

# LEARNING STYLE PREFERENCES OF UNIVERSITY AND COLLEGE STUDENTS

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## Abstract

*Knowledge of the appropriate learning styles in which students approach the study supports the effectiveness of the teaching process. There is international research that explores the factors that influence student learning styles or students' preferences. The results of some research based on the similar methodologies are inconsistent. The aim of this research under the conditions of Czech tertiary education was to verify what factors students' learning style preferences in the subject Marketing depend on. The method of questioning based on quantitative research was used. 132 students of University of Economics, Prague and of College of Polytechnics Jihlava were involved in the research. The questions were formulated in a way to be able to define the learning style and whether students were aware of their sensory preferences. The model was based on the VARK model and the learning style according to motivation and intent. A chi-square test of independence was used for verification. The preferences of a deep problem-based learning style prevail. Learning styles preferences depend on factors related to the practical preparation of the students and the difficulty of the subject.*

**Keywords:** learning style, VARK model, deep problem-based learning style, Czech tertiary education, subject Marketing.

## Introduction

The mission of universities and colleges is to provide quality education and to prepare graduates for employment in the best way. Now requirements are increasingly being developed by representatives of education (Ministries, management of universities or colleges, guarantors of study programmes and others); especially such requirements considering the fact the education at universities and colleges should be oriented not only on theory but especially on application connected with employment. At the international level, the effort has been persisting for several years and, through state intervention, pressure has been put on universities and colleges to maximize their outcomes in the form of graduates' competences for employment (Brown & Lauder, 2009).

The component supporting employment is transferred to education through the implementation of practical subjects, as it is required in the graduate's profile which must correspond to the study programmes. In the study programmes of universities and colleges, several attributes have been increasingly seen - those that help to achieve employment-oriented educational goals. It is mainly about completing the internship during the study and the involvement of practitioners in the teaching process. This factor changes the form or method of teaching and therefore is more based on experiential learning. This type of education is

also beneficial for the students themselves (Pratama, 2015) and contributes to strengthening students' abilities to improve their academic performance (Espinoza-Poves et al., 2019; Shirazi & Heidari, 2019). Smith and Emerson (2017) research, which confirmed that academia is primarily focused on academic research but lacks significant practical experience or academic certification, can be used to explain why this is the case. After graduation, students may lack the practical skills required by the labour market. In the Czech Republic, research (Berková et al., 2018a; Berková et al., 2018b) focused on students of the College of Polytechnics in Jihlava has shown that students placed higher demands on teachers, as many of them sought true penetrating a problem based on practical experience. As a result, there has been a change in students' attitudes to learning and in their preferences as they have become more oriented to employment.

Students' preferences in the learning process and their ways of acquiring curriculum and information processing are an important attribute for quality pedagogical activities. Students and teachers need to know what approaches and styles suit best to the learning process, i.e. how to develop students' cognitive abilities effectively. Due to this knowledge, educators can prepare a quality path and above all maintain it by transferring this knowledge to the teaching process and adapting it to educational strategies and methods in the form of improving the quality of education (Kolb & Kolb, 2005). It has turned out that the personal characteristics of students in relation to academic education are significant. Their significance was confirmed in connection with students' business plans (Nitu-Antonie & Feder, 2015). Education based on activity, experiential learning and the learning process has been identified as more effective (Karns, 2006). In 2012, a research on the style of learning in a university environment was conducted, focusing on marketing communication and business literacy of students. The university has improved pedagogy through new knowledge of preferred learning styles (Allen et al., 2013). Bosman and Schulze (2018) the researchers have also dealt with determining the impact of demographic variables on the learning style preferences in Mathematics.

Learning style can be defined as an individual learning process which is favoured by individuals (Fenyvaisová, 2006). It is a peculiar approach given by the structure, quality, flexibility or motivation of application in the learning process (Mareš, 1992). Learning styles are an important element in the learning process as it is an individual way to perceive reality, receive information and process curriculum. Thus, the learning style is helpful in processing information and acquiring new knowledge. This is how the important American psychologist Kolb defined the learning process. Kolb believed that learning styles include three pillars: (a) learning based on experience; (b) practical activities; (c) laboratory activities (Kolb & Kolb, 2005). Kolb and Fry (1975) used Piaget's theory to define the learning process. They defined the learning process through four stages: (i) concrete experience; (ii) active experimentation; (iii) reflective observation; (iv) abstract conceptualization. Kolb's four-quadrant model is based on the fact students use a different way of learning to learn. From this, learning styles based on survival, perception, thinking and active action and multisensory learning styles have been defined. Teaching materials are also related to learning styles. With the development of digital technologies, digital interactive teaching resources have been booming. Practically oriented subjects often use videos to illustrate real-life situations. The adoption of new digital approaches, including the use of video tutorials, can improve learning styles and thus lead to more efficient learning (McGovern et al., 2017). The importance of interactive and mobile learning has been discussed in an article (El-Hussein & Cronje, 2010), which highlights the positive effects of such education on experiential learning. Research has primarily been focused on measuring the impact of interactive education on student learning.

In 2006, Fleming and Mills developed a simple tool for determining the sensory modality when processing the information, marked as VARK: Visual, Auditory, Reading/Writing and Kinesthetic (García Nájera, 2007). The VARK model assumes that each student

can identify their own learning style and be aware of their sensory preferences (Sarmiento et al., 2017). Research (Espinoza-Poves et al., 2019) found that 135 students of the professional school of administration and 251 students of the professional school of international business administration, mostly preferred style Reading/Writing (29.4%) and Multimodal style (25.7%) out of the model VARK. The least used style was the visual style (8.3%). Auditory (17.4%) and Kinesthetic styles were very balanced but did not belong among the most numerous used learning styles (19.3%).

In the literature, besides the VARK model, other learning styles can be found in connection with motivation and approach according to the theory of Entwistle and Newble (Entwistle, 1981). This model has been very important for pedagogical practice, as the student's motivation and approach to study is essential for a well-functioning pedagogical process (Škoda & Douřík, 2011). The most widespread learning style is the surface approach. It is used by students who prefer to spend as little effort on learning as possible. They do not need to understand the curriculum, but it is enough to acquire it mechanically (instil, store it in mechanical memory). Memorizing with the motive of obtaining academic performance is typical for this method of adoption. Students perceive information as continuous, they are not able to structure information. There is no association process, the students do not create any links between new information and previously acquired information, thus saving the information in short-term memory. Once used, information becomes useless and forgotten (Pasiar et al., 2015). In the Czech Republic, the surface approach of learning has been widespread (Škoda & Douřík, 2011). The opposite of the surface approach is the deep approach. It is very important for the learning and teaching process. Students with this approach perceive certain relations among information and are aware of the existence of a certain hierarchy in the given set of information. They find personal sense in the curriculum and learning and focus on the practical use of knowledge (Entwistle, 1981; Pabian, 2012).

Learning styles are influenced by external and internal factors, they often arise on an innate basis and are conditioned by cognitive development (Sarabdeen, 2012). There are many studies (e.g. Allen et al., 2013; Espinoza-Poves et al., 2019; Garber et al., 2017; Holtbrügge & Mohr, 2010; Karns, 2006) studying variables affecting learning styles. The gender of students is a common factor in research. However, surveys examining the impact of this internal independent variable with an impact on the teaching style of university students do not present the same outcome in many studies. Gender differences in learning styles were examined in the student research at the university in subjects focused on marketing and business (Garber et al., 2017). The marketing business game was used for this purpose with 22 university students. Although a positive effect from the marketing game was found between the sexes, men and women used different learning styles. This finding had an impact on pedagogy and the research results were applied in practice. Gender differences in learning style were also shown by Cano (2000). However, Martín-García (2003) came to the opposite. Not only did research not confirm that the style of learning depends on gender, but also the impact of socio-demographic factors such as marital status and level of education was not confirmed. Similarities can be found with other studies (Espinoza-Poves et al., 2019). The researchers proved there has been no significant link between learning styles and academic performance, gender, student age, employment situation, subject type and involvement in student internship, or the impact of teaching practice. The researchers recommend studying other variables such as motivation, learning habits, school environment. However, this research is in contradiction with a survey (Shirazi & Heidari, 2019) which proved that there was a relation between learning styles and academic achievement among university students. Unconsciously, a teacher can support a single learning style that is not appropriate in relation to the subject and the content of education (Pasiar et al., 2015). Thus, the teacher is an important factor affecting learning styles as well. There is a relation to how students perceive subjects in terms of difficulty and whether they

choose a learning style accordingly. Learning climate, thinking pattern, and curiosity play an important role in academic performance (Maksum & Khory, 2020). It is important to perceive and observe the learning and school climate, but also the behaviour of students.

### *Research Aim and Hypotheses*

The aim of the research was to verify what factors the learning style preferences of university and college students depend on in a practically oriented subject Marketing in the conditions of Czech tertiary education. The correlation has been researched using these variables - gender, practical marketing experience, mentor's influence (person working in the field), influence of the teacher teaching the subject Marketing at the university and college, the interest in direct contact with the teacher, professional interest in the subject and the difficulty of the subject. The aim implied the main hypothesis:

Students' learning style preferences in the subject Marketing depend on the analysed factors.

## **Research Methodology**

### *General Background*

Knowledge of students' learning style preferences creates the prerequisites for achieving the didactic effectiveness of teaching as well as educational and cognitive goals, and it also improves pedagogical communication. This assumption was scientifically proven, for example, also in research carried out in 2012, where its researchers focused on the importance of learning styles for the teaching process at universities and colleges (Allen et al., 2013; Espinoza-Poves et al., 2019). The results of the study were implemented into teaching practice.

The researchers examined preferences of university and college students in the practically oriented subject Marketing aims and aspired, depending on the results of the research, to design procedures to achieve a higher effect in learning and teaching processes for the subject Marketing. This was helped by knowledge of factors influencing students' learning style preferences. In achieving efficiency of the teaching process, one of the important prerequisites was pedagogical communication – mutual communication and understanding between a teacher and a student. Therefore, knowledge of the preferred learning styles, in other words knowledge of the factors that played a significant role in students' learning was essential for the successful work of any teacher. This research was conducted in September and October 2019.

### *Sample*

The research sample was created based on deliberate sampling as the predetermined relevant characteristics of the sample essential for this empirical study were given. The sample had to meet: (a) the selection of respondents - college and university students of economic studies; (b) the choice of a university and a college according to the organization's vision of the school with regard to the different way of preparing graduates for practice, i.e. it was necessary to involve a college that provides internship during studies and let people working in the field teach students and at the same time to involve a university with the theoretical portfolio where theoretical subjects dominate and practical orientation is suppressed; (c) passing the subject Marketing within tertiary education; (d) selecting a university/college that teach economic subjects.

Two institutions of tertiary education in the Czech Republic were involved in the research with a different vision: (a) the College of Polytechnics Jihlava, which is a public college in

the Vysočina Region and practically oriented requiring practical training (internship) during studies; (b) University of Economics, Prague, Faculty of Finance and Accounting, which is the subject of this research, does not allow taking internship during study and does not have a wide portfolio of practically oriented subjects. The choice of the Marketing subject, in which students' learning styles were studied, was suitable for the research by being a practically oriented subject, relevant to any economic activity carried out in real-life, and the subject was adapted for interactive learning and using videos which could be used by students to learn. The sample was made up of students from these two institutions of tertiary education, and therefore it was also possible to examine the impact of the institution on the students' learning style. A total of 132 full-time undergraduate students were involved in the research, out of which 82 were students of the Faculty of Finance and Accounting at the University of Economics and 50 were out of the College of Polytechnics Jihlava in Finance and Management and Tourism. Students were enrolled in the Economic and Management programmes. The research sample fulfilled the prerequisites for deliberate sampling. Participation of students in the research was conditioned by their completion of the course Marketing. The maximum number of addressed students from the Faculty of Finance and Accounting were 90 students, i.e. 91% return. At the College of Polytechnics Jihlava it was possible to reach a maximum of 150 students (regarding conditionality for participation in research). A third return (33%) was achieved. The sample size was further conditioned by students volunteering to be involved in research and due to this it was not possible to obtain a larger sample. At the same time, this condition could be seen as an important factor for increasing the objectivity of the results in view of the possible intentions of respondents to distort the results. For the above reasons, the final total of the students involved was 132, and this could be viewed as reliable. The survey involved 27% of men and 73% of women. The Bachelor's degree at both institutions was represented by all years of study. 62% of respondents study the first year, 33% of students represent the second year and the remaining 5% are from the third year of studies.

#### *Instrument and Procedures*

The research was built as a quantitative one using the method of questioning applied at the data collection stage. A web-based questionnaire was created and sent via school emails at both institutions in September and October 2019. The students were informed about the objective of the survey and its scope. Their involvement was voluntary and anonymous. The questionnaire was first subjected to a pilot verification of the validity and reliability of the research tool in the institution conditions, which corresponded to the sample in the phase of sharp data collection. The questionnaire contained questions related to the researched issue and factual questions enabling characterization of respondents. The structure of the questionnaire and the wording of the questions are given in Table 1. The variables that were subject to statistical analysis to verify hypothesis are presented.

**Table 1**  
*Questionnaire structure and categories*

Variable	Category
Visual learning style	I can learn better through pictures, graphical records, highlighting information, algorithms, diagrams
Auditive learning style	I can learn better by retelling, listening, watching using a video
Deep problem-based learning style	I can learn better through using case studies / problem-solving tasks that I solve myself, searching for information and working with it, and thus gain knowledge
Surface Approach Learning Style	I can learn better based on what the teacher tells me to learn for the exam, i.e. I am merely interested in the academic achievement guaranteeing fulfilment of study conditions
Gender	Male/Female
Experience with marketing through practice	Yes/No
Teacher of the subject Marketing at the institution influenced the student in the way of learning	Yes / Partially / No
The internship mentor influenced the student in the way of learning	Yes / Partially / No
Interest in direct contact with the teacher at the institution	Yes / Partially / No
Professional interest in the subject	Yes / No
Difficulty of the subject Marketing	Yes / Partially / No
Institution of tertiary education	College of Polytechnics Jihlava/University of Economics Prague, Faculty of Finance and Accounting

The questionnaire was designed with the object of determining the influence of these factors on students' learning styles preferred in the subject Marketing in tertiary education. It concerned statements of students who answered questions in the questionnaire that were to determine which learning styles the students preferred in this particular subject. The design of the research tool and the selection of variables were based on a method and research (Espinoza-Poves et al., 2019), which had analysed learning styles of business students of two different fields of study and had found connections between students' learning style preferences and respondent characteristics. The researchers primarily proceed from the VARK learning style model, with the choice of an auditory (visual) style that is common to Czech conditions. Since the VARK model assumes that each student can identify their own learning style and be aware of their sensory preferences (Sarmiento et al., 2017), the questions were compiled in the questionnaire in this way. The model also included a surface approach and deep problem-based learning styles according to intent and motivation, based on the theory of Entwistle and Newble (Entwistle, 1981).

### *Data Analysis*

The data were of a different character. They were primarily dependent and independent variables. Dependent variable was a students' learning style. Independent variables included factors by which learning style could be influenced - gender, practical marketing experience, mentor's influence (person working in the field), influence of the teacher of subject Marketing at the institution, interest in direct contact with the teacher, professional interest of the student and difficulty of the subject. The selection of these factors was partly inspired by research (Espinoza-Poves et al., 2019). Two types of variables entered the data analysis: (a) acquiring only two categories (male / female, yes / no, College of Polytechnics / University of Economics, Prague), (b) ordinal, acquiring three categories (yes (partly / no, fun / both / learning).

SPSS statistical software was used for statistical data processing. The evaluation of the data by the statistical apparatus was divided into these steps:

- A chi-square test of independence was chosen to test the dependence of two categorical variables, at least one of which was nominal. Using this test, the dependence of learning style (nominal variable) of students in the subject Marketing on the researched independent factors (dichotomous and ordinal variables) was studied. If the p-value is less than or equal to .05, the researchers reject the null hypothesis which says the variables are independent. In this case, the independent variable affects the dependent variable.
- If the dependence of variables was identified by the chi-square test, the Cramer V coefficients and the Phi coefficient that were appropriate for this data were calculated. These were: (a) two dichotomous variables; (b) one dichotomous and 1 ordinal with 3 categories. Generally, these coefficients range from 0 (independence) to 1 (fixed dependence).

The hypothesis was verified at a significance level of 5% using the chi-square test of independence and the coefficients described. The null hypothesis was formulated as follows:

The learning style of students in the subject of marketing does not depend on the studied factors.

## **Research Results**

### *Descriptive Statistics of Analysed Data*

Students of both institutions declared to use deep problem-based learning style in the subject Marketing (Table 2). This style was supported by 43.9% of respondents (i.e. 58 students out of the sample). The second most commonly used was the surface approach learning style (37.1%, i.e. 49 respondents). The least used learning styles in marketing were visual (9.8%, i.e. 13 students) and auditive learning styles (9.1%, i.e. 12 respondents). The least represented auditive style was perceived as a surprising result by the researchers regarding the nature of the subject Marketing and the possibilities of using interactive tools such as videos.

**Table 2**

*Students' learning styles preferences in the subject Marketing – absolute and relative frequency*

Dependent Variables	n <sub>j</sub>	%
Deep problem-based learning style (D)	58	44.0
Surface approach learning style (S)	49	37.1
Visual learning style (V)	13	9.8
Auditive learning style (A)	12	9.1
Total	132	100.0

The style of learning differed according to the characteristics of the respondents and other variables (Table 3).

**Table 3**

*Characteristics of students of tertiary education by learning style (%)*

Independent Variables (n = 132)	Learning Styles			
	D	S	V	A
Gender				
Male (36)	52.8	27.8	8.3	11.1
Female (96)	40.6	40.6	10.5	8.3
Tertiary education specialization				
College of Polytechnics Jihlava (50)	28.0	52.0	12.0	8.0
University of Economics Prague (82)	53.7	28.0	8.5	9.8
Experience with marketing in the workplace				
Yes (21)	71.4	19.0	4.8	4.8
No (111)	38.7	40.5	10.8	10.0
Influence of the mentor working in the field on the way of student's learning				
Yes (19)				
Partially (51)	68.4	5.3	15.8	10.5
No (62)	41.2	39.2	11.8	7.8
	38.7	45.2	6.5	9.7
Influence of tertiary education teacher on the way of student learning				
Yes (76)				
Partially (19)	39.5	42.1	10.5	7.9
No (36)	63.4	26.2	5.2	5.2
	44.5	33.3	8.3	13.9
Interest in direct contact with the teacher				
Yes (92)	47.8	35.9	9.8	6.5
Partially (28)	32.1	35.7	14.3	17.9
No (12)	41.7	50.0	0	8.3
Professional interest				
Yes (71)	57.7	23.9	9.9	8.5
No (61)	27.9	52.5	9.8	9.8
Difficulty of the subject in tertiary education				
Yes (12)	8.3	75.1	8.3	8.3
Partially (18)	55.6	27.7	11.1	5.6
No (100)	45.0	35.0	10.0	10.0



*Testing the Dependence of Learning Style in the Subject Marketing on the Characteristics of Students*

Given that the auditive and visual learning styles were negligible, factors (characteristics of students) with an impact on deep problem-based and surface approach learning styles were analysed (Table 4).

**Table 4**  
*Dependence of students' learning style preferences on independent variable*

Independent Variable	Chi-square <i>p</i>	Phi		Cramer's V	
		Value	<i>p</i>	Value	<i>p</i>
Gender	.152	.138	.152	.138	.152
Practical Experience	.017	-.231	.017	.231	.017
Influence of the mentor working in the field	.007	.305	.007	.305	.007
Influence of tertiary education teacher	.249	.161	.249	.161	.249
Direct contact with the teacher	.617	.095	.617	.095	.617
Professional Interest	0	-.360	0	.360	0
Difficulty of the subject	.012	.291	.012	.291	.012

The surface approach and deep problem-based learning styles depended on factors related to practical training. They represented student's own practical experience, influence of the mentor working in the field, student's interest in marketing and the difficulty of the subject (Table 4). Table 3 also clearly shows that these factors were mainly related to the deep problem-based learning style, which was characterized by a deeper penetration into the problem and its understanding. This requires practical experience of a mentor or student. However, the Cramer V and Phi coefficients range from .200 to .360 in this research, indicating a weaker dependence of the learning style on these factors. At the significance level of 5%, the researchers reject the null hypothesis in the case of practical experience, mentor working in the field, professional interest and the difficulty of the subject Marketing.

**Discussion**

This research brought new findings in the field focusing on the influence of factors related to personality characteristics and experience of learning and teaching process actors. The research concentrated on the VARK model and learning styles based on motivation and intent. Due to the finding that students preferred the surface approach and deep problem-based learning styles when studying Marketing, the significance of factors influencing students' preferences was examined in relation to these two learning styles. The research showed that the deep problem-based and surface approach learning styles, which could be considered dominant from the point of view of students' preferences in Marketing, was influenced by practical experience of students, mentors participating in teaching and the difficulty of the subject. This knowledge is essential for the research, as the facts that were compared with other similar studies give an indication, in particular, of socio-demographic variables, but do not directly provide information about the factors related to the teaching process. The deep problem-based learning style is preferred by students with practical experience in the subject, professional interest in the subject and at the same time those studying at a professionally oriented university

or college, which offers them the chance to participate in internship in the economic sphere during their studies. This style is also preferred by a group of students who favour direct contact with the teacher.

Deep problem-based learning style is more preferred by men than by women and students for whom the subject is not difficult. On the other hand, the surface approach learning style can be developed due to the influence of the teacher in the learning process and their way of guiding students, i.e. the emphasis is more on academic achievement than on the practical applicability of the subject. These findings are also brought by this research. Students without interest in the subject, without practical experience, studying at a university which is less practically oriented, and students who perceive the subject as difficult, prefer surface approach learning style. They do not seek to penetrate the core of the problem but want merely to reach academic achievement guaranteeing the fulfilment of study conditions. There is also no gender balance in the surface approach learning style. This style is more preferred by women than men, although the differences are small. The use of visual and auditive style is negligible. Therefore, these learning styles were not studied in depth; however, they will be the subject of further research, which will be extended to include additional research samples.

However, the findings that the research brings, are in contradiction to research (Espinoza-Poves et al., 2019), which has not shown a significant link not only between learning styles and students' practical experience or practical teaching, but also academic achievement, gender, age of students and employment situation. Gender is not a significant factor, in this particular finding the research results are consistent, and it thus strengthens the validity of Martín-García (2003) research. However, a discrepancy can be found with the research (Garber et al., 2017), which was focused on factors affecting the learning styles when using a marketing game. After playing it, the learning styles that students preferred were analysed. The differences between the results of the research can be caused by a low sample of students ( $n = 22$ ) who participated in the learning game and by the specialization of the subject as the business game develops not only expertise but also social skills.

The discrepancy can be found with the research (Holtbrügge & Mohr, 2010), which was focused on the factors affecting the learning styles when study level, exchange student status, and gender in the context of individuals' cultural values.

It is evident that practical knowledge is a significant attribute for students' studies. It is an indicator for adjusting pedagogical activity (Allen et al., 2013), as the academic environment without a practical component leads to students' insufficient gaining skills required in the labour market (cf. Smith & Emerson, 2017). The weak relation between learning styles and teacher teaching strategies is also a problem (Baltaoğlu & Güven, 2019). These relations were also presented in the research. The study (Bosman & Schulze, 2018) presented that teachers were recommended to create a positive learning environment at school and use teaching methods that accommodate a variety of learning styles. Maksım and Khory (2020) came to a similar conclusion. It is therefore necessary to direct the teaching more towards practical training using mentors working in the field and methods based on case study solutions, as well as making the teaching more interesting with various excursions in the field, internships or practical training. Students preferring deep problem-based learning style want to increase practical training, as well as it has been proved that the mentor working in the field affects students with deep problem-based learning style. At the same time, it was found that the subject Marketing was not difficult for these students. Thus, teaching strategies and learning styles will be consistent, and this teaching procedure can contribute to the increase of the didactic efficiency of education in a practically oriented subject such as Marketing.

Some research limitations need to be highlighted. At first it should be noted that the sample of 132 students is not large enough to generalize the results. The sample could have influenced the results, which are also inconsistent with similar studies. The sample was compiled

by deliberate sampling, which corresponds to the main research intent. However, the proportion of students from both tertiary institutions - university and college is not balanced in terms of numbers, which is another factor affecting the end results. The results can only be applied to a specific subject, but the research methodology used has a broader impact on the future similar research. The advantage of the methodology used lies primarily in the possibility of its simply application to practically oriented subjects other than Marketing. Subsequently, it enables exploring learning style preferences of students across the study portfolio and determining whether students use only one learning style or vary them according to the studied subject.

## Conclusions

The research brought new findings relating to factors influencing university and college students' preferences in the practically oriented subject Marketing. Students prefer learning styles based on motivation and intent, specifically, the surface approach and deep problem-based learning styles. This finding can be considered as an original outcome, as international studies usually prove the preferred learning styles according to the VARK model. This research led to the recommendation to teach the subject Marketing applying practically oriented teaching methods. That means - involvement of mentors working in the field along with developing practical experience in students, which can be beneficial in achieving education effectiveness in a practically oriented subject. It is therefore recommended to innovate educational strategies and teaching methods not only for the subject Marketing but also for other practically oriented subjects.

To continue the research, it will be useful to focus on exploring the combination of preferred student learning styles in terms of the VARK model and in terms of intent and motivation (surface approach and deep problem-based learning styles). Furthermore, it will be useful to explore the relations between these learning styles and motivation, learning habits, learning environment, subject types, academic performance, etc., which may be critical to the learning process that is being studied but many studies bring inconsistency in results. Future research will be focused on extending the model by these additional variables, focusing not only on the subject Marketing but also on Accounting as it is important for labour market. By examining these relations, it will be possible to achieve even better educational objectives and didactic effectiveness in education.

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