to dropping out (Tinto, 2012).

Measures such as monitoring student expectations, socio-emotional and material support, assessments with feedback and increasing involvement in activities promoted by HEIs bring students to the center of the debate on dropout. Tinto (2012) attests those studies focused only on higher education institutions lead to the loss of subjective issues related to the subjects. As a result, dropout is reduced to a failure of the university or a narrative based on "failure". Socializing in the institution's spaces is a place of important relationships for the socialization of its actors.

According to Franco *et al.* (2021), a university has its own structures that relate to the agents who live in its spaces. Taking this issue into consideration, Massi (2015), revisiting Tinto (1975), states that the university is a microcosm, formed by two systems,

one of which is social and the other is academic. The social system includes everything that concerns the daily life and demands of students outside the university. It is possible to include housing, cafeterias, meeting points, professors, and staff in this domain.

In the academic system, there is all formal education and the university's physical facilities, such as classrooms and laboratories. This is where the staff and professors involved in undergraduate programs are located (Massi, 2015). Magalhães (2013) emphasizes that Tinto's model (1975) focuses on the academic and social interaction of students and uses a range of characteristics that affect the way commitments and expectations are conducted. These commitments and expectations are divided into personal goals and a sense of belonging, marked by responsibility for academic commitments.

By seeing how all the attributes previously discussed are connected, it is possible to notice that the Student Integration Theory is an interactional model. This can be said because the actions of the subjects are not restricted to the internal space of the institution, nor is it a mere cut between their date of admission and graduation (Massi, 2015). Thus, dropout is understood as a longitudinal process, which links the individual to the social and academic systems. The greater or lesser involvement of students with the course can increase or reduce their focus on obtaining the diploma (Magalhães, 2013).

In his thesis, Lima Júnior (2013) compares Tinto to Bernard Lahire and Pierre Bourdieu. For him, SIT seeks the meaning of students' actions in their academic daily lives and its measurement is given by the beliefs and actions that go beyond their position in the social structure and the capital they possess. At university, students acquire dispositions that can contribute to their permanence or not. Based on this, Barreiros (2017) states that Tinto recognizes the individual as being endowed with group, institutional and field experiences that are distinct and a consequence of living in society, approaching Lahire.

Dispositions are intra-individual variations that affect behaviors, attitudes and practices throughout life, as well as in the places where people live. There is an equivalence between exposure to socialization contexts and individuals with the greatest influence on the lives of these subjects (Barreiros, 2017). Basically, undergraduate students coexist in different modalities and frameworks of socialization and carry multiple dispositions acquired in these spaces of social interaction. Thus, it is possible to understand them as an intersection between their individuality and infinite "selves" (Assis, 2021).

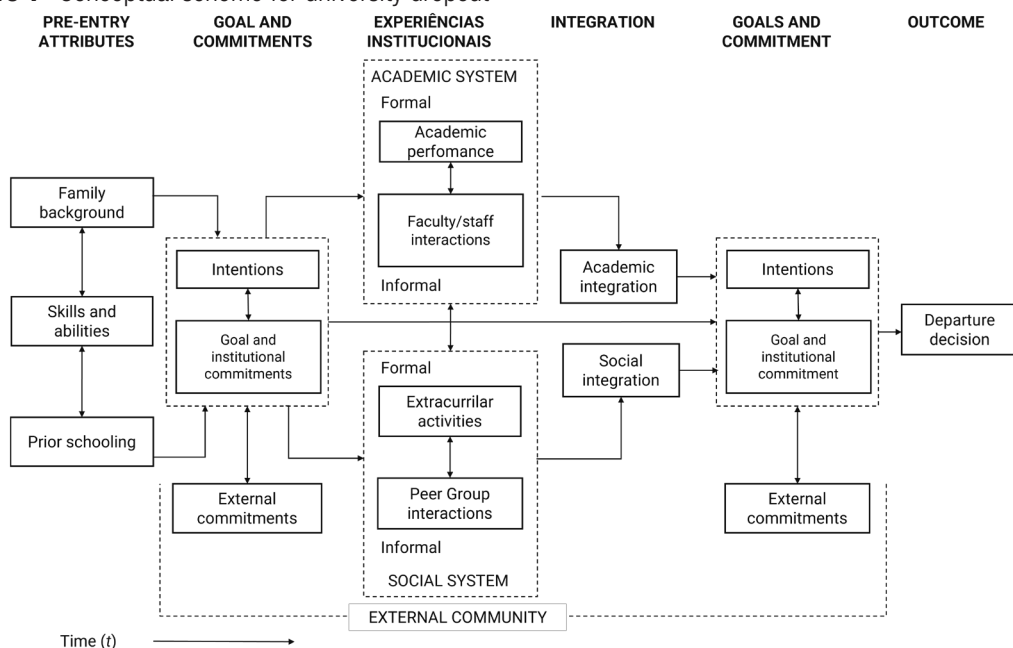
To understand the internalization of customs and habits external to the subject, the Bourdieuan concept of habitus explains the coercion exerted on individual actions provided by that which is outside of each person. For Bourdieu, the school is responsible for maintaining customs, legitimizing culture and supporting state rules. This indicates that it is an interlocutor of what is considered legal or illegal. Social structures, in this case, are capable of coercing individuals and making them perform according to the habitus (Barreiros, 2017).

During undergraduate studies, habitus is acquired during affiliation with the academic environment, when the rules are naturalized by students (Coulon, 2017). Each institution has its own rules that make its routine unique, imbuing its community with signs, symbols, and meanings. It is based on these aspects that Tinto points out the three principles of effective retention that are capable of curbing dropout rates in HEIs. According to the author, it is up to institutions to commit to the well-being of students;

to be concerned with the education of all, without exception; and to support student integration (Lima Júnior, 2013). Two important concepts of SIT are academic integration and social integration. The first is measured by grade performance and intellectual development. Grades serve as a reward for involvement in course activities, especially those that occur in the classroom. The second deals with formal and informal relationships with other actors that make up the HEI. Its measurement comes from the congruence between students and the social environment of the university (Franco *et al.*, 2021). The initial version of this theory had fewer variables and the systems (academic and social) were less complex.

The revision made in 1975 (Figure 1) included commitments external to commitments and goals. The input attributes – family background, individual attributes and academic history – were correlated, as well as social and academic integrations; external community; and time in the model. Before the changes, the SIT was less clear. The changes demonstrated that the interactions produced in the academic and social systems made the model more dynamic and more dependent on the daily relationships that occurred at the university.

Figure 1- Conceptual scheme for university dropout



Source: Massi (2015, p. 979).

The diagram in Figure 1 is read horizontally from left to right. Initially, students arrive at higher education with their family background, academic history, skills and abilities acquired in these environments. In addition to these variables; gender, race and expertise also make up the variables that are part of life experience prior to university. Students also bring values and expectations, academic and social experiences to their

undergraduate studies that directly or indirectly interfere in the way they deal with their undergraduate studies (Tinto, 1975).

Over time, students have their intentions, goals and institutional commitments affected by life outside of university. Endowed with all these attributes, institutional experiences are expressed both formally and informally. In the academic system, formal relationships are those linked to performance in disciplines. Contact with peers, professors and administrative sectors describe students' informal experiences. Franco *et al.* (2021) point out that interactions in the academic and social systems redefine institutional interactions, goals and commitments.

Another possible interpretation of Vincent Tinto's interactionist model

Tinto's model can be interpreted from another perspective, in addition to the interactionist one. This possibility was presented by Lima Júnior (2013), who reads the SIT from the dispositional perspective. Returning to Lahire, he states that dispositions serve to reconstruct reality, allowing the interpretation of the behaviors, practices and opinions of the subjects (Massi, 2015). With this, there is a diversification of practices and other elements that indicate the existence of dispositions. For this, it is necessary that there are relationships and, subsequently, that the competencies determine the trajectory of the students (Lima Júnior, 2013).

Moving away from the Bourdieusian interpretation, for Lahire, dispositions are specific, that is, they cannot serve broadly and to explain the entirety of the students' lives. This individual heritage of dispositions presents itself as a response to the stimuli received in the environments in which people live. In the case of evasion, more specifically in Tinto's theory, they must be observed in the daily life of social and academic systems (Massi, 2015). Therefore, the dispositions are perceived empirically, and can describe the actions and beliefs of the subjects (Lima Júnior, 2013).

Due to the dynamic nature of university life, it is possible to affirm that the dispositions can be updated or discarded according to the interactions experienced (Massi, 2015). At the same time, HEIs also rely on dispositions that are produced from the strength of the actors who are able to share them with others. It can be said that these individuals use their social positions to disseminate these dispositions, imposing them on a certain group that is capable of producing a relationship between the dominant and the dominated, or between dominant and dominated dispositions (Lima Júnior, 2013).

Lima Júnior (2013) draws attention to the fact that the various instances that make up an institution do not have the same status. This division concerns the functional framework of the HEI, since its areas lack specific demands, which are like smaller communities that do not always have a dominant disposition in relation to the others. An example would be the tensions between undergraduate and graduate degrees; older and younger professors; students with high and low grades. These groups have greater or lesser dispositions that favor the hierarchy of their communities.

The way this happens causes individuals to incorporate institutional dispositions into their routine. This situation is evident from the selection process to the teaching-

learning that occurs in departments and classrooms. The validation of these dispositions becomes evident when those who were unable to incorporate them abandon higher education (Lima Júnior, 2013). This is a process in which institutions bring into their interior those they intend to exclude (Nogueira; Nogueira, 2015).

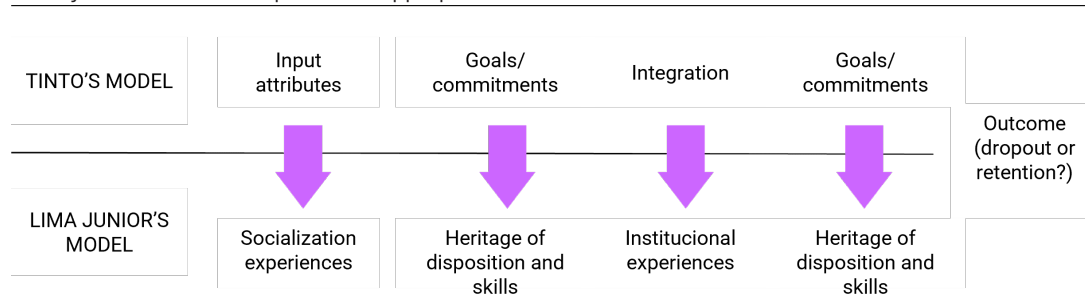
Another observation made by Lima Júnior (2013) refers to the space of institutions. For the author, each HEI occupies a space of competition and collaboration, something similar to a network. In a broader sense, it is possible to relate this dynamic to the logic of the educational quasi-market, which describes the competitiveness between families without the involvement of financial assets, but using different types of capital as currency of exchange. Social, cultural capital and symbolic assets intensify disputes. This creates a kind of ethos that favors the choice or exclusion of an institution (Costa; Koslinski, 2012).

Including the discussion on educational quasi-markets is relevant because it clarifies the way in which the school offers the choice for an institution. Establishing a parallel with higher education and dropout rates at this level of education; the choice for a course or HEI, especially in contexts of mass access opportunities, as happened in Brazil, resembles a menu in which the offers require HEIs to adapt to the market. This occurs through the dissemination of their qualities and/or recognition to potential entrants (Costa; Koslinski, 2012).

The alignment between individual and institutional dispositions indicates the reasons for continuing or not in higher education (Massi, 2015). For Lima Júnior (2013), students' intentions function as dispositions to believe and are incorporated throughout their primary and/or secondary socialization. Their commitment to the course, on the other hand, configures a disposition to act. The possession of these dispositions functions as a strategy for participation in the school market, that is, to obtain the best positions in a network of institutions and higher education courses (Lima Júnior, 2013; Massi, 2015).

In Figure 2, Massi (2015) presents the changes made between Vincent Tinto's Student Integration Theory model and the dispensationalist proposal developed by Lima Júnior (2013). The author states that the main changes only affect the variables listed in the figure, with the other parts of the SIT being maintained. Lima Júnior (2013) warns that the institutional assets of dispositions are similar to the Bourdieu habitus, being an institutional disposition related to the quality of teachers and the prestige produced beyond the confines of academia.

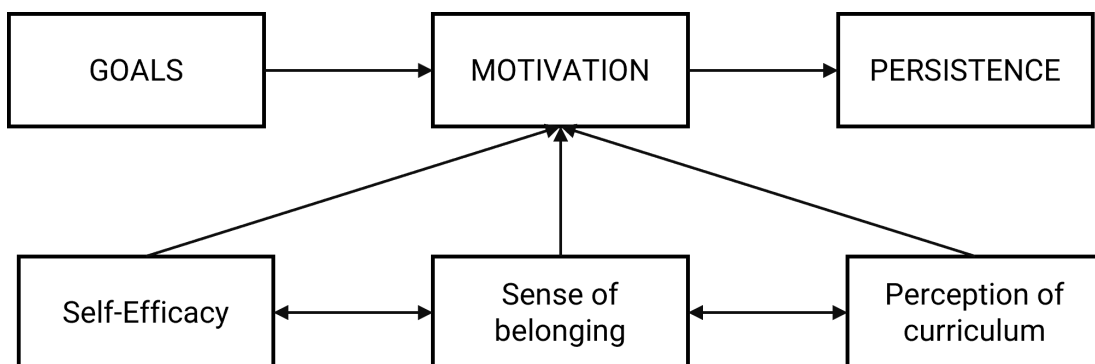
Figure 2- Comparative diagram, proposed by Lima Júnior, between Vincent Tinto's Student Integration Theory model and the dispositional appropriation of Tinto's model



Source: Massi (2015, p. 981).

Lima Júnior's (2013) proposal focuses on the interaction between students and institutions. In undergraduate studies, the set of dispositions and skills of students changes according to their experiences inside and outside the classroom. The interaction between the set of skills and dispositions and institutional dispositions shows the institutional causes of dropout. This representation of the SIT seeks to understand how students act and, at the same time, shows the dispositions present in the university routine that facilitate dropping out of the course. The diagram made by Lima Júnior (2013) is shown in Figure 3.

Figure 3- Representation of the dispositional appropriation of Tinto's model



Source: Lima Júnior (2013, p. 214).

Integration models highlight two premises related to dropout: 1) students do not want to be retained; and 2) persistence in higher education is one of the goals of undergraduates. Although these issues may seem similar at first glance, there is a distinction between them based on the underlying interest behind each one. From an institutional perspective, the goal is to increase the number of graduates, while from the students' perspective, the focus is often on obtaining a degree regardless of the institution they attend (Tinto, 2017). This divergence of interests opens up space for another fundamental debate for understanding dropout in higher education: persistence and motivation to complete studies. Student persistence was also one of the research subjects of Vincent Tinto, who attributes to retention theories an exaggerated emphasis on institutional actions, leaving student observation in the background (Franco *et al.*, 2021). Understanding persistence means understanding the motivations used to remain in a course and at the same institution until obtaining a degree (Tinto, 2017).

Vincent Tinto's model of motivation and persistence and/or student dropout

Honorato and Borges (2023) state that retention is a result of overcoming the difficulties experienced during undergraduate studies. From this perspective, the same

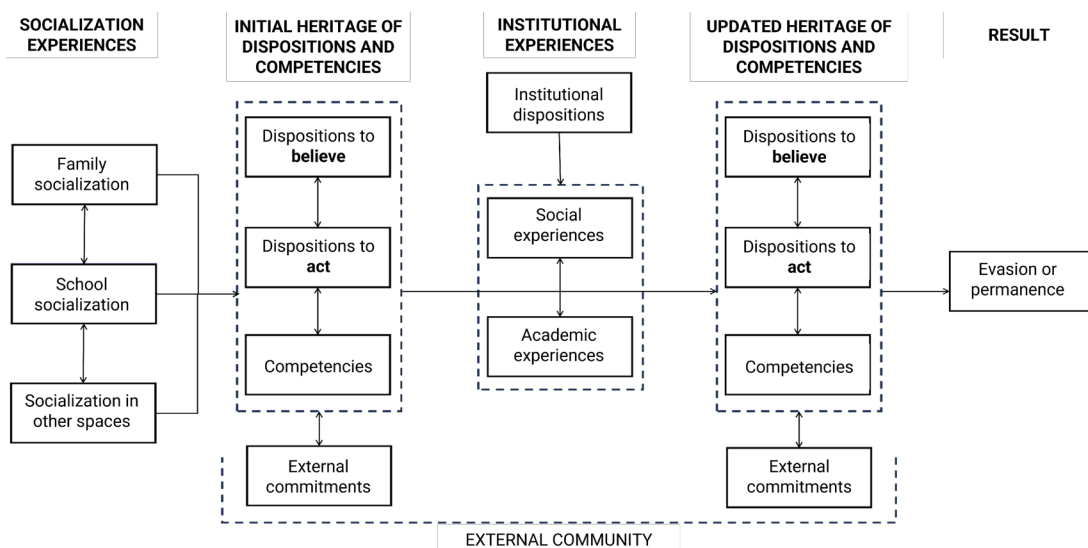
authors reinforce those theories of Sociology of Education that have been dedicated to producing correlations between descriptive variables capable of estimating the probability of a student dropping out. The development of this new model by Tinto overcomes the criticisms made of the Student Integration Theory (SIT), since it changes the locus given by the sociologist, who abdicates the emphasis given to the institution and starts focusing on the students (Espinosa *et al.*, 2023).

Regarding students, it is possible to affirm that their intention to complete a course depends on more than their goal of obtaining a diploma. There is also a sense of belonging, which demonstrates their value in the academic community; their belief in self-efficacy, which is the way they deal with the demands of the course; and the perception of curricular relevance, which deals with the importance given to the curricular content of their course (Espinosa *et al.*, 2023). For there to be motivation, it is essential that experiences interact with these three elements (Franco *et al.*, 2021). Two important premises of this model are the desire to persist and the ability to do so. Desire, as stated by Espinosa *et al.* (2023), encompasses the objectives and motivation of students; while ability depends on the institutional actions taken to ensure that students remain in the course and in the institution. In addition, it is important to emphasize that the HEI must create favorable conditions so that the academic objectives of its students are achieved, motivating them to persist in the course. To make this issue viable, it is essential that HEIs and students get closer (Honorato; Borges, 2023).

For Espinosa *et al.* (2023), motivation stems from the student experience at university, especially when there is a concern with the course and the institution attended. Linked to this, the academic background contributes to the interpretation of how this involvement occurs. On the other hand, the same authors emphasize that the commitment to obtaining the diploma does not occur uniformly among students. There are cases in which individuals arrive at graduation with plans to reorient their course choices or change degrees and institutions due to social prestige. In these situations, an action similar to a “springboard” is noticeable, since persistence consists of acquiring the skills and competencies necessary to take a new entrance exam. This situation mainly affects those enrolled in less prestigious courses that are favored by institutional policies aimed at acquiring cultural and social capital. Therefore, aiming to finish the degree at a specific HEI is not enough to encourage persistence. For this to happen, the student must be motivated to persist in that context (Espinosa *et al.*, 2023).

According to Tinto (2017), the impact that student experiences have on motivation can be an unfolding of the interaction of individual goals, self-efficacy, sense of belonging, and the importance given to the curriculum by students. Based on this finding, it is possible to represent the motivation and persistence model through a flow diagram (Figure 4) that represents the influence exerted by self-efficacy, sense of belonging, and curricular perception on motivation, producing persistence. It is important to remember that the starting point of the model are the goals set before and during the course.

Figure 4- Tinto's (2017) model of motivation and persistence and/or student dropout



Source: Franco *et al.* (2021, p. 161).

The motivation and persistence model is central to student motivation. Espinosa *et al.* (2023) states that the way academic experiences influence motivation is distinct. Based on this, students attribute unique meanings to each of their experiences at university. One situation that serves as an example is failure. When students fail a course, they may see the HEI as an unsuitable place for them. The authors also state that this is an expression of the students' singularities, which need to be understood as individuals. According to Franco *et al.* (2021), goals and/or objectives; self-efficacy beliefs; sense of belonging and perception of the curriculum directly affect students' motivation and, consequently, their decision to continue their higher education course or not. Breaking down each of the components of the model, self-efficacy is the student's ability to carry out and organize the specific demands of their course. It is important to recognize that the practices adopted are multiple due to the diversity of individuals present in higher education (Espinosa *et al.*, 2023).

The location of a given sector, for example, affects how a subject may feel able to solve their problems. It is necessary to understand that the model establishes self-efficacy as “the student’s belief in their ability to perform the necessary actions in the pursuit of a degree” (Espinosa *et al.*, 2023, p. 4). Thus, the greater the academic self-efficacy, the lower the chances of dropping out. Students engaged in university tasks strive to complete them even in adverse situations. The interpretation given to problems changes, treating them as challenges to be overcome.

One of the paths that allow the construction of self-efficacy is the performance of actions or activities that can stimulate the confidence of undergraduates (Espinosa *et al.*, 2023). The development of socio-emotional skills such as self-knowledge, self-control, empathy, responsible decision-making, and prosocial behaviors are fundamental

to the quality of life of undergraduates. Possession of these skills increases self-efficacy, persistence, academic performance, interpersonal relationships, and commitment (Damásio; Grupo Semente Educação, 2017).

With the attributes discussed above, welcoming and recognizing differences leads students to a greater sense of belonging and institutional and professional identity. An environment that favors these skills stimulates persistence (Honorato; Borges, 2023). The sense of belonging is the feeling of acceptance and appreciation built by the student based on the welcome received in the academic community. This can occur in affinity groups formed with colleagues or even with the institution in its broadest sense (Espinosa *et al.*, 2023).

Belonging only occurs when students engage with their peers, teachers, and staff. It is expressed through solidarity, inclusion, and validation of the activities carried out at the HEI. In the classroom, active teaching-learning methodologies encourage interaction among students, consolidating a sense of belonging. The same occurs with welcoming policies, such as research grants, mentoring by veterans, psychological support, and accessories that refer to the course – such as t-shirts, buttons, and stickers (Espinosa *et al.*, 2023). Gastal and Pilati (2016) consider belonging to be a basic need. It would be the motivation for the search for denser and more positive social relationships. The need to belong to a certain group requires the maintenance of deep social ties that bring rewards, exceeding mere participation and emphasizing the quality of the ties established, as well as acceptance by others. Belonging affects other behavioral variables, such as mood and the incidence of diseases. Acceptance and belonging reinforce character and motivation, favoring socialization with peers.

To remain motivated to persist, students are influenced by the curriculum of their higher education courses. This means that there is a perception related to the relevance of the content studied for their education. There are several issues that are immersed in the perception of the curriculum. However, when subjects are able to perceive the quality and relevance of the curriculum, this perception becomes more effective (Tinto, 2017). Another interpretation given to the perception of curricular relevance is the way in which the content is addressed and the expectation for good performance (Espinosa *et al.*, 2023).

More than the content taught, the curricular perception encompasses teachers and their pedagogical practice. At the same time, students need to engage with the content so that they can persist in their studies (Espinosa *et al.*, 2023). The idea created about the quality and relevance of the curriculum concerns various interactions that involve teacher training, teaching methods, the organization's infrastructure, and the way students learn. The curriculum is not a cluster of fixed concepts and themes; it expresses what is considered important for the analysis of everyday life (Tinto, 2017).

To the detriment of this, there are cases in which students feel captivated by the curriculum's themes and feel that they were designed to prepare them for the challenges of the profession. In other situations, however, this correspondence does not occur and the subjects end up not seeing themselves in the syllabus provided for in the course. These two forms of perception regarding the curriculum can be fostered by the dialogue established by the teacher in the classroom, as well as the attention given to the demands of the class, the teaching methods and the objectives, skills and competencies that will be achieved in each activity (Espinosa *et al.*, 2023).

During classes, students need to perceive the quality and relevance of the content worked on. This is evident when the learning is good enough to compensate for the time dedicated to studying, functioning as a reward and, consequently, favoring persistence (Tinto, 2017). Active teaching-learning methodologies, such as the Flipped Classroom, enable students to take a leading role and make the curriculum more attractive. The same occurs when a teacher chooses to work with case studies that are linked to the students' context (Espinosa *et al.*, 2023).

The motivation and persistence and/or dropout model do not exempt students from being affected by factors external to the university. It is important to remember that this is an issue that remains from the Student Integration Theory (SIT) and that it is up to HEIs to seek ways to support newcomers so that dropout does not become a reality. This includes strengthening skills capable of clarifying goals in relation to the course and, consequently, stimulating self-efficacy, a sense of belonging and perception of the curriculum (Franco *et al.*, 2021).

Final considerations

This study concludes by presenting different ways of understanding dropout and guiding this phenomenon. Its central arguments focused on discussing the expansion of higher education in Brazil, as well as opportunities for access to undergraduate courses and institutions. At the national level, these issues have been problems throughout the 20th century, with the participation of the student movement, the implementation of public policies, and changes in the global economy that have given higher education a new meaning.

Based on the perception of dropout as a global problem and its consequences for individuals and society, researchers and governments in several countries have become concerned with this phenomenon, making it an item on the agenda of international economic organizations. In the case of Brazil, in the mid-1990s, there was a Special Commission on Dropout aimed at public universities that unified the definitions and ways of measuring dropout. With the arrival of the 20th century, there was an investment in public policies that brought the less favored to HEIs.

In this scenario, the arrival of black, mixed-race, and indigenous people; working-class students; People with disabilities; graduates from public schools; and low incomes demanded that retention policies be implemented in order to ensure that these individuals do not drop out of higher education. However, more than being assisted by institutional and state actions, the new higher education audiences need to decode how courses and HEIs work, reconciling their commitments outside the academic environment. When this relationship does not occur, retention becomes less likely.

With regard to the general objective, explaining dropout rates in higher education based on bibliographical research on the models developed by Vincent Tinto, it is observed that it was successful in achieving this. Based on a systematic literature review, the article managed to articulate works produced in Brazil that demonstrate the branch of Tinto's ideas in the local scenario. Criticism and reinterpretations were also made to understand

how the expansion of opportunities for access to higher education and, consequently, dropout rates affected courses, universities and the Brazilian higher education system.

Regarding the specific objectives, it is plausible to state that there was a positive outcome in achieving them. Namely, the first aim was to describe the variables that favor the occurrence of dropout. Vincent Tinto himself reworked the Student Integration Model, creating another possibility focused on students' motivation to persist in higher education. Another important reading for studies on dropout in Brazil was presented by Lima Júnior (2013), whose centrality is focused on the student's dispositional appropriation to complete their course. The second intention of the research was to demonstrate the potential and limitations of the Student Integration Theory (SIT). The most notable limitation was made by Espinosa *et al.* (2023) when they state that SIT has limitations to be adopted in contexts that differ from the North American reality. Differing from this approach, Magalhães (2013) and Paula (2021) highlight Tinto's paradigmatic character in studies on dropout in Brazil. The authors report the use and appropriations of integration models in other studies, indicating their quantitative recurrence and other proposals based on the concepts of SIT.

The last specific objective, which aimed to compare the Student Integration Theory to the motivation and persistence/dropout model developed by the author, provided an explanation that showed the redefinition of the focus given by Tinto to his studies. This is an important change due to the centrality given to students, especially in relation to the desire to persist and the ability to ensure that this happens. The desire to persist involves the student's objectives and motivation, while the ability is related to the institutional actions undertaken to remain in the course and at the HEI.

Dropping in higher education, a research problem emphasized by this study, brought about the need to clarify other issues that emerged from Tinto's models or even the causes responsible for dropout in Brazil. Thus, as a snowball effect and within the scope of bibliographic studies, support was sought in other articles, in addition to the most common ones on SIT and the Student Motivation and Persistence/Dropout Model. Another effort was the use of more recent works that had a pendulum effect between the "classics" and the "contemporaries".

The limitation of this study was the selection of articles to compose the literature review. The limited scope of the research prevented the use of theses and dissertations, which could allow the construction of a state-of-the-art research. As a result, this work is restricted to an exclusively theoretical review, focused on some works that were notable in the field of Sociology of Education in the Brazilian case, linked to the Student Integration Theory. Thus, the choice of predictors linked to dropout were limited so that the objectives could be achieved. From another point of view, the contributions found indicated changes in the models of student integration, motivation and persistence, highlighting the conceptual care that should be taken during research. As already indicated at the beginning of the text, studies on dropout have increased over time and the use of Tinto's models has been the foundation for much of this work. Thus, the synopsis of the causes of dropout suggested in this article took into account the same instances used by Tinto – individual, institution and society – emphasizing their interactivity.

Finally, this study raises pertinent reflections on the applicability of Vincent Tinto's theoretical models to the Brazilian context. Would it be possible to design an analytical model of our own, more suited to the specificities of higher education in Brazil? In this sense, wouldn't it be desirable to have a framework to monitor newly admitted students and proposing interventions that favor their motivation to remain in college, especially in public universities? From an empirical point of view, would it be feasible to identify and measure the factors that influence students' motivation to persist in their undergraduate studies? And finally, how can imbalances between the external community and the university's social and academic systems be mitigated?

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