A Future-Oriented Entrepreneurship Education Process: The FRESHconsult Project

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Abstract

Universities need to keep up with the ever-changing needs of younger generation of students both in terms of future-oriented content for their study programs and also with students' preferences, beliefs and views that make conventional pedagogical methods no longer viable. The purpose of the research is to evaluate to what extent the adoption of an innovative teaching model, based on the FRESHconsult project proposed by Dragusin et al. (2019), would be appreciated by students in learning design thinking. Thus, the study involved a quantitative research, using as main instrument a questionnaire which recorded a total of 118 responses. Emphasis was put on identifying the link between overall satisfaction and the perceived level of utility and difficulty supposed by the involvement in this project. The results showed that students were more than happy being part of an experiential learning context, and surprisingly, tasks difficulty and the high workload did not negatively influence overall satisfaction as long as the utility of the learning process registered a high level. At the same time creating a context for student being under pressure and facing difficult situation can help them in exceeding their individual creative boundaries.

Keywords: teaching model, HEIs, FRESHconsult project, entrepreneurship education, design thinking

JEL Classification: I23, A20, L26

Introduction

Not only business environment is subject to a permanent change, but also Higher education institutions (HEIs) must continuously innovate in terms of curriculum and pedagogy methods used. Universities success will be based on how they manage to predict future societal needs and student requirements and to what extent they will respond them with the educational programs they offer (Parrish, 2016). Research in the education field highlights that the role of universities is increasingly to create attitudes, beliefs and cognitive skills that will allow their

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students to respond challenges and adapt to a constantly changing environment (Parrish, 2016). Studies conducted by Dragusin et al. (2018) showed a high interest of younger generation of students to interact with real aspects of the economy and to exercise and practice their skills in real-life contexts. Thus, it is important to note that pedagogical preferences of Generation Y differ considerably from those of Generation X, particularly because they want "authentic experiential learning" that simulates the real world, they want to be involved in "a meaningful work" but they are lacking in critical thinking skills (Parrish, 2016).

The purpose of the current research is to describe and evaluate a new teaching method represented by FRESHconsult project which is meant to answer the needs of younger generation of students both in term of content and pedagogical techniques. Especially when it comes to critical thinking, this competence is vital in fulfilling work tasks as well as for an entrepreneur who has to make informed and fast decisions in an ever changing context (Arazo, Wattanatorn and Tagong, 2018). Starting from the theoretical teaching model proposed by Dragusin et al. (2018) of Augmented Interaction Academia - Business Environment, and considering the importance of critical thinking needed by our students, a new set of activities and methods to complete them was developed at the Design discipline. Precisely, based on FRESHconsult project, described by Dragusin et al. (2019), specific Design Thinking activities have been planned to be carried out by teams of students. In this way this research continues the discoveries of Dragusin et al. (2018; 2019) by putting into practice and recording students' feedback on the new teaching model involved by FRESHconsult project. Thus, a total number of 377 students in the 3rd year of study in The Business and Tourism Faculty of The Bucharest University of Economic Study formed 85 teams and chose 76 companies on which they developed their design thinking skills by offering generic consulting services as part of the FRESHconsult project.

Literature review

Previous research showed that experimental learning is often associated with the concept of Entrepreneurship Education (EE). Definitely EE has a significant role in encouraging entrepreneurship among students (Dragusin et al., 2018) and in developing critical thinking skills, but most of the time EE is taught "too rational, managerial oriented and focused on a design-then-execute didactic" (Nielsen and Stovang, 2015; Rae et al., 2009), lacking in the creative part so needed in the daily experience of an entrepreneur who must anticipate the unseen future. In this regard, design thinking as it is called in recent literature, is a central element in EE's success and development (Nielsen and Stovang, 2015) which has an essential

contribution in identifying new opportunities and accomplishing the objectives of a business. Sometimes giving up the rational and formal method of teaching EE by taking advantage of the sensitivity of designers and their methods can be the solution in solving the problems encountered by entrepreneurs (Nielsen and Stovang, 2015). This perspective do not minimize the importance of formal EE in creating knowledge, skills and improving student behavior and attitude (Dragusin et al., 2018) but highlight the tools by which EE outcomes can be exponentially enhanced. Teaching with emphasis on theoretical aspects is proving increasingly inefficient in the case of younger generation of students (Parrish, 2016; Dragusin et al., 2018). Thus, FRESHconsult project is a possible solution in transforming students from information receivers into generators of new ideas and solution for the modern business environment (Dragusin et al., 2018). Two innovative teaching models are identified and presented below that are meant to fulfil the learning needs and preferences of younger generation of students by covering both EE and Design Thinking topics.

DesUni teaching model

The DesUni model indicates a change in terms of content, teaching methods, assessment and the teacher-student relationship (Nielsen and Stovang, 2015). This model focuses especially on the use of design thinking in EE and can be applied to different disciplines, as is described in a synthetic way in the following table:

Table 1

Main pillars of DesUni teaching model

Objectives	To make students think and act as designers and not to become designers
Targets	Students of EE at universities, and can be extended
Results	To deliver EE based on design thinking
Content	Design knowledge, exploration and discoveries
Method	Design methods and facilitating teaching

Source: Adapted after Nielsen and Stovang, 2015

The Model of Augmented Interaction Academia - Business Environment (MAI-A-BE)

The MAI-A-BE model involves stimulating the entrepreneurial spirit, the creativity and the innovative thinking among students, as well as improving the connection between the academia and the business environment by offering free generic consulting services (Dragusin et al., 2018). This EE teaching model is based on an experimental learning method and is briefly described respecting the same structure as the previous one:

Table 2

Main pillars of MAI-A-BE teaching model

Objectives	Enhancing students' entrepreneurial spirit during teaching; strengthening the relation between academia and the business environment through free generic consultancy for entrepreneurs
Targets	University students and can be extended
Results	Create a new and a more effective approach in EE
Content	EE, creativity, innovation, problem solving knowledge
Method	Students learn from real-life contexts, acting as consultants

Source: Adapted after Dragusin et al., 2018

If the DesUni model remained a theoretical one with an important relevance in understanding Design Thinking utility in EE, the MAI-A-BE model was transposed into practice and explained in details by the FRESHconsult project initiated by the professors at the Entrepreneurship course as a pilot project in which were engaged 176 students and afterward extended to several disciplines within the Faculty of Business and Tourism in The Bucharest University of Economic Studies. Specifically, at the Design and aesthetics discipline, students passed through a design thinking process where they offered free generic consultancy to entrepreneurs or companies using certain procedures such as visualization, observation, brainstorming, concept development, prototyping in teams of 3-5 students. Applying this learning model for the first time made it necessary to evaluate students' satisfaction and also its relation with the perceived level of difficulty and utility of what they learned.

Research methodology

Given the FRESHconsult project described above, extended to Design and Aesthetics discipline with a focus on developing critical thinking skills among

students, the purpose of the present research was to evaluate the success of this model and to propose possible improvements. A number of research objectives were set: (1) identifying the overall satisfaction level of students involved in the FRESHconsult project; (2) assessing the level of difficulty involved by this project; (3) measuring the utility perception of the project for the students; (4) observing the relation between satisfaction - difficulty level - perception of utility and identifying improvements for better applying the model in the future. In order to meet these objectives, a statistical survey was carried out in January 2019, which used as main research tool an online questionnaire that was distributed among all the students in the 3rd year studding Design and aesthetics at the Faculty of Business and Tourism in The Bucharest University of Economic Studies. From a total of 377 students who were involved in the FRESHconsult project in Design Thinking, 118 students answered the questionnaire, in a random selection, completing the questionnaire being voluntary and anonymous. Data analysis and interpretation of results was enhanced with SPSS using descriptive statistics, histograms and frequency analysis. Moreover, as a basic technique was used crosstabulation to identify the relation between different variables. Precisely, the focus was on the extent in which the difficulty level, respectively the perceived utility, influenced the overall satisfaction of the students involved in the FRESHconsult project.

Results and discussion

Based on the recorded responses, the values of the three variables of interest - overall satisfaction, difficulty and utility - were analyzed. It turns out that students were satisfied with their participation in the FRESHconsult project, which has a level of difficulty above the average activities, but with a high level of utility in terms of knowledge and skills acquired as results from the descriptive statistics below:

Table 3

Descriptive statistics for overall student satisfaction and perceived level of difficulty and utility

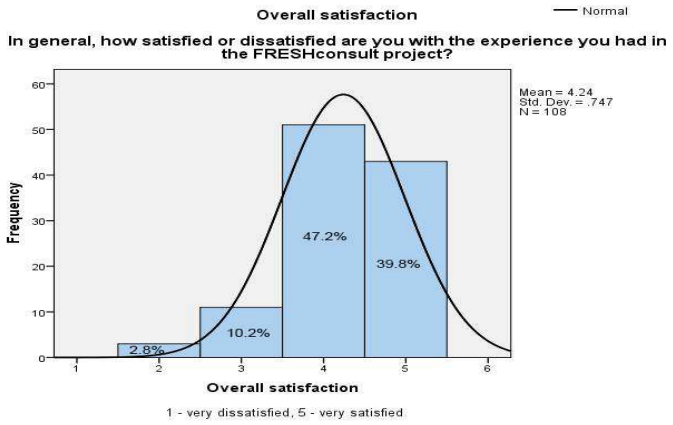
		Overall satisfaction	Difficulty level	Utility level
N	Valid	108	115	115
	Missing	10	3	3
Mean		4.24	5.29	7.23
Median		4.00	5.00	7.00
Mode		4	3[a]	8
Std. Deviation		.747	2.171	1.960
Variance		.558	4.715	3.843
Minimum		2	1	0
Maximum		5	10	10

a. Multiple modes exist. The smallest value is shown

Source: Data analysis using SPSS

It is observed that a vast majority of 87% of the respondents were satisfied and very satisfied with the experience of being involved in the FRESHconsult project, while 10.2% showed a neutral approach and only 2.8% were dissatisfied. This is mainly because of students' pleasure in working on a practical project that forces them to interact with the real world and encourages them to think and come up with their own solutions to the problems they identified.

Figure 1



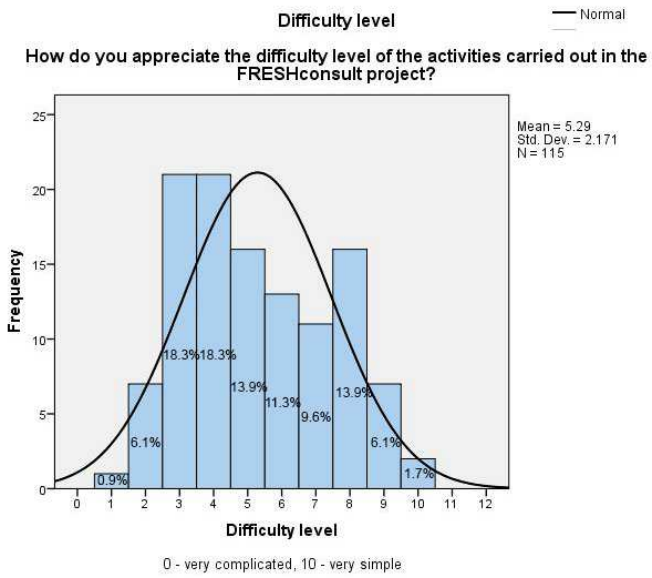
Source: Data analysis using SPSS

A detailed analysis of the open responses regarding what students enjoyed in being involved in the FRESHconsult project and should be continued revealed a series of answers that are repeated in different forms such as: "through the project we had to put our mind to work […] to develop our creativity", "it is a practical project, and we need such activates which helped us to develop important skills", "I find it very interesting and useful to apply design thinking process on real businesses […], stimulating our creativity and ability to work in teams", "the project helped us to understand the real problems in the market", "the fact that we had to come every time with our perspective, to be creative and to find our own solutions was exciting", "the project in general was an interesting one and I think it is helpful for those that want a job in marketing, innovation or sales", "I liked that everything that was said and presented in the project helped me to better understand the activity of the firm, which is a useful thing", "it was something new, I managed to learn interactive and interesting procedures, ways to solve problems and I think it will be useful in the future".

Result 1: Carrying out a consulting project as a seminar application, such as the FRESHconsult project, on a real firm is one of the efficient learning methods adapted to the needs and preferences of younger generation of students and can significantly contribute to their satisfaction level.

If, in what concern student satisfaction the general opinion is clearly a homogeneous one, the same cannot be said when it comes to the perception of difficulty and the effort involved as being part of the FRESHconsult project. Therefore, 57.5% of respondents considered the project to have a high - to medium degree of difficulty, while only 42.5% considered it to be relatively an easy project. This aspect was also found in the comments regarding the negative aspects noticed by students during the implementation phase of the project, aspects that could be improved in the future: "too much work", "the project is pretty complex and time limited", "the difficulty of this project should be reduced", "there were things that I didn't like and what bothered me was the level of work on this project", "the fact that we had to interact with the firm, it was difficult to find a firm willing to cooperate".

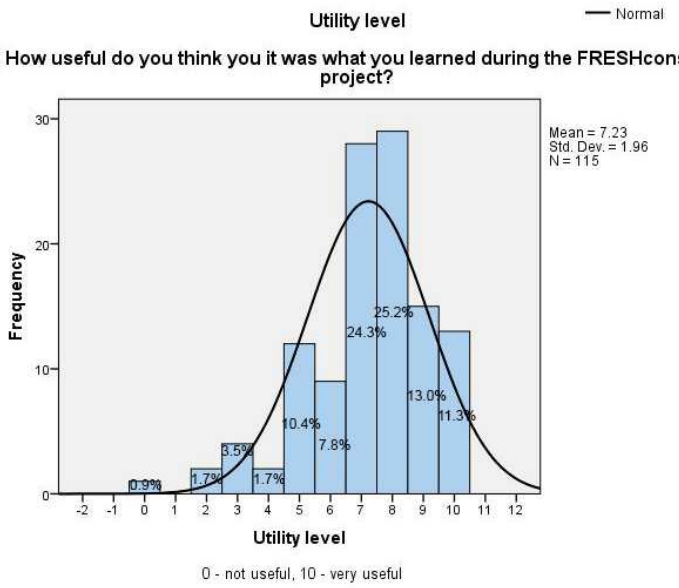
Figure 2



Source: Data analysis using SPSS

In order to achieve the research objectives, the third variable was examined – as the level of utility perceived by students involved in the FRESHconsult project. It turned out that 92.2% of the respondents assessed this project as being useful in developing the knowledge and skills needed during their studies. Students especially appreciated the interaction with real situations that companies were facing and creating the context in which they were the ones that had to come with solutions, to select the best ones and to turn them into concepts and prototypes. A detailed description of the utility perception is shown in the following histogram.

Figure 3



Source: Data analysis using SPSS

To better understand the extent and how the perception of difficulty and utility influence the overall satisfaction of students involved in the FRESHconsult project, a crosstabulation was made between satisfaction - difficulty level and satisfaction – utility level. The results indicates the relation between the analyzed variables and it is important to observe the following 2 aspects:

Result 2: A high level of difficulty of tasks and activities needed to be performed in completing the project does not lead to a low level of satisfaction, but it can be observed that in the FRESHconsult project, even the students who considered the project rather a complicated one had a high overall satisfaction level. These situation can be explained by the fact that pressure and difficult situation themselves can help students in exceeding their individual creative boundaries.

Result 3: Student satisfaction and their involvement in learning activities is considerably higher when the perceived utility level is high and very high. In the case of this experiment it can be said that the perception of utility is

considerably more important than the perception of difficulty in determining the level of overall satisfaction.

Table 4

Overall satisfaction of students involved in FRESHconsult project by level of difficulty and utility

			Overall satisfaction		
			Count	Column N %	Table Total N %
Difficulty (Binned)	Complicated (0-4)	Very dissatisfied	0	0.0%	0.0%
		Dissatisfied	1	2.2%	0.8%
		Neutral	**7**	**15.6%**	**5.9%**
		Satisfied	**25**	**55.6%**	**21.2%**
		Very satisfied	**12**	**26.7%**	**10.2%**
	Neutral (5)	Very dissatisfied	0	0.0%	0.0%
		Dissatisfied	1	6.2%	0.8%
		Neutral	0	0.0%	0.0%
		Satisfied	**6**	**37.5%**	**5.1%**
		Very satisfied	**9**	**56.2%**	**7.6%**
	Simple (6-10)	Very dissatisfied	0	0.0%	0.0%
		Dissatisfied	1	2.2%	0.8%
		Neutral	2	4.4%	1.7%
		Satisfied	**20**	**44.4%**	**16.9%**
		Very satisfied	**22**	**48.9%**	**18.6%**
Utility (Binned)	Useless (0-4)	Very dissatisfied	0	0.0%	0.0%
		Dissatisfied	2	22.2%	1.7%
		Neutral	3	33.3%	2.5%
		Satisfied	4	44.4%	3.4%
		Very satisfied	0	0.0%	0.0%
	Neutral (5)	Very dissatisfied	0	0.0%	0.0%
		Dissatisfied	1	9.1%	0.8%
		Neutral	3	27.3%	2.5%
		Satisfied	5	45.5%	4.2%
		Very satisfied	2	18.2%	1.7%
	Useful (6-10)	Very dissatisfied	0	0.0%	0.0%
		Dissatisfied	0	0.0%	0.0%
		Neutral	3	3.5%	2.5%
		Satisfied	**42**	**48.8%**	**35.6%**
		Very satisfied	**41**	**47.7%**	**34.7%**

Source: Data analysis using SPSS

The high level of student satisfaction was also observed in their readiness and willingness to give feedback for the improvement of the project for its future application. Some of the best recommendations ware related to building trust in their efforts and proving the importance of their approach, also to use more technology in applying the project, creating easier connections with firms, having access to best practices, and improving efficiency: "it would be helpful to include companies that applied the proposals received from the consultant team as examples", "to simplify some stages of the project", "a more compressive explanation of the entire project from the beginning", "it would be nice if we didn't have to find ourselves the firms", "I would like to see a documentary or a video about all the learned processes, especially on existent firms as a starting point of our activity".

Conclusions

The educational process in HEIs is under a continuous pressure, being influenced and led both by future technologies and jobs as well as by the increasingly different pedagogical and methods preferred and required by younger generation of students. Continuing the research initiated by Dragusin et al. (2018; 2019), this article manages to put into practice and to extend the application of the FRESHconsult project to Design and thus to evaluate the student's feedback involved in experiential learning and critical thinking activities. The recorded practical aspects showed that students' interest in the developed activities increased when they had to observe and come up with their own solutions for real problems of existing firms on the market, with which they interacted to complete the proposed activities. It turned out that an overwhelming majority of the interviewed students (87%) were satisfied and very satisfied with the learning experience gained by performing a consulting project on a real company. This validates the pedagogical approach proposed by the FRESHconsult project for the current generations of students, and proves its viability in extending it to other disciplines. Although the workload and the difficulty level of tasks in the project was perceived as being rather average to high by more than 57% of respondents, its benefits was proved by the 92% of the students who appreciated useful and very useful what they learned through the activities carried out. This proves that the involvement of millennial in learning activities is considerably higher when the perceived utility level is higher, using pedagogical methods adapted to their

preferences and needs. It can be said that the perception of utility is considerably more important than the level of difficulty in determining the overall satisfaction. As part of real life, creating the context of pressure and difficult situation themselves can help students in exceeding their individual creative boundaries.

This article represents a validation of the FRESHconsult project applied in Design, and may represent a starting point for future research on methods to improve and adapt it to future-oriented learning needs of younger generation of students.

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