

Engagement of Portuguese higher education students with online or computer-assisted career counselling systems: a predictive study

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Introduction

Most universities worldwide are now providing employment guidance to their students, such as Career Offices, i.e. Career Services or Employability Centers aimed at assisting students with their career development. Assessing students' career needs and intervention preferences, and then aligning these expectations with the skills development at university career centers is a vital implication for all parties involved – universities, students and future employers in the pursue of a better workforce (e.g., Crowne, et al., 2020; Vinson, et al., 2014). Considering the fact that the provision of face-to-face career guidance services is universally limited due to time allowance and personnel number (e.g., NACE, 2017 reports an average of 4 employees to around 1800 students), online services seem beneficial in a sense that they can be provided to a larger number of students and at their convenient timing. Students, as the target audience of Career Offices, are young people who actively use the Internet nowadays and because of being generally technology-savvy, they seem to have certain expectations that services and information should be available to them any time and place (Venable, 2010). Nevertheless, it is very important to understand if the added values of online career and counseling are also understood in this way by its users (i.e. the students). The present work aims to identify and prioritize current career needs of students enrolled in Portuguese universities. More specifically, it aims to understand how career offices should adapt in order to align with the needs of the service recipients and whether nowadays online interventions are of demand among students.

Participants



89 Portuguese HEIs - private = 239, 66%
361 Portuguese students - female = 281, 77.8%
17 to 60 years old ($M = 24$, $SD = 6.8$)



Bachelor's degree ($n = 170$, 50%) and Master's degree ($n = 171$, 47%)
Several fields of knowledge: Social and Behavioral Sciences ($n = 221$, 61%), Humanities, Law or Educational Sciences ($n = 86$, 24%) and Business Sciences ($n = 22$, 6%)

Career Offices in Higher Education: Needs Assessment Questionnaire



Knowledge about the Careers Offices of your Higher Education Institution: whether students are aware of the existence of a Career Office at their HEI, how they obtained this knowledge, and if they have ever used its services



Preferred Career Intervention Modality: list of 10 options from which students select the preferred three in terms of career intervention (e.g., individual or group career counseling sessions, in-person or online career counseling sessions, employability workshops and mentoring)



Career Needs of Higher Education Students: list of 23 career needs (1 = no need and 4 = high need); **Own Career Needs:** list of 23 career needs, from which students select the five that best represent their current support needs



Joining Online Career Services: a single item (Net Promoter Score) to assess the probability of the students' adherence to an online or computer-assisted career counseling service, if it were made available by their institution

Data collection and analysis procedure

Data was collected between January and August 2021. The purpose of the study, the informed consent, the assessment instrument and a brief sociodemographic questionnaire was sent by email and posted on social networks. The average time to complete the assessment protocol was 8 minutes. Descriptive analysis and three decision trees were developed on the likelihood of attending an online or computer-assisted if it were provided by the Career Office of their respective universities/colleges (IBM SPSS Decision Trees 26) using the CHAID method (chi-squared automatic interaction detector algorithm).

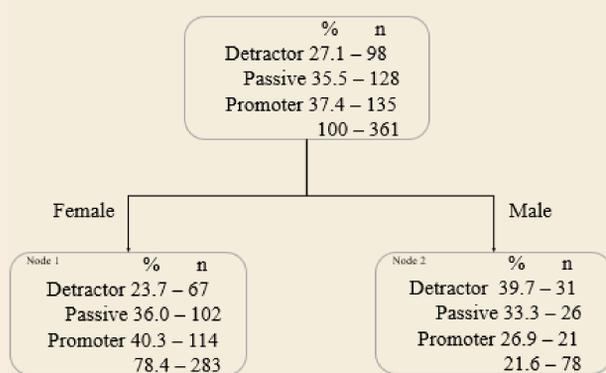
Results

Most preferred career intervention modalities: Online information about internship and/or job opportunities ($n = 230$, 64%), in-person individual guidance and counseling sessions ($n = 187$, 52%), career mentoring programs/sessions ($n = 185$, 51%), Career events ($n = 15$, 44%) and in-person workshops ($n = 147$, 41%)

Students' likelihood of joining an online or computer-assisted career counseling service: mean score of 7.53 ($SD = 2.197$, $Min-Max = 0-10$)

- Detractor attitude: 98 (27%); Passive attitude: 128 (36%); Promoting attitude: 135 (37%)

What would be the probability for you to attend and online and computer-assisted career guidance?

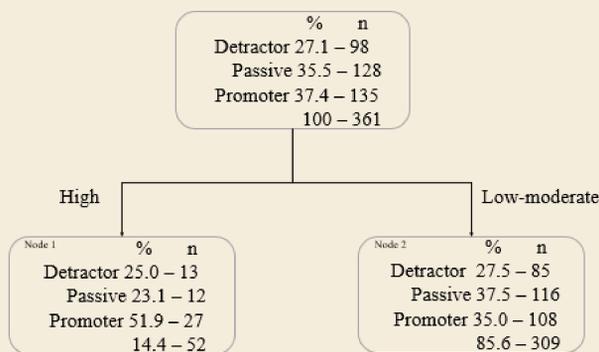


Gender: $\chi^2(2) = 8.577, p = .041$

(i) Decision tree with sociodemographic variables

Female students are more likely to be promoters (40.3%) of this type of service and male students are more likely to be 39.7% detractors risk estimate of .598 ($error = .026$)

What would be the probability for you to attend and online and computer-assisted career guidance?

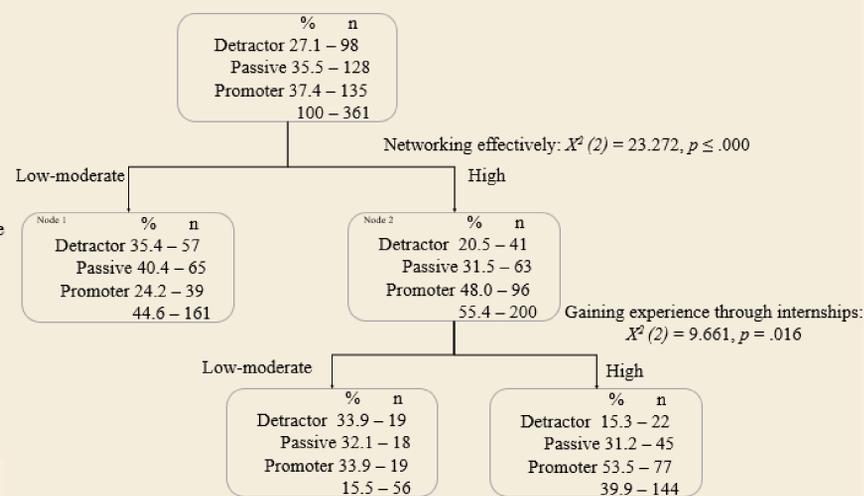


Supporting the soft-skills development: $\chi^2(2) = 6.157, p = .046$

(ii) Decision tree with the variables of own career needs

Supporting the soft-skills development is the best predictor; for those with "low-moderate need", their behavior towards using an online career service is mostly passive (37.5%), while those with "high need" tend to adopt mostly a promoting behavior (51.9%) risk estimate of .604 ($error = .026$)

What would be the probability for you to attend and online and computer-assisted career guidance?



(iii) Decision tree with the career needs of higher education students

Networking effectively is the best predictor – in "low-moderate need" 40.4% of students take a passive behavior; in "moderate to high need", the model includes one more predictor – gaining experience through internships; in "low need" 33.9% of students have a promoting behavior; in "moderate to high need" 53.5% have a promoting behavior risk estimate of .554 ($error = .026$)

Discussion and conclusion



- Most students are interested in receiving online career information, but the most preferred modalities of intervention are nevertheless the in-person (Crişan, et al., 2015; Pinto et al., 2016; Pinto, 2019). In terms of possible online career interventions, online individual counselling sessions are the top preferences by respondents
- Being a female student, having access to internship opportunities, learning how to network effectively and developing soft skills are the best predictors for the engagement in the use of these types of services
- The results suggest possible difficulties in using the online format for higher education students. Online and computer-assisted career guidance is more likely to be more effective if combined with face-to-face counselling (Galliot, 2017), even though providing services "with the right mix of technology and human contact" (Venable, 2010, p.94) can be a difficult goal to achieve
- Career Offices should not become disengaged and out of reach entities, but instead be open for the dialogue with the service recipients in order to contribute to the promotion of students' employability by adapting the range of the services and creation of targeted career guidance programs, including online interventions.

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