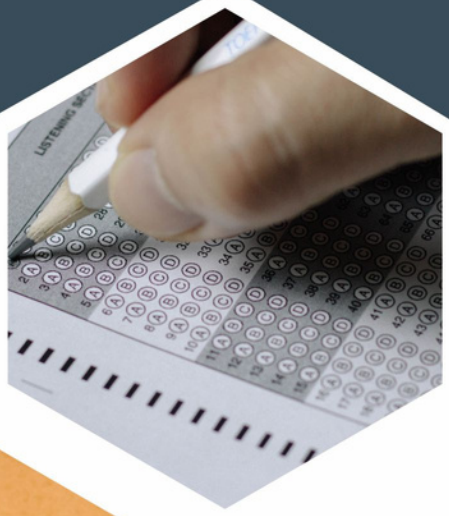
Co-funded by
the European Union



STUDENT MOTIVATION ASSESSMENT PLAN

critical
TECHVETLAB
thinking

IKASIA TECHNOLOGIES
redREE making projects
smallcodes
IES ENRIQUE TIERNO GALVÁN
ΕΠΑ.Λ Κ. ΑΧΑΪΑΣ
académie Clermont-Ferrand
greta du VELAY
SOMATICA MATERIALS & SOLUTIONS
W4A

This document is a result of the project:

TECHVETLAB: □a solution for postcovid-19 laboral market through a technical training of vet students with obstacles

This project has been funded with support from the European Commission.
This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Co-funded by the European Union

All the images used are free of rights.

Subject to creative commons license: This document is subject to a license that allows others to download and share them with others as long as they credit the authors, but they can't change them in any way or use them commercially

INTRODUCTION

The methodology Being a part of it, BPI, developed in the framework of the project Erasmus + 2021-1-ES01-KA220-VET-000029545 TECHVETLAB: A SOLUTION FOR POSTCOVID-19 LABORAL MARKET THROUGH A TECHNICAL TRAINING OF VET STUDENTS WITH OBSTACLES, as other teaching methods based on projects or case analysis, such as Case-based learning, CBL, is expected to promote in students a special motivation for learning. It is also expected the development of transversal skills such as autonomous learning techniques, group work, oral and written expression, critical thinking and others that will be important in their vocational studies and in their later professional career.

That is why we propose the application of BPI methodology at the beginning of vocational training studies. Students in a VET classroom, led by their teacher, are going to carry out an engineering project proposed and supervised by a technology company, as if they were a development department of the company.

This is an opportunity to evaluate how being for a period of time (certainly short in the case of these pilot tests) immersed in this project generates in the students an additional motivation towards VET studies and in general towards technological innovation.

The study and evaluation of motivation in students at any level of education is a basic aspect of the educational process since much of the success in the teaching-learning process depends on factors related to motivation [Reigeluth 2016]. The analysis of motivation in students to be conclusive regarding the effectiveness of a particular methodology needs a model that articulates the evaluation. In this sense the ACRS (Attention, Confidence, Relevance, Satisfaction) model proposed by Keller in 2010 provides a structure for assessment based on his conception of the motivational design of learning. This procedure allows the teacher to analyze student motivation in response to the introduction of a given teaching material. The procedure is applicable to students from different educational systems, from high school to university [Keller 2010, Rodríguez Bailón 2021]. The model proposes four fundamental elements in motivation: attention, confidence, relevance and satisfaction. The attention element refers to how the methodology or teaching materials are able to capture the curiosity, enthusiasm and interest of the students, making the student have an active attitude towards learning due to the novelty it implies for him/her. Relevance has to do with how the student connects the teaching materials and methods with his learning needs, his/her goals and previous experiences and also with his/her preferences in relation to the study. Confidence has to do with the feeling of personal control and the expected success at the end of the learning process with the methodology used. Satisfaction refers to the positivity with which the student faces the learning process.

These four fields of analysis are evaluated by means of a survey in which the student is asked a series of statements with which he/she agrees or disagrees with a numerical value from 1 to 5. Part of these questions refer to each of the fields in such a way that finally a numerical value and an uncertainty for each of the fields can be obtained to compare the results of an analysis group with a control group.

Hypothesis

The hypothesis of the study is that the fact of starting vocational training studies by participating in a development project proposed by a company will be an important motivating factor for students in their future studies in the vocational training center and their future career.

Method

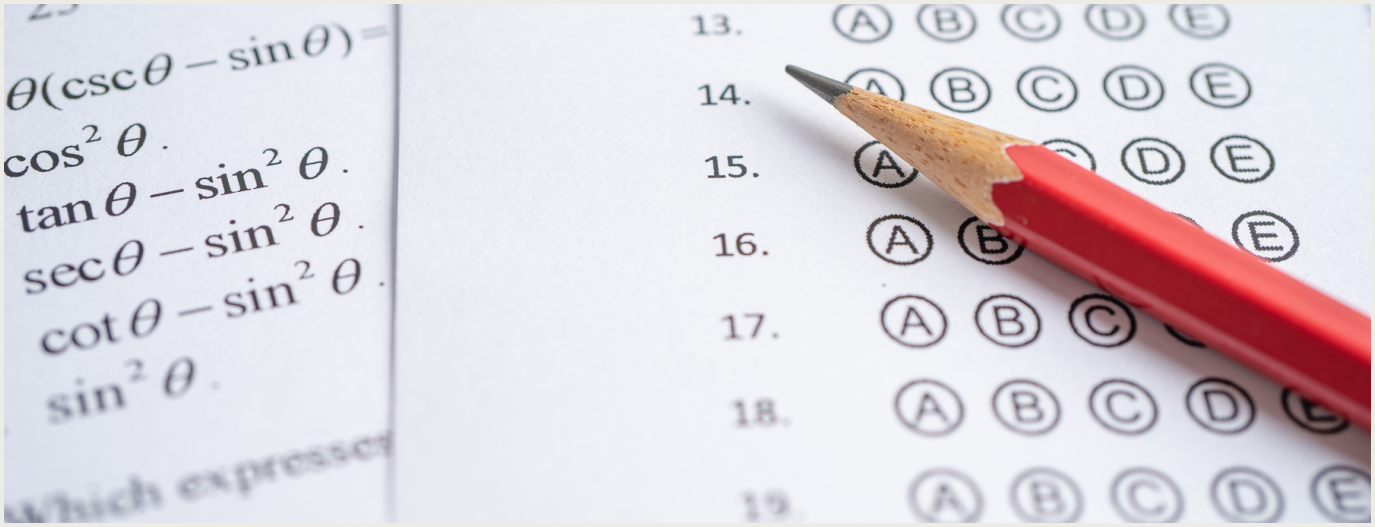
The study includes in each of the centers a group in which the pilot test will have been carried out with the BPI methodology and a control group of the same educational level. The responses will be anonymized and will be collected in two sealed envelopes corresponding to the analysis group and the control group.

The study seeks to answer the question: Does the fact of having carried out the internship following the BPI methodology have a positive influence on the student's motivation for their vocational training studies?

It is based on a survey of 34 questions, following the ACRS model of the "Course Interest Survey" (Keller 2010), adapting the language of the questions posed to the level of studies corresponding to the beginning of vocational training studies.

Responses are rated with a score:

- 1: Not true.
- 2: Slightly true.
- 3: Moderately true.
- 4: Mostly true.
- 5: Very true.



	1	2	3	4	5
1. The instructor knows how to make us feel enthusiastic about the subject matter of this course.					
2. The things I am learning in this VET course will be useful to me.					
3. I feel confident that I will do well in this VET course.					
4. This class has very little in it that captures my attention.					
5. The teachers make the subject matter of this VET course seem important.					
6. You have to be lucky to get good grades in this course.					
7. I have to work too hard to succeed in this course.					
8. I do NOT see how the content of this VET course relates to anything I already know.					
9. Whether or not I succeed in this VET course is up to me.					
10. The teachers create suspense when building up to a point.					
11. The subject matter of this VET course is just too difficult for me.					
12. I feel that this course gives me a lot of satisfaction.					
13. In this class, I try to set and achieve high standards of excellence.					
14. I feel that the grades or other recognition I receive are fair compared to other students					
15. The students in this class seem curious about the subject matter.					
16. I enjoy working for this course.					
17. It is difficult to predict what grade the teachers will give my assignments.					
18. I am pleased with the instructor's evaluations of my work compared to how well I think I have done.					
19. I feel satisfied with what I am getting from this course.					
20. The content of this course relates to my expectations and goals.					
21. The teachers does unusual or surprising things that are interesting.					
22. The students actively participate in this class.					
23. To accomplish my goals, it is important that I do well in this course.					
24. The teachers use an interesting variety of teaching techniques.					
25. I do NOT think I will benefit much from this course.					
26. I often daydream while in this class.					
27. As I am taking this class, I believe that I can succeed if I try hard enough.					
28. The personal benefits of VET studies are clear to me.					
29. My curiosity is often stimulated by the questions asked or the problems given on the subject matter in this class.					
30. I find the challenge level in this course to be about right: neither too easy not too hard.					
31. I feel rather disappointed with this VET course.					
32. I feel that I get enough recognition of my work in this course by means of grades, comments, or other feedback.					
33. The amount of work I have to do is appropriate for this type of course.					
34. I get enough feedback to know how well I am doing.					

Scoring guide for the Course Interest Survey

Attention	Relevance	Confidence	Satisfaction
1	2	3	7(reverse)
2 (reverse)	5	6 (reverse)	12
10	8 (reverse)	9	14
15	13	11 (reverse)	16
21	20	17 (reverse)	18
24	22	27	19
26 (reverse)	23	30	31 (reverse)
29	25 (reverse)	34	32
	28		33
* There are questions posed in negative form, the assigned values should be taken in reverse order, i.e. 1 is 5, 2 is 4 3 is 3, 4 is 2 and 5 is 1.			

Data analysis

The mean values of the scores assigned by the students will be used, obtaining an evaluation for each of the fields and the sum of the four will be considered the final evaluation of motivation.

REFERENCES

Keller, J.M. Motivational Design for Learning and Performance: The ARCS Model Approach; Springer: Berlin/Heidelberg, Germany, 2010.

Reigeluth, C.M. Instructional Theory and Technology for the New Paradigm of Education. Rev. Educ. Distancia RED 2012, 32, 1–18. Available online: https://revistas.um.es/red/article/view/270781 (accessed on 30 May 2023).

Rodríguez-Bailón, M.; Fernández-Solano, A.J.; Merchán Baezo, J.A.; Vidaña-Moya L. From Clinical Practice to the Classroom. Advantages and Disadvantages of Video and Paper Cases on the Motivation and Clinical Reasoning of Occupational Therapy Students, Int J Environ Res Public Health 2021, 18, 9671 https:// doi.org/10.3390/ijerph18189671

AUTHORS

Laura Gómez Estrada
José Luis Gómez Ribelles
Luis Gómez Estrada
Luis Amaro Ribeiro Martins
Ricardo Sixto Iglesias
Raquel Navarro Cerveró
Jivago Serrado Nunes
Silvia Randaccio
Carlo Zoli
Luca Pietra
Pierre Carrolaggi
Panagiotis Karampelas
Dimistrios Fligkos
Juan B. Tormos Capilla
José Juan Seijo Solaz
José Manuel Piqueras Ruiz
Vítor Correia