

## **App vocational orientation towards pedagogical careers at the University of Matanzas**

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### **ABSTRACT**

The objective of this work is to present a mobile application for the Android operating system, with the academic offer of the pedagogical careers of the 2024 school year studied at the University of Matanzas, which serves high school students as vocational orientation. We rely on research carried out by other authors that served to support the aspects dealt with. As empirical methods, interviews, observations, surveys and documentary analysis were used. As theoretical methods, the historical and logical, analysis and synthesis and systems approach were used. To verify the results, the mathematical method was selected: percentage analysis.

**Keywords:** Vocational orientation; Choice; Mobile device

### **Introduction**

Choosing a study or a profession is not easy, for this it is important to be well oriented, because it is not only to choose, but to choose well. Vocational orientation has recently positioned itself as one of the necessary tools to ensure a successful professional life. This involves the knowledge of different disciplines, such as psychology, pedagogy, business

administration, among others. Currently, vocational guidance is one of the areas that should be worked on the most with young people of pre-university age (Martínez, 2020).

Attention to vocational and professional orientation has been of utmost importance since the triumph of the Cuban Revolution. Since 1959, projects were designed to respond to this activity, due to the need to train workers, technicians and engineers in the most varied specialties. All this determined the emergence of plans aimed at the development of interests in the different specialties. It has been, since then until today, the school's responsibility to carry out vocational and professional orientation (Sánchez, Jaime and Gil, 2017).

The Ministry of Education (MINED, 1982), implements Decree No. 63 of the Executive Committee of the Council of Ministers and its regulations, put into effect by Ministerial Resolution No. 92/1982, where it was established that:

... It constitutes a task of teachers and professors of all subjects, to guarantee to the student the level of generalization of the acquired knowledge, to create interest in the possible application of each knowledge to the future working life and on this basis, to orient children, adolescents and young people towards the most necessary professions. (p. 3)

In 2000, the Ministry of Education (MINED, 1982) issues Resolution 700, which administratively regulates the guiding role of the school in the activities of professional orientation and vocational training, demanding a hierarchical character of this social institution.

In 2018, a regulation is released by the branch school specialist of the Ministry of Education (MINED, 1982), to strengthen vocational training and career guidance. With these regulations, it is possible to respond to the legal dispersion that existed in terms of training and guidance processes.

In Decree 364, which was published in the Official Gazette No. 10, in Resolution No. 202/2019, Article 7, the entities and organizations are given responsibility for vocational training and professional orientation with quality to students for their subsequent labor insertion (Official Gazette, 2020).

Therefore, the objective of our work is to provide students of higher education with a mobile application (apk), with the academic offer of pedagogical careers at the University of Matanzas (UM).

The topic of vocational guidance has a lot of academic literature and has attracted the attention of scientists since the beginning of the last century. Before giving a definition of vocational orientation, we will see what we understand by: orientation and vocation, in order to approach essential aspects of the concepts since they will condition our intervention proposal.

The concept of orientation is linked to the verb orient. This action refers to placing something in a certain position, to communicating to a person what he/she does not know and intends to know or to guiding a subject towards a place (Pérez and Merino, 2008).

The term vocation comes from the Latin word “voco” (to call). It also refers to the inclination that the subject manifests towards a profession or a specific career. In this sense Ortega y Gasset, has identified it with fondness, understanding that there is a firm desire for something, and even certain complacency with the exercise of it (Sánchez, 2003).

Reyes (2017), considers that the purpose of vocational guidance is “to provide indispensable tools for making assertive decisions that favor the construction of their own knowledge according to their vocation, tastes, interests and skills” (p. 7).

According to Vidal and Fernández (2009), vocational guidance “can be understood as a process that helps in the choice of a profession, the preparation for it, the access to the exercise of it and the subsequent evolution and progress” (p. 2).

For Salas, Alonso and Orue (2019), it consists of “providing the necessary elements to enable the best orientation for each student” (p. 2).

In the above definitions, the practice of vocational guidance is ensured, where the counselor may well be a support tool, which allows him/her to offer advice, assistance to students and helps them make decisions to progress successfully in their student and professional life.

In our case, vocational guidance is aimed at adolescents who are close to finishing high school and need some support in the process of clarifying where and which career to choose. However, it is not exclusive to students at this level of education; many times young people who have already started a university career or adults who already have a profession often resort to vocational guidance.

In this sense, vocational guidance consists of providing all the information that allows the individual to recognize his or her own interests, skills and areas of opportunity, or in some cases, also facilitating the recognition of the competencies that need to be strengthened in order to be inserted in a specific work context in the medium or long term.

There are different resources, techniques, tools, as it is called by those who research on the subject, among them we can mention: psychometric tests, such as WAIS, WISC-RM, BETA III, DOMINOES, among others (Martínez, 2020); Vocational and Professional Orientation Tests such as KUDER VOCATIONAL, KUDER PERSONAL, ZAVIC, THURSTONE, ALLPORT, etc.; Perception and Maturity Tests, BENDER, FROSTIG, FROSTIG II, HARRIS-GOODENOUGH, to mention some; on the other hand Projective and Personal Tests such as, TEST OF THE FAMILY, H. T.P., LÜSHER COLORS TEST, MACHOVER, websites to inquire careers (González, 2016; López, 2003; Tezoco, 2014; Sastre and Mai, 2021), among others.

In the case of Cuba, resources, techniques, tools are used among which we can mention: the circles of interest through the direct link with specialists in the different fields of study, the open doors to the University, meetings of higher level professors to higher secondary schools, books, brochures or folders with information about the careers, some of the tests and tests of the above mentioned and others developed in the country are applied, For example, we are UCI (University of Computer Science), based on Karl Hereford's Interest Test with a set of tests that, once completed, indicate the best university options based on your tastes, emotional intelligence and other parameters (Espinosa, Fresno and Remond, 2020).

## **Development**

As for the development of the work, techniques and procedures of the empirical level were used, such as documentary analysis, through the review of curricular documents such as study plans, the model of the professional, which allow characterizing the careers studied at the University of Matanzas and assessing how the vocational orientation of students is conceived. On the other hand, students of Pre-university, Polytechnic Institutes and Peasant Workers Faculty were interviewed to know if they received vocational

orientation and how. In addition, a survey was applied with the purpose of investigating if they are interested in having an updated tool that allows them to know about the pedagogical areas studied at the University of Matanzas. On the other hand, to check if they have the necessary conditions to make use of a mobile application.

In the evolution of our work, we were able to verify at first the situation of the students' lack of orientation towards the career to be chosen, who stated that they did not know where to study, and after applying some of the considerations used, we realized the need to guide them with a computer tool, for a choice of their future specialty.

The general results of the diagnosis carried out on the knowledge of the pedagogical careers studied at the University of Matanzas, showed that of the 366 students surveyed, 124 of them (33%) answered what they have, demonstrating the great lack of knowledge on the part of the majority.

This data allows us to affirm that the results validate the hypothesis that at the moment of applying for higher education, most of the students do not have enough information to choose a career. Other studies have shown that the percentage of those who decide to change their first choice is quite significant.

On the other hand, it was found that 297 students (81.1%) of the students surveyed have a mobile device, which shows that they have the conditions to consult the pedagogical academic offer from an apk.

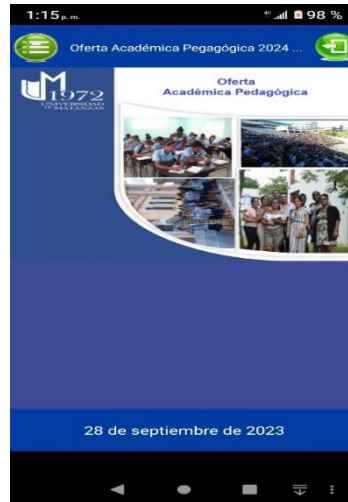
The above highlights the importance of the vocational orientation process and having an updated, flexible and easy to use apk that helps students to make a decision regarding the career to choose, where they can know the career objectives, the study plan and exit profile. Therefore, it becomes an important tool to maintain or increase student motivation, school performance and permanence in the Higher Education Institution.

The mobile application was designed and implemented for the android operating system with the academic offer of the pedagogical careers of the University of Matanzas for the school year 2024, which offers important information such as: object of the profession, professional problems, modes of action, spheres of action, fields of action, functions of the teacher and general objectives, which helps students to make decisions and choose careers.

The figures below show part of the apk interface.

Here we can see the main image of the apk, with two buttons at the top of the screen, one to access the options menu and the other to exit the application.

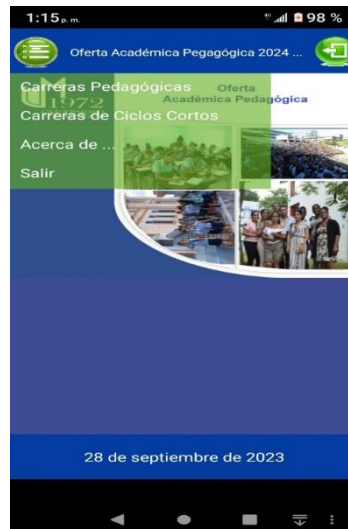
**Source:** Self elaboration



**Figure 1.** Main screen of the apk

Pressing the menu button displays a screen with the options available in the apk.

**Source:** Self elaboration



**Figure 2.** Options in the apk

The following image shows some of the pedagogical careers, which the student can consult to learn more about them.

**Source:** Self elaboration



**Figure 3.** Screen with options of the pedagogical careers studied at the UM

When selecting one of the careers, several screens will appear with important information about it, as mentioned above.

## Conclusions

The study of the art showed a low availability of solutions specifically applicable to the problem posed, however, it served as a basis to motivate us to implement the apk. For the development of the application we used free technologies and tools that provide it with a high technological value that provide the possibility of quickly and effectively extending new functionalities. A mobile application was developed for the Android operating system, with the academic offer of the pedagogical careers of the 2024 school year at the University of Matanzas.