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School Trajectory: Elements for its Analysis and Interpretation in Higher Education

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ABSTRACT: *The study of the school trajectory is a process that acquires importance for educational intervention programs to support the student and institutional evaluation; reason why the academic staff needs to know how to analyze and interpret a school trajectory. In this context, the study was carried out with the purpose of building a horizon of understanding aimed at the analysis and interpretation of the students' school trajectory. The study included three stages: construction of the horizon of meaning; characterization of the elements of the methodology of scientific research programs (hard core, protective belt and heuristics); and construction of the fusion of horizons. Recognizing the student in his transit through the Institution of Higher Education, the school trajectory is understood as the epistemic-social construction for the phenomenological follow-up of a continuous process by nature, to search for explanatory models for the phenomena of entry, permanence (advance, lag and school dropout), and graduation (including obtaining a professional degree). The analysis of the school trajectory requires understanding the ecosystem structure (micro-level, meso-level and macro-level) that articulates the entry-permanence-graduation axis and makes it possible to interpret the student's school characteristics at the individual and institutional level. It concludes by highlighting the importance of training teaching staff in the analysis of school trajectories to contribute to the integral development of the student during their professional training.*

KEYWORDS: *school trajectory; institutional evaluation; quality of higher education; higher education; academic tutoring.*

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I. INTRODUCTION

During the 1970s, higher education enrollment in Mexico experienced an exponential growth of 250% associated with an annual growth of 22% in the annual rate of graduates [1].The impact on the educational system was negative, since Higher Education Institutions (HEI) lacked financial resources, educational infrastructure and qualified academic personnel, which would make it possible to meet the learning needs of students [2].

The impact also affected the administration and educational planning in the HEIs when facing the challenge of starting educational activities in each school period without having relevant information to conduct the educational process so that the student acquires the knowledge, skills, attitudes and values that the labor market required.Thus, the impact of the massification of higher education in Mexico gradually deteriorated the level of quality. In addition, it was evident the lack of knowledge of the student's characteristics to meet the support needs and improve the professional training that was being taught in the classrooms of the HEI [3].

In the decade of the 80s of the 20th century, they systematically began the analysis of institutional variables related to dropout, failure and graduation, with the purpose of founding educational policies that addressed the educational problems that prevailed in professional training[4,5]. These initial studies made it easier to focus on the student as the object of study to approach the sociocultural phenomenon that underlies the student's transit through the educational institution from their admission to obtaining the professional degree, so that it was possible to characterize the school trajectory through based on the description of indicators of permanence and school performance [6].At the end of this decade, the Federal Government is oriented to recover the experience of the HEI and promotes the "Program for Educational Modernization 1989-1994", which aspired at the time to raise the quality, relevance and relevance of education in general, including higher education [6].

By the decade of the 90s of the last century, the concept of school trajectory had been standardized, and two dimensions of the object of study were differentiated: in the institutional, indicators such as terminal efficiency, school performance, desertion, failure were characterized; the individual focused the analysis of indicators on school performance, school failure, school success, falling behind in studies, dropout; which facilitated studies in which the relationship between academic and sociodemographic characteristics with the

students' school trajectory is analyzed; trend that opened the possibility for the National Association of Universities and Institutions of Higher Education (ANUIES) to promote since the year 2000, the implementation of academic tutoring programs that address the problems of school dropout, failure, graduation and terminal efficiency [8,9].

In the first decade of the 21st century, studies related to the analysis of the school trajectory had been consolidated, presenting two fundamental trends associated with the quality of higher education and the integral formation of the student. The first is related to the research processes that manage to establish sociocultural and academic profiles of the students, in addition to identifying risk factors that affect the school trajectory, in addition to generating explanatory models of the transit of students through the educational institution [10], in such a way that it contributes to the implementation and development of academic tutoring programs.The second trend is associated with higher education accreditation processes, which, considering the analysis of the educational trajectory as a basic evaluation standard, promotes the implementation of actions that address failure and desertion [11,12].

In this scenario, the teaching practice is acquiring new educational responsibilities that entail the acquisition of knowledge and competences oriented to the analysis of the school trajectory of their students. Following this line of reflection, questions arise such as: who should provide the information to the teacher to carry out the analysis of the students' school trajectory? Does the teacher have the technical skills to carry out this process of analysis and interpretation? Currently, HEI have information systems that facilitate the obtaining and dissemination of information related to the students' school trajectory; however, there is no empirical evidence that allows us to affirm that teachers have the training to interpret and program educational interventions to meet the educational needs that reflect the students' school trajectories. Reason for which, the purpose of the study is to build a horizon of understanding aimed at the analysis and interpretation of the students' school trajectory.

II. METHODOLOGY

The study and analysis of the school trajectory is relatively recent and is developed from a scientific research logic supported by the dialectic of the construction and rational reconstruction of the thematic field of educational evaluation. In this sense, the methodological approach of the study focuses on the Lakatosian perspective of the Methodology of Scientific Research Programs (MSRP), which makes it possible to identify rival research programs, as well as progressive and stagnant problems [13].From this approach, the development of the study was divided into three stages. The first one delimited the bibliohemerographic content to build the horizon of meaning diachronically and synchronously from categories of analysis and identify the internal and external history of the school trajectory. In the second, the components of the research program were determined: firm core, protective belt and heuristics (positive and negative). In the third, the fusion of horizons that demarcate the trends of research and application of the study and analysis of educational trajectories was integrated.

First stage: horizon of meaning

Through the horizon of meaning, the analytical-conceptual delimitation of the object of study was reconstructed [14,15], in this case, the student in his transit through the IES. The construction of the horizon of meaning corresponds to the reconstruction of the internal historical development from the objective knowledge derived from the logic of scientific discovery, to give way to external history [13], that is to say, to the social conditions in which the logical processes of the investigation of the characteristics of the school trajectory are developed. At this stage, the following categories of analysis were determined: dimensions of the school trajectory, indicators of the school trajectory, ecosystem structure for the application of the study of school trajectories. These were used as key terms to retrieve articles from the databases of higher education journals included in Scielo, Redalyc and Google scholar; In addition, relevant publications were retrieved using the secondary search system (Pearling). The review was carried out between January and December 2022. Scientific literature published in Spanish and containing information on higher education in Mexico was included.

Second stage: identification of the elements of the MSRP

Lakatos describes the MSRP as the descriptive unit of scientific advances in which scientific theories are sequentially integrated with space-time continuity, so that it is configured in the epistemological unit of analysis [13,16].Based on Lakatos' approach, after having made the first approximation to the object of study through theoretical cutting considering the categories of analysis, the elements of the MSRP were identified: hard core, protective belt and heuristics; thereby representing the scientific reconstruction of the logic of research.

The hard core is the structure that characterizes the MSRP, it is integrated with general hypotheses, theories or universal statements that provide stability and support the entire MSRP. The hard core includes

scientific knowledge that has been conventionally accepted by the scientific community and is considered irrefutable [13,17].

The protective belt is made up of explicit auxiliary hypotheses, observation statements, and assumptions underlying the description of the initial conditions. It is located on the periphery of the firm core, protecting it, but it also enables the dynamism of the MSRP, gradually adapting it [13,17].

Heuristics refers to the methodological rules that have enabled the development of research processes organizing conceptually, methodologically and empirically the MPIC. Those methods that must be avoided configure the negative heuristic and imply the impossibility of modifying the hard core. The suggestions that make it possible to make changes to the hard core constitute the positive heuristic, in such a way that it defines methods and problems to make sense of the protective belt from the construction of auxiliary hypotheses [13,17].

Third stage: fusion of horizons

In the fusion of horizons, we proceeded to the articulation of a set of research problems that derive from the demarcation of the thematic field and are built from reality cutting processes supported by problematization processes. Problematization as a cognitive tool to develop the problematic field is generated through the question and answer dialectic. The questions arise from the questioning that is made of reality and the answer is inscribed in the hard core.By identifying unanswered questions, it is incorporated into the problematic field and will lead to the outline of auxiliary hypotheses that will give meaning to the research processes. The problematic fields are contained in the thematic field and establish relationships among themselves, configuring themselves in networks of problems, which makes it possible to establish trends by merging the horizons of different disciplines.

III. FINDINGSAND DISCUSSION

Higher education in the contemporary world is undergoing a post-pandemic transformation in the production systems of goods and services, as well as in labor relations and ways of working [18,19].In order to understand these transformations and anticipate scenarios that enable students to achieve academic success, it is important to know the factors that influence admission to the HEI, understand how their future life prospects are articulated with the factors that influence failure, lag in itinerary indicated in the curricular map of the study plan, so that actions are implemented that strengthen the student's integration into the school environment and meet educational needs, in addition to recognizing the socio-cultural diversity of the student as well as their expectations and perceptions of the curriculum school, the lived curriculum and the hidden curriculum.

In this sense, the study of school trajectories consists of situating the characteristics of the students, as well as the factors at the individual level that affect admission, academic performance, lag, dropout, desertion and graduation, but within the characteristics of the schooland the historical-social context in which the student develops. Placing yourself in this context to carry out the study of school trajectories allows you to explore the social, academic and administrative processes that underlie the student's life in their transit through the HEI.

Horizon of meaning

The conceptualization of the school trajectory is a relatively recent process, which took shape in the 1990s of the 20th century [20].The recognition of the influence of the conditions associated with the development of the student's school life in the educational institution and the understanding of the multifactorial dimension of the set of transitions that are articulated for the student to continue his studies, provided meaning to the concept enunciated in 1997 by Chain and Ramírez [21] in the following terms: “a set of factors and data that affect and account for the school behavior of students during their stay at the university”.

The studies carried out during this period, were incorporating the measurement of indicators that established different levels of educational capital that was acquired as the student progressed with the approval of the subjects defined in the study plan. In this line of reflection, and advancing in the elaboration of the term "school trajectory" as a construct with empirical support.Altamira [22] points out that the school trajectory is "the quantification of the school behavior of a group of students (cohort) during their educational journey or stay in a school establishment from the entrance, permanence and exit, until the conclusion of the credits and academic-administrative requirements that define the curriculum”.

Since these theoretical-empirical approaches were developed in 1997, the fundamental concept of "school trajectory" has not changed significantly, because as Ortega [10] points out, it is recognized that the object of study of the school trajectory is the student, so the trajectory school is the phenomenological expression that makes it possible to measure the educational process in its temporal and spatial dimension, through a set of indicators that will account for the academic behavior of the student from the moment they enter the educational program until they graduate and obtain the professional title for the exercise. professional in the corresponding labor field; so that the school trajectory is articulated with the follow-up of graduates.

Hard core

Among the most significant advances in the field of research and educational evaluation mediated by the school trajectory during the last 30 years, was to center the object of study on the student, a reality from which the student's school behavior is phenomenologically reconstructed to the triadic processingress-permanence-graduation.Following this line of reflection, it is clear that the school trajectory is the epistemic-social construction for the phenomenological follow-up of a continuous process by nature, to seek explanatory models for the phenomena of ingress, permanence (advance, lag and school dropout), and graduation (including obtaining the professional degree).

In this context, the school trajectory of the student who is studying at the higher education level represents different dimensions of an ontological, epistemological, axiological and methodological nature (Figure 1).The ontological dimension places the student in his existential condition of being-in-the-world where he recognizes himself as a student-being located in his socially and culturally determined historical context, which implies the representation of a moment in the perspective of the course of life. of the student in his transition towards the incorporation of the labor market. In this dimension, the characteristics of the student that are relevant in the context of the knowledge society are highlighted, where learning demands are specified that are articulated throughout the student's life, articulating the transitions between educational levels with the professional practice in which world of work.

The epistemological dimension is directed to the analysis of the theoretical and scientific foundations of the school trajectory as a construct that enables the description, understanding and explanation of the factors associated with the student's transit through the educational program; also indicating the limits and validity of the information when operating the indicators used for the study and analysis of the school trajectory. In this dimension the student is a being-in-action-cognitive.

The axiological dimension contributes to develop the typology of the school trajectory, basing the value judgments that derive from its study and analysis, located in the context of institutional and social values that will lead to define intervention strategies that help the student to perform during the course of their undergraduate studies, as pre-established in the educational program. In this dimension, the student shows himself as a being-in-relation-to-the-other.

In the methodological dimension, in addition to including the theoretical-methodological foundations of the study of the school trajectory, the construction of indicators at different levels of explanatory approximation of the variability of the phenomena associated with the processes that underlie the student's transit through his undergraduate studies. In this dimension, the student is understood as a being-situated-in-the-praxis.

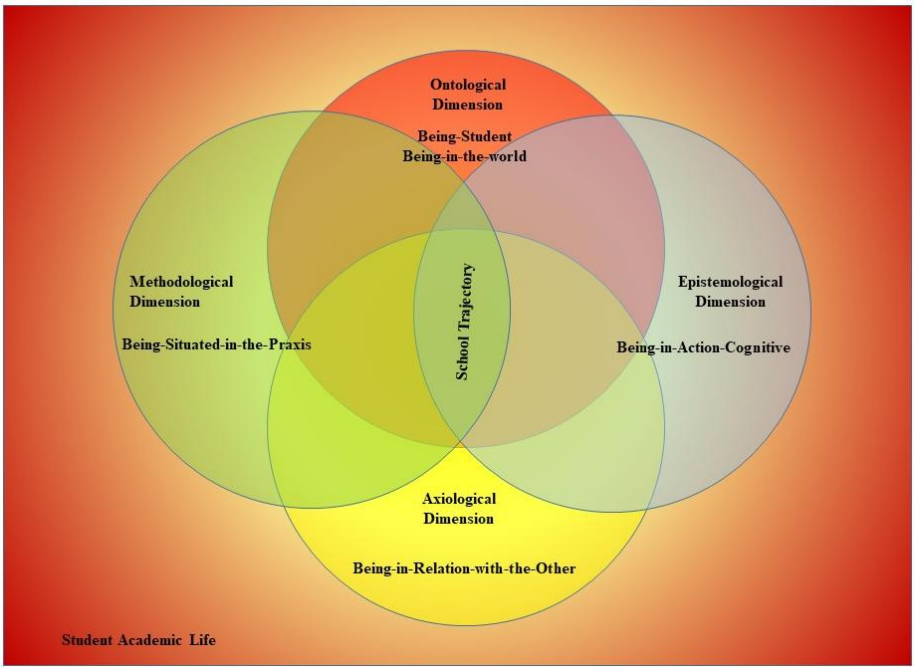

Figure 1. Schematic representation of the dimensions of the student's school trajectory.

These dimensions are integrated into the conceptual model that is presented in Figure 2, where the triadic process of ingress-permanence-graduation is represented. In the student's admission to the educational program, it is important to characterize the previous training that has accumulated as academic capital in his

student life, as well as to identify the historical-social characteristics with which they are incorporated into the HEI. Through the admission profile of the newly admitted student, the learning needs required to join the educational program are identified, which helps to implement psycho-pedagogical support programs and regularization courses that address the identified academic deficiencies.

The student's permanence in the educational program includes the study of the academic path in relation to school performance associated with the approval and failure of the subjects, promotion to the next school period, distinguishing their school situation (regular or irregular), which will condition abandonment, desertion and permanence in the HEI.

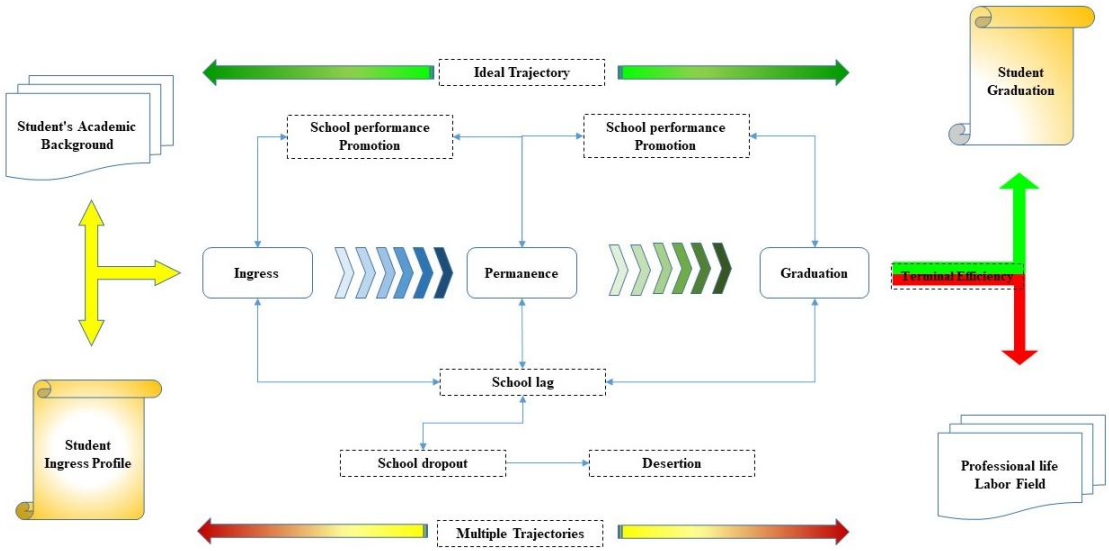

Figure 2. Schematic representation of the conceptual model of the student's school trajectory.

Graduation from the educational program concentrates the information of the student who concludes his studies through the terminal efficiency indicator, which has been attributed greater relevance in the institutional evaluation processes, which is why the conceptual and empirical review concentrates the interest of educational researchers [5,23-25]; because in the school trajectory there are protective factors that help the student to develop during the transit through the HEI in accordance with the guidelines established by the institution and the educational program, facilitating social mobility in the future, but also implies the causal association of risk factors that affect school success and that are linked to structures of social inequality, characteristics of the HEI, but also of the individual choices and actions carried out by the student that will affect the individual capacities, their future academic and work life. In this sense, empirical studies reveal the effects of the characteristics present in each transition of the school trajectory, which allows the student to transit through the institution through different routes that facilitate the construction of a stable relationship between the educational process and its well-being to adapt to the conditions that the academic environment is demanding.

Protective belt

The analysis carried out in the study of the school trajectory is based on the set of indicators that explore the three components of the student's transit through the IES: entry, permanence and graduation; that are obtained through a database with student information; however, there is no general consensus that indicates which indicators should be used to assess the student's educational trajectory. The different proposals for indicators to be measured can be stratified, from an ecosystem approach, into [26]:micro-level, meso-level and macro-level.

The micro-level in the study and analysis of the school trajectory includes indicators that measure the progress of students within the framework of the study plan. It is based on the analysis of individual and group behavior that is aimed at school performance, school failure or success [26].The indicators that are located at the micro-level are [10]:

- *Approval rate in ordinary evaluation* (IAO): it is the percentage of subjects or credits approved without having taken extraordinary exams or having appealed them. It is calculated with the following formula [10]:

$$IAO = \left(\frac{\text{Number of subjects or credits promoted in ordinary evaluation}}{\text{Total subjects or credits taken}} \right) X\ 100$$

- *Promotion index to the following school period* (IP): it is the proportion of subjects or credits that the student has promoted, regardless of the type of exam, of the total number of subjects taken. It is calculated with the following formula [10]:

$$IP = \left(\frac{\text{Number of subjects or credits promoted}}{\text{Total subjects or credits taken}} \right) X\ 100$$

- *Grade point average* (PC): is the average of passing grades of the courses taken. It is calculated with the following formula [10]:

$$PC = \left(\frac{\text{Sum of grades of subjects taken}}{\text{Total subjects or credits taken}} \right)$$

- *School performance* (DE): is the combination of the *approval rate in ordinary evaluation* (IAO), the *promotion index to the following school period* (IP) and the *grade point average* (PC) [10].
- *School situation* (SE): it is the percentage of subjects or credits that the student covered of those that must be covered according to the study plan, whether it is expressed in periods of years, semesters, four-month periods or others. It is calculated with the following formula [10]:

$$SE = \left(\frac{\text{Number of subjects or credits promoted}}{\text{Total subjects or credits required by the educational program for the cohort to which the student belongs}} \right) X\ 100$$

- *Type of school trajectory* (TE): it is the combination of *school performance* (DE) with the *school situation* (SE) [10].
- *Drop-out risk* (RA): is the degree of risk that the student will not successfully complete their studies. The *type of school trajectory* (TE) is reclassified into no risk, risk and high risk [10].

The meso-level in the study and analysis of the school trajectory includes indicators that allow defining the characteristics of the HEI related to internal efficiency within the framework of its institutional evaluation processes associated with student performance and that will lead to the analysis of its policies [26].The indicators related to the study of the school trajectory in the meso-level are distributed in two groups [27]:

- Monitoring indicators
  - *Lag index*: is the ratio of students who fall behind in enrolling in the corresponding subjects according to the sequence indicated in the study plan, with respect to the enrollment of the cohort in reference to the time indicated in the study plan. It is calculated with the following formula [22,27,28]:

$$\text{Lag Index} = \left(\frac{\text{Number of students lagging behind in a cohort}}{\text{Total cohort enrollment}} \right) X\ (100)$$

  - *Retention rate*: it is the capacity of the institution to retain students after the time stipulated in the study plan has elapsed. It is calculated with the following formula [27]:

$$\text{Retention Rate} = \left(\frac{\Sigma\ [\text{Active students (enrolled and without re-enrolling), temporary withdrawals and/or graduates of a cohort}]}{\text{Total cohort enrollment}} \right) \text{X (100)}$$

- *Dropout index*: the total number of students who drop out or permanently suspend school activities before concluding the educational program. It is calculated with the following formula [27]:

$$\text{Dropout Index} = \left(\frac{\text{Students with definitive withdrawal and canceled status}}{\text{Total cohort enrollment}} \right) \text{X (100)}$$

- *Failure rate*: is the percentage of the number of students failing in relation to the rest of the enrollment of a given cohort. It is calculated with the following formula [27]:

$$\text{Failure Rate} = \left(\frac{\text{Students in failing condition}}{\text{Total cohort enrollment}} \right) \text{X (100)}$$

- Evaluation indicators
  - *Terminal efficiency*: it is the relationship between the students who enter and those who graduate from the same cohort. It is calculated with the following formula [27]:

$$\text{Terminal Efficiency} = \left(\frac{\text{Graduated students from the cohort}}{\text{Students entering the cohort}} \right) \text{X (100)}$$

  - *Terminal graduation efficiency*: it is the proportion obtained by relating the graduates of a generational cohort and the students who were part of the same generational cohort. It is important to point out that to determine the number of students graduated by generational cohort, institutional guidelines must be followed in relation to the period in which they can graduate in regulation time [29]. At the national level, a period of 5 years on average has been established. It is calculated with the following formula:

$$\text{Terminal Graduation Efficiency} = \left(\frac{\text{Graduated students of the cohort in the regulatory period}}{\text{Students who graduated from the same cohort}} \right) \text{X (100)}$$

  - *Graduation rate* [29]: also called "graduation efficiency in relation to graduation" (ETE), it refers to the proportion of graduated students in a given cohort and the number of graduates. It is calculated with the following formula:

$$\text{Graduation Rate} = \left(\frac{\text{Graduating students in the cohort}}{\text{Total number of students who graduated}} \right) \text{X (100)}$$

  - *Graduation efficiency*: it is the division of the number of cumulative graduates (includes graduates or graduates) of the cohort by the number of students who entered the cohort. It is calculated with the following formula [27]:

$$\text{Graduation Efficiency} = \left(\frac{\text{Graduated students and number of students who took a professional exam in the cohort}}{\text{Students entering the cohort}} \right) \text{X (100)}$$

The macro-level in the study and analysis of the school trajectory includes indicators that define their participation within the framework of the higher education system, in addition to offering elements that show attention to their social responsibility and accreditation processes that will lead to social recognition. of its graduates [26,30]. The indicators that are located at the macro-level are [31,32]:

- *Attention to social demand*: It is the relationship between the total number of students who are enrolled in an educational level (attended demand) and the total population that is of the corresponding age to attend said educational level (social demand)[31,32].
- *Attention to potential demand*: This indicator expresses the capacity of the educational sector to offer education to the school-age population that requests to study at the corresponding level; for this reason, it is calculated as the percentage relationship between the total number of students who enrolled at the beginning of courses of a given educational level (met demand) and the school-age population corresponding to the level in question, who request to enroll in the level education that corresponds to it (potential demand) [31,32].
- *Absorption*: It allows knowing the number of graduates of a given educational level, who manage to enter the immediately higher educational level [31]; that is, it expresses the percentage relationship between the new entry to the first grade of an educational level, in a given school cycle, and the graduation from the last grade of the immediately lower educational level of the previous school cycle [32].
- *Approval*: It is the total number of students who have satisfactorily accredited the evaluations established in the study plans and programs [31]. Represents the percentage of students who can enter the next school period [32].
- *Failure*: allows analyzing the percentage of the number of students who have not obtained the necessary knowledge established in the study plans and programs of any subject and must repeat said course; reason for which it allows evaluating the efficiency of the educational process (student performance) and looking for risk factors in the social, economic and pedagogical context of the student [31,32].
- *Promotion*: It is the proportion of the number of students who, after having passed a school grade, are enrolled in the next higher grade [31,32].
- *Repetition*: it is defined as the percentage of students who must take a subject again due to not having accredited it and continue their studies in the period of the school year that corresponds to them according to institutional regulations [31,32].
- *Transition*: Refers to the comparison between the total number of students enrolled in a given grade and school cycle, and the total number of students enrolled in the immediately lower grade and cycle [31,32].
- *Retention*: expresses the number of students who continue to study throughout a school cycle and who continue in the following cycle; Therefore, it allows to evaluate the internal efficiency of the higher education system [31,32].
- *Dropout*:It expresses the number or percentage of students who drop out of school activities before finishing any grade or educational level [31]. Dropout can be intracurricular dropout (dropout that occurs during the school year), intercurricular dropout (dropout that takes place at the end of the school year, regardless of whether the student has passed or not) and total dropout [32].
- *Terminal efficiency*: it has been indicated that it is the relationship between students who enter and those who graduate from the same cohort [27], which allows analyzing the number of students who finished their studies on a regular basis (within the ideal time established in the educational program to present professional exam) and the total number of students who complete it extemporaneously [31,32].
- *Average duration of the studies of the graduates*: shows the average number of years in which the students study an educational level; It is calculated by multiplying the number of students in a cohort who take the professional assessment to obtain the professional degree, by the number of years it took them to take the professional assessment to complete the educational level, and this result is divided by the total number of graduates of that cohort [31,32].

Heuristics

The fundamental purpose of the studies related to school trajectories is directed towards the characterization of the student during his itinerary through the IES so that it is possible to carry out educational interventions that increase the indicator of terminal efficiency. But they also aspire to explain the phenomena of permanence, approval, failure and school dropout, based on the causal association relationship with other manifestations of school behavior.

Based on the evidence published since the 1970s, the study of students' school trajectories has gone through different moments that adhere to hegemonic methodological paradigms. Thus, the studies carried out between 1970 and 1985 were descriptive in nature and adjusted to the quantitative research paradigm.Between 1985 and 2000, the studies used qualitative methodological approaches, enriching the models that made it possible to understand the students' school life. But from the year 2000, with the possibility of accessing databases and historical cohorts [33], the importance of promoting quantitative-based studies was recognized that, in addition to continuing to describe the characteristics of the student, would help to generate explanatory models. of the factors that influence the student's school life [34].Thus, the analysis of the school trajectory went beyond resorting to mixed methodologies, since rather it has been achieved that the studies of a quantitative and qualitative nature complement each other in the integration of explanatory models, whether applicable to the National Educational System, or, to each of the HEI.

In the last 20 years, studies of quantitative and descriptive school trajectories have been complemented by conceptual and analytical work provided by qualitative research, which has enabled the construction of complex indicators that establish the association between different characteristics of the triadic process of ingress-permanence-graduation as well as its articulation with other student support processes that have developed as significant trends in the operation of educational programs, such as institutional academic tutoring programs and the institutional program for monitoring graduates; so that it is possible to consider the integration of a micro-macro heuristic model to phenomenologically explain the school trajectory of the students for their transit in the IES, so that the possibilities that the student has to transit through the IES are explored and that shows in the diversity of school trajectories both synchronously and diachronically.

Fusion of horizons

The school trajectory has been transformed into the phenomenological and historical-dialectical representation linked to the development of the student's cultural capital that is appropriated throughout his transit through the HEI, which allows observing, understanding and fully explaining the academic environment of the students. university students, but also the effects it has on the permanence and graduation of their studies.Consequently, educational intervention approaches have been generated that reflect the fusion of multiple horizons that lead to the articulation of institutional programs of scholarships, tutoring, follow-up of graduates, as well as regularization courses, in addition to generating useful information systems for the generation and analysis of educational statistics [35].

On the other hand, the trend in the study of school trajectories is being oriented, through educational research processes, towards the analysis of curricular changes [36], social inequality [37], educational equity [38], national and international student mobility, impact on flexible curricular models [39], planning and time management [40], performance in standardized exams such as the General Graduation Exam (EGEL) [41], analysis of school trajectories in students with different abilities [42], integration processes of professional identity [43].

In summary, in this fusion of trends in the educational process in which the study of students' school trajectories can be associated, aspects such as equity in educational coverage, interculturality, interdisciplinarity, internationalization of higher education, education for life, digital inclusion, development of gender approaches that help strengthen gender equality, development of knowledge and values related to the environment, social responsibility and accountability [44].

IV. CONCLUSION

The field of study of school trajectories is still shown as a disciplinary field in consolidation that is gaining relevance for being structured as a conceptual and methodological tool to identify the student's problems in their transit through the HEI, but also to evaluate the educational interventions carried out. to evaluate the solution to the student's school problems.

On the other hand, and given the relationship between the world of work and higher education, the study of school trajectories allows us to investigate how the professional training of the student is articulated with the educational environment of the HEI, the educational system and the professional field; In addition to identifying risk or "protective" factors for the student's performance during their stay in the HEI, so that the probability that they have to function adequately in their school traffic is assessed, through the route provided by the institution and the academic culture accumulated in their school life prior to entering the HEI.

The school trajectory, as a phenomenological expression that makes it possible to measure the educational process in its temporal and spatial dimension, through a set of indicators that will account for the academic behavior of the student from the moment they enter until they graduate from the educational program and obtain the professional degree, makes visible the academic conditions of the student upon entering the educational program, during his stay at the HEI and upon graduation from the studies he carried out.

Based on the student's grades, differentiating the characteristics of approval and failure, the school trajectory must be analyzed, fundamentally, at the individual level (micro-level) with the purpose of monitoring the student's school by the academic staff, to strengthen permanence by addressing the factors associated with repeating courses, falling behind in school, dropping out of studies and educational program.

In addition, the institutions (meso-level) must analyze the school trajectories to obtain a detailed description of school behavior by generational cohort and educational program that makes it possible to assess educational policies aimed at improving the academic environment in which students develop and strengthen the student performance. On the other hand, it is important to delve into the studies at the macro-level, where the HEI describes, analyzes and assesses the strategies, actions and institutional policies relating the school trajectory with the mission, vision, profile of the graduate and learning results declared in the educational program.

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