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Which career should I choose? Application of a pre-university vocational guidance platform based on the Ikigai methodology

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Abstract
Choosing a university degree is a crucial decision in a person's life. However, many students have chosen their career without proper counselling. Ikigai refers to a Japanese concept that tries to find a person's purpose. This research explains the implementation and results of an online platform based on the Ikigai methodology. The Ikigai methodology was implemented through a sequential process. A total of 172 schools were surveyed, involving 1,878 students. The predictive phase asked about: what participants study, interests, hobbies, the social causes that motivate them and the future professions they are interested in. Subsequently, an individual graph is generated with scores in 15 subject areas. Based on the reports, the university sends a personalised proposal of possible university degrees to each student by e-mail. The Ikigi methodology is therefore a very useful tool that allows students to improve their self-knowledge and the effectiveness of their decision-making processes, among others.

Keywords: *Ikigai; career counseling; career choice; career guidance programs.*

1. Introduction

Career building has major implications for both the individual and society. An economically sustainable career involves costs during the various stages of education, which should be transformed into an investment and provide benefits by means of the employee's professional activity.

Choosing a career is one of the most difficult tasks students have to confront when completing secondary school, as it will largely determine their plans for the future. At this stage, it is very important for students to receive adequate information about their career path (Ehigbor and Akinlosotu, 2016). Many students have selected their careers without receiving adequate advice from professional services, and this can result in discrepancies between their academic performance, personality, interests and abilities. In order to provide recommendations to students on how to choose the right career, it is important to develop a referral system with which to guide them in their career choices (Razak et al., 2014).

The relevance of providing career guidance to students has been examined extensively in several works (Loan and Van, 2015; Gordon and Steele, 2015; Zunker, 2015). Career guidance counsellors can help individuals who are confronting career challenges (Whiston et al., 2017). Their experience in career development and labor markets allows them to analyze a person's qualifications, experience, strengths and weaknesses from a broad perspective, while taking into account the desired salary, personal hobbies and interests, location, labor market and educational possibilities (Savickas, 2019).

When evaluating career guidance programs, it is relevant to examine the methodologies used to deliver those programs. In this respect, Watts and Sultana (2004) examined the vocational guidance policies of 37 middle-income countries and found that that career guidance services were provided in various formats, such as individually, in groups, face-to-face or remotely (e.g. helplines and internet-based services).

Finally, Whiston et al. (2003) used meta-analytic techniques to compare different forms of intervention (e.g. individual career counselling, career guidance classes) and found that interventions that involved a counsellor were significantly more effective than interventions without a counsellor. In particular, they found that the combination of a computer system and a career guidance counsellor was more effective than allowing people to use only a computerized counselling system.

Technology in the form of websites, social media and apps has now extended the resources available to career counsellors. In this context, this work explains the implementation and results of an online platform based on the Ikigai methodology. More specific, this platform has been used as a vocational guidance tool for pre-university students in a region in Spain.

This project is the result of a strategic partnership between the educational administration and a public university.

2. Theoretical background

2.1. Ikigai and career guidance

Ikigai is a Japanese construct that is concerned with finding one's purpose in life or reason for being. Kondo (2007) states that Ikigai is "*a sense of purpose and willingness; an awareness that one is helping others, a sense that one has something to live for*" and that "this can also be felt when one is being acknowledged by others". With regard to this conceptualization, Kumano (2006) carried out a principal component analysis and found that the central concepts of Ikigai were life affirmation, goals/dreams, the meaning of existence, a sense of fulfilment and commitment.

Several pieces of research regarding the application of Ikigai to pre-university students have been carried out, and studies have shown that it may be a useful tool with which to help students identify their interests and goals, and plan their future careers (Eller, 2016; Hamzaid et al., 2022).

It is possible to state that the use of Ikigai is helpful for many reasons. It provides the student with a goal to strive for, and something more important than just momentary success to focus on. Alternatively, it could even be used simply as a means to guide oneself toward obtaining a degree or as a form of checklist for the education a student seeks to attain. In this context, while it is not absolutely necessary for one to explore, or even create, one's own Ikigai, it might be useful for students everywhere to look introspectively at why their education is relevant and why they are obtaining it (Eller, 2016).

In the context of career counselling, the Ikigai methodology is frequently represented as a Venn diagram comprising four circles: what you love, what you are good at, what the world needs and what you can get paid for. Finding the Ikigai is, therefore, believed to bring a sense of fulfilment and satisfaction.

3. Method and results

3.1. Methodology

In our work, the Ikigai methodology has been been implemented by employing a sequential process in collaboration with secondary school counsellors, as described in Figure 1 (see Figure 1). The students completed 4 questionnaires in the predictivie analytics phase, as describe in Table 1 (see Table 1).

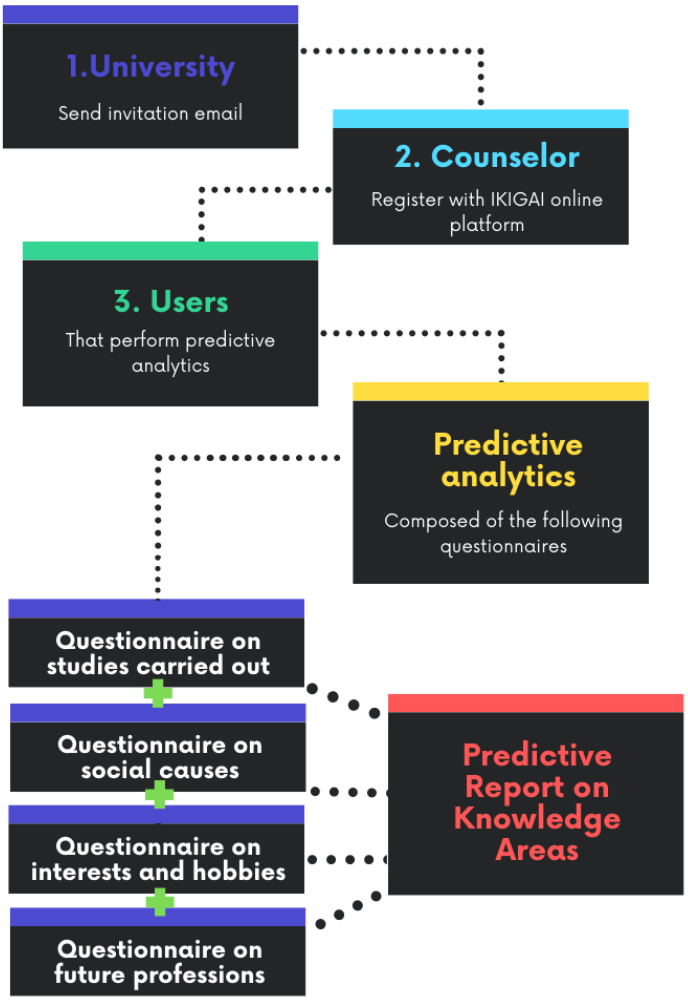

Figure 1. Ikigai implementation process. Source: The authors.

Each of the answers of these 4 questionnaires are linked to one or more of the 17 areas of knowledge that have been established, based on the 5 main branches of knowledge, after a process of research and co-design with specialists in the field of education and guidance. The calculation of the final result is carried out automatically in the tool through a mathematical algorithm that relates all the answers with the different percentage weights of each of the questionnaires and the areas associated with each of the answers, assigning a score from 0 to 100 to each area. These scores are reflected visually in a spider graph and the area or areas of knowledge that have achieved the highest score are presented in a table of vocational suggestions.

Table 1. Description of the questionnaires applied in the predictive analysis phase.

Questionnaire	Description	Question example
Academic Specilaisation	Questionnaire regarding what the participants were studying	Choose your current studies or the specialisation that corresponds most closely with them. (limited list of current studies in secondary school and professional education).
What you love and what the world needs	Questionnaire on interests and hobbies that motivate them in their daily life	Studying new languages for fun and not as an imposition. Thinking about the creation of new devices to be licensed and launched on the market
	Questionnaire on social causes that motivate them	Participating in campaigns to help homeless people. Fighting bullying among your classmates.
What they will pay for you (professional life)	Questionnaire concerning future professions of interest to them	Analyzing data using technology. Functioning of the brain in the learning process (neuroeducation).

Source: The authors.

3.2. Results

A total of 172 secondary schools were surveyed, with the participation of 1,878 students. As for the characterisation of the sample, they are all first and second year students in the upper secondary school. Figure 2 shows the percentage of respondents according to the area with the highest score for each of them. It can be seen that Education is the most repeated (54.01%), followed by computer technology (13.95%) (see Figure 2).

After completing the questionnaires, the online platform generates an individualized report for each student called a predictive report. Specifically, a graph is generated with scores related to 15 knowledge areas on a scale of 0 to 100 points. Examples of two students' predictive reports are shown in Figures 3 and 4.

In the case of Student 1 (see Figure 3), the predictive report shows a clear vocational orientation toward the field of computer engineering. As a second possibility, it indicates that this student also has a clear orientation toward marketing and advertising studies. In the case of Student 2 (see Figure 4), the predictive report indicates a clear vocational orientation toward tourism studies, followed by arts and humanities. The predictive report also indicates studies in education as a third vocational alternative.

The university uses the students' reports as the basis on which to create a personalised proposal of possible university degrees that will best suit the vocational profile of the pre-university student. This proposal is then emailed to each individual student.

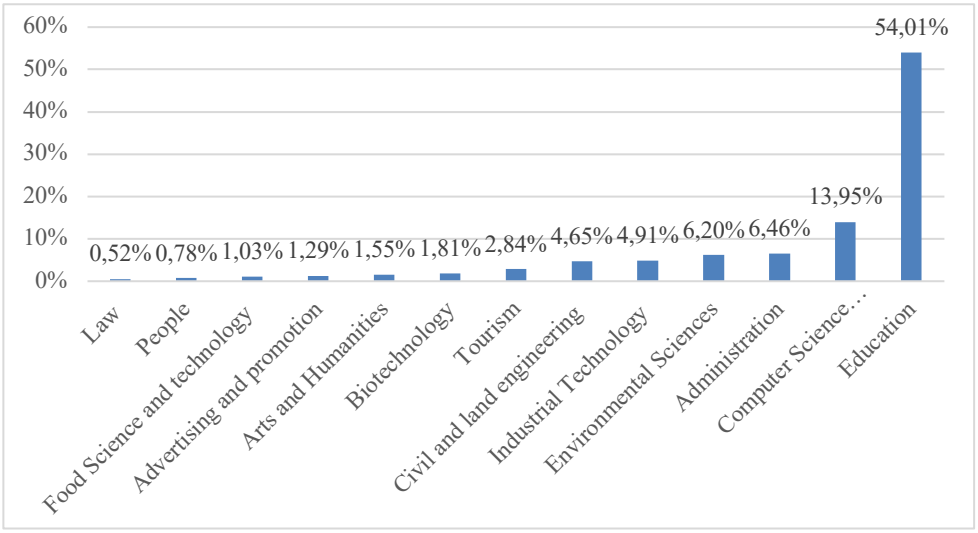

Figure 2. Sample profile according to the preferred area. Source: The authors.

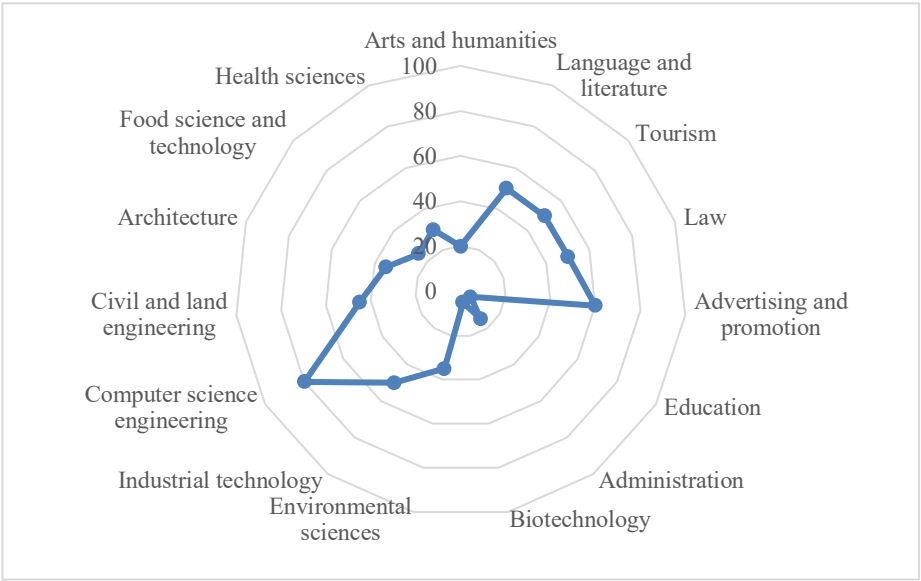

Figure 3. The predictive report of student 1. Source: The authors.

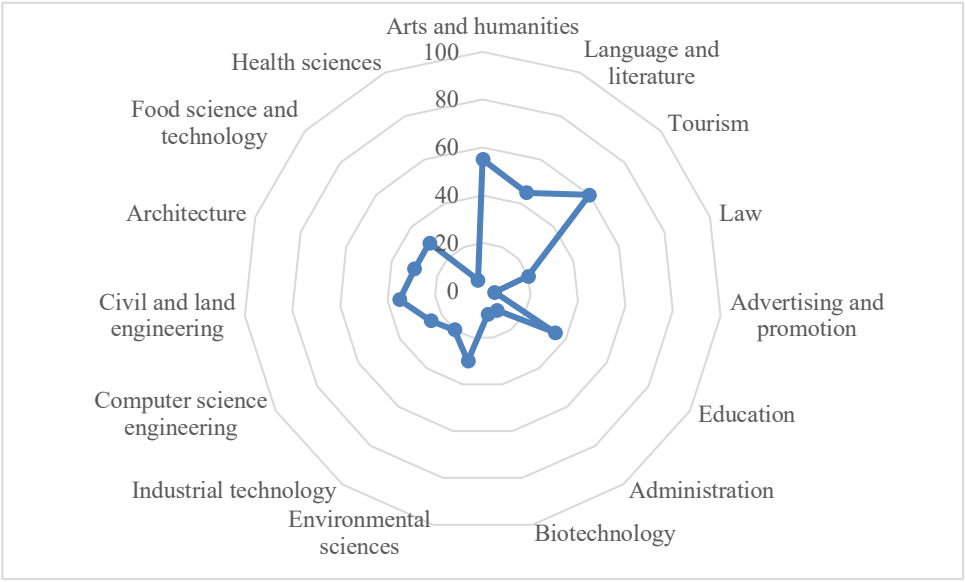

Figure 4. The predictive report of student 2. Source: The authors.

4. Conclusions

The experience gained after applying the Ikigi methodology to the vocational guidance process of secondary school students makes it possible to conclude that it is a very useful and operational tool. It particularly enables students to achieve the following objectives: improve their self-awareness, improve the efficiency of their decision making processes, obtain information of interest concentrated in a single report, obtain a brief and interactive assessment, and achieve immediate results.

Furthermore, the application of the Ikigai methodology provides a number of benefits to secondary school counsellors and improves the effectiveness of their work.. It particularly allows the following objectives to be achieved: (1) carrying out quick analyses that facilitate the counsellors' work, (2) automating part of the guidance work while keeping the importance of their mentoring intact, (3) monitoring progress in real time, (4) obtaining an overview of thestudents' preferences, and (5) using the data collected to generate statistics.

From the university's point of view, the main problem is that of correctly adapting its provision of degree studies to the vocational profiles proposed by the Ikigai tool. This adaptation requires intensive work that it is difficult to automate. Moreover, the increase in fields of knowledge and specialization planned by the administration in secondary education will imply a compulsory and complex process of readjustment in the areas included in the Ikigai tool.

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