Towards a Model of Support in the Areas of Services of Educational Assistance and Tutoring in Middle Education in Mexico

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Abstract—Adolescence is a neuralgic stage in the formation of every human being, generally at this stage is when the middle school level is studied. In 2006 in Mexico incorporated "mentoring" space to assist students in their integration and participation in life. In public middle schools, is sometimes difficult to be aware of situations that affect students because of the number of them and traditional records management. Whit this they lose the opportunity to provide timely support as a preventive way. In order to provide this support, it is required to know the students by detecting the relevant information that has greater impact on their learning process. This research is looking to check if it is possible to identify student's relevant information to detect when it is at risk, and then to propose a model to manage in a proper way such information.

Keywords—Adolescence, mentoring, middle school students, mentoring system support.

I. INTRODUCTION

ADOLESCENCE is a neuralgic stage in the formation of every human being, it is at this stage where teenagers begin to wean, to form their own personal and sexual identity. Here it is where they become aware of internal conflicts and childhood trauma. To balance all this is essential for the adult person that adolescents become [1].

In this stage partners and friends become a powerful reference for the teenager; this can disorganize guidelines established by the family [2].

While there is no exact determination of the chronological period of adolescence, there is a consensus among different authors and perspectives, that it is accepted that this can last nearly a decade, starting from 11 or 12 to 19 or 20.

In Mexico, the beginning of adolescence coincides with the educational level called "middle school" where the age range of students is between 11 and 17 years. This implies that all processes inherent in adolescence develop when entering a new academic level (middle school), which is different in many ways to the previous one (elementary school).

An adequate support to teenage students represents an enormous challenge in order to ensure better school

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performance and continuity of students within the school system.

II. MIDDLE SCHOOL AND ADOLESCENCE

In 2006, at national level in the curriculum, middle schools first introduced the space "Tutoring" [3], which works in coordination with the staff of Department of Services of Educational Assistance (DSEA). This department is composed of an educational counselor, social worker, the province and the medical school area.

Mentoring arises with the purpose of assisting students in their integration and participation in school life, meeting their needs and interests, besides supporting students in visualizing their life project, personal fulfillment and improving social coexistence.

One definition of Mentoring is "an institutional strategy that provides support to young people in the educational period of middle school" [4], this accompaniment is performed by a tutor who provides support and guidance to students.

To the Secretary of Public Education (SEP), Mexico government agency in charge of education, Tutoring is "a time for the accompaniment and management of a school group coordinated by a teacher" [5] where one of the teachers in the status of tutor of a group, should contribute to their comprehensive training.

III. PROBLEMS IN MIDDLE SCHOOL

The behavior of the middle school student in the institution is a reflection of: the way how they feel, the problems they must deal, natural changes in the stage of growth, in addition to the particular elements of their environment, such as: family, girl or boyfriend, friends , neighbors, other activities and sometimes their work. All these factors can be difficult to handle for the student, so it is necessary to have school attendance besides family support.

This student support, in addition to the academic work in school, is a complicated task due to the large number of factors involved. Sometimes, even to the point of doing functions that correspond to student's family. With this complex situation, timely support that can be provided to adolescents is very helpful for the present and future life of the student and therefore society in which the student develop.

In addition, in public middle schools in Mexico, there are two components that further complicate the support that should be given to students:
1) The number of students attending school and

2) The manual or traditional records management (general data, academic, personal and information of parents, socioeconomic studies, list of reports, appointments, among others).

All these circumstances stated make it very difficult for the tutors and DSEA staff work. To discern the important from the trivial information, so that in the absence of relevant information and proper management of it, the opportunity to provide timely and appropriate support to the specific characteristics of each student is lost.

The more information the better support and guidance to student is offered, thereby the situations or problems that affect a reduction in academic performance and even dropouts will decrease.

IV. THE PROPOSAL

To provide support and guidance to problems students face, the information from the student environment and context in their daily living must know, it is the information which the staff of the high school have contact with. Capturing that one along with other information could represent an indicator of occurrence of difficulties in students.

The scholars in their daily living, interact in different settings, a lot of information emerges from these interactions. To know the whole student information would be impossible. That is why it is important to determine which of this information is considered relevant because of the impact it has on the student learning process (Fig. 1).
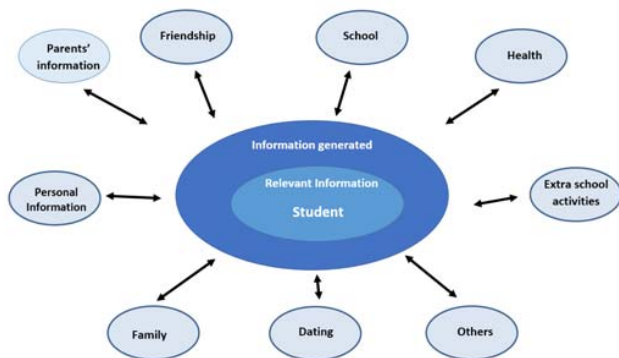

Fig. 1 Student environment

This research seeks to prove that it is possible to identify relevant information from a student to detect when they are at risk, and, then, propose a model which can adequately manage such information.

V. PROPOSED MODEL

This research was conducted in public General Middle Schools, zone 8, Tampico, Tamaulipas, Mexico, where first it was necessary to determine, because of their functions, which staffs within the school have more direct contact with students to be classified as source information actors. After consulting the organization manual of Middle School in Tamaulipas state [5], [6], there were selected: Principals, Vice Principals, staff DSEA and group tutors.

VI. RELEVANT INFORMATION

In order to determine the relevant information, 7 survey formats were developed for each of the posts; the design was based on literature review, consultation with experts in the field, teaching experience and in a series of tests that previously were done in order to ensure that the respondent answered what they were requesting. These surveys were applied to a sample of the staff selected as source of information. One of the questions asked them to mention, based on their experience and teaching career, what student information they consider relevant and useful to know that this offers to them. The rest of the questions requested statistical part and information flow within the school.

VII. RESULTS

By the moment schools where visiting, there were occasions to talk to some respondents and there was the possibility to expand the information collected on the surveys. As a result of these discussions, it was possible to distinguish that each person has their own ability to collect it. Some of they get the information by formal or informal talks with: students, parents or guardians of family, their partners or because they hear comments with coworkers. While other people get it using the observation, they pay more attention to their personal appearance, the face expression (they think this is a reflection of emotions), the content of school bags, their movements, among others.

In Fig. 2 the 38 points that make up the relevant student information given by respondents are here included.
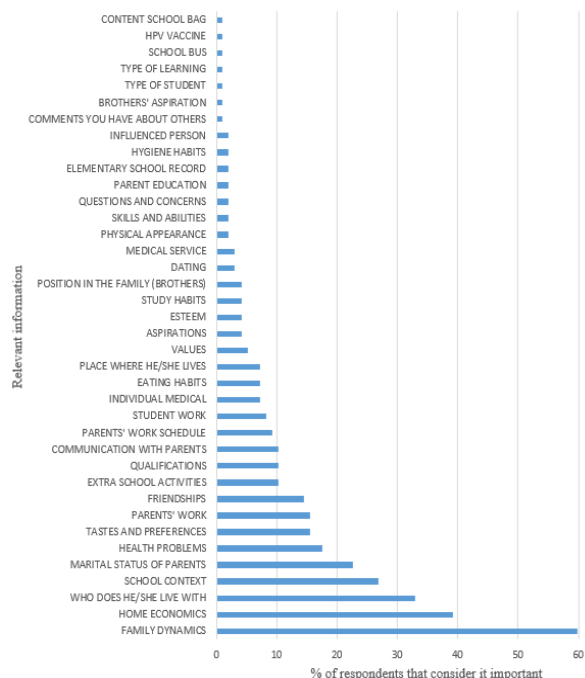

Fig. 2 Criteria in surveys that resulted relevant information

Family Dynamics is the criterion most often mentioned by respondents, it is also a concept that include other points also mentioned [7]. For this reason and because the rest of the criteria are easy to obtain in school life, it was decided to work in this research with the 38 points mentioned.

Once having relevant student information and the information source actors, it is possible to create a model for managing these two elements. Information flow attributes and restrictions necessary to operate the model will also be established. Furthermore, preventive alarm signals will be specified in order to early detect if the school performance and continuity of students within school system are at a potential risk and provide timely appropriate support.

Currently the research is in progress of creating a model, defining the way relevant information will be managed as well as developing formats for gathering information.

VIII. Conclusion

The survey results allow to state that staff in middle school believes that there is relevant student information. For this reason it is considered the creation of a model for managing this information. This would provide excellent support to the work of DSEA staff and tutors due to this is a way to early identify students which require support.

Also using this model it is possible to generate computing tools to manage and automate the model.

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