ASSOCIATIONS AMONG ITALIAN INSTRUCTORS' PARTICIPANTS PROFILE, DISTANCE EDUCATION EXPERIENCE AND STUDENTS' LEARNING PREFERENCES

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Abstract

The proposed study focuses on Distance education. Distance learning and teaching has gained a lot of momentum during the last couple of years. Instructors are called to transform the courses from face to face towards online teaching. This transition is very challenging. The approach to teaching online is very different in comparison to face to face teaching. The whole process of online teaching needs to reengineer the traditional teaching process. The central person is the instructor. It is the person that orchestrates the educational process. In this context, it is necessary to examine the profile of the instructor. As a result, the current paper focuses on the instructors' attributes, their teaching styles and at the same time the students' learning styles. A structured questionnaire survey has been implemented. The survey managed to collect 63 responses from faculty members. The purpose of the questionnaire was to record the instructors' profile, their teaching preferences and finally instructors stated their preferences regarding the students' learning styles. All the collected data was inserted into an SPSS database. Several statistical analyses took place. A core analysis was the crosstab analysis that revealed the associations among Instructors attributes and teaching styles and their desired students' learning styles. The analyses' results presented significant associations among the stated preferences. In some cases, significant associations were identified among Instructors and Students preferences and in specific cases these preferences were expressed with the same degree of approval. Instructors that moderately have a preferred way of doing things and do not much like to do things in other ways are associated with students that moderately prefer tasks, projects, and situations that allow working with competing approaches, with multiple aspects or goals that are equally important. The study will be presenting significant associations and descriptive statistics with emphasis on Italian university instructors.

Keywords: distance education, learning styles, teaching styles, italian students, association analysis.

1 INTRODUCTION

In recent years, the field of education has undergone a profound transformation with the widespread adoption of distance learning [1], driven significantly by global events that demanded a shift from traditional face-to-face teaching to online platforms. This transition presents substantial challenges for educators, who must adapt and rethink their teaching methods to meet the unique demands of virtual education [2]. Unlike traditional classrooms, the shift to online teaching requires a fundamental change in instructional strategies and pedagogical techniques. Central to this evolution is the pivotal role of the instructor in the virtual environment. Understanding the characteristics and approaches of instructors becomes essential as they navigate the intricacies of online instruction [3]. This paper aims to explore instructors' attributes, teaching styles, and how they align with students' learning preferences within the context of Italian university education. The study employs a structured questionnaire survey, administered in the context of the Erasmus + Project "Optimizing Distance Learning Educational Programs" (ODLEP), among faculty members, providing valuable insights into instructors' profiles, teaching preferences, and their perspectives on students' learning styles. With (n=63) responses collected, statistical analysis tools were employed to uncover associations between instructors' attributes, teaching styles, and desired student learning preferences. Notably, crosstab analyses reveal significant correlations and alignments between instructor preferences and corresponding student learning styles. By focusing specifically on Italian university instructors, this study offers a nuanced examination of the dynamics shaping online education, with implications for instructional design and pedagogical strategies in the evolving educational landscape. Subsequent sections of this paper delve deeper into the statistical analyses and findings, elucidating meaningful associations observed among instructors' attributes, teaching styles, and students' learning preferences within the context of distance education. This research contributes to a better understanding

of effective teaching approaches in the virtual classroom setting, with practical insights applicable to educators and institutions navigating the challenges of online education.

2   METHODOLOGY

The methodology employed in this study involved the administration of a structured questionnaire survey among faculty members from Italian universities. The survey was conducted using Computer-Assisted Web Interviewing (CAWI) methods, allowing for efficient and standardized data collection in an online format [4]. This approach facilitated widespread participation and timely data acquisition from a diverse pool of respondents. The questionnaire was designed to capture key aspects of instructors' profiles, teaching preferences, and perspectives on students' learning styles. Participants were asked to provide detailed information regarding their instructional approaches, including preferred teaching methods and strategies employed in the online learning environment. Additionally, instructors were prompted to indicate their preferences and attitudes towards different styles of student learning. The answer options for all questions are all identified by the following 5-point Likert scale: "Not at all", "Slightly", "Moderately", "Very", "Completely". The structured nature of the questionnaire allowed for systematic analysis, leveraging statistical tools to uncover meaningful associations between instructors' attributes, teaching styles, and desired student learning preferences. This methodological approach provides a robust foundation for exploring the dynamics of online education and its implications for instructional design and pedagogical strategies within the Italian university context. Fig. 1 shows the schema used to visualize the relationships between instructors' attributes, students' learning preferences and instructors' teaching preferences.
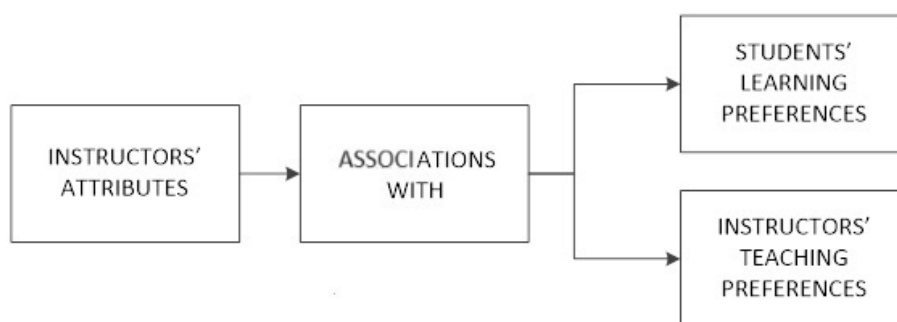

Figure 1. Scheme for the study of associations between instructors' variables.

3   RESULTS

Frequency distributions for variables regarding instructors' demographics and academic background are shown in Table 1.

Table 1. Instructors' demographics and academic background frequency distributions

		n	*%*
Gender	Female	34	54,0
	Male	27	42,8
	No answer	2	3,2
Age	<=40	17	27,0
	41-50	22	34,9
	51-60	16	25,4
	>60	8	12,7
Marital status	Married	32	50,8
	Single	25	39,7
	No answer	6	9,5

Organization type	State Government University	27	42,9
	Private College	36	57,1
Level of computer expertise	Poor to average	1	1,6
	Average	17	27,0
	Average to good	29	46,0
	Good	15	23,8
	Missing	1	1,6
Efficiency of distance learning	Inefficient	1	1,6
	Inefficient to average efficient	4	6,3
	Average efficient	15	23,8
	Average efficient to most efficient	29	46,0
	Most efficient	14	22,2
Total		63	100,0

Figures from 2 to 6 represent significant associations between certain instructors' characteristics and their learning preferences.
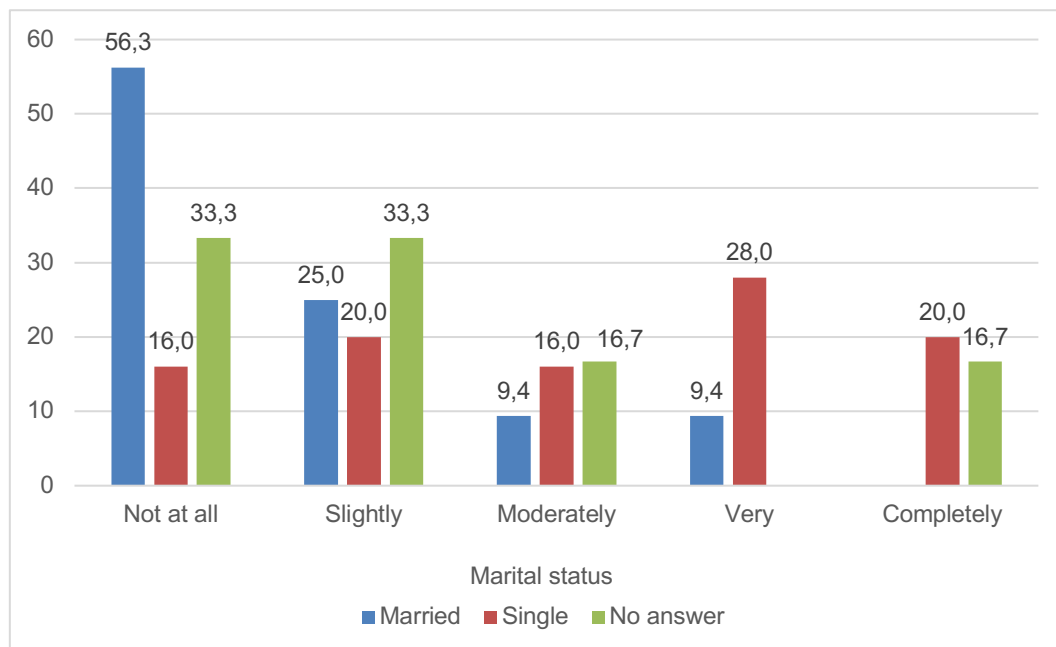

Figure 2. Instructor that is not so enthusiastic about team teaching and prefer to teach on his / her own. Percentage by marital status. X^2: 17,345. Degrees of freedom: 8. P-value: 0,027

The distribution in Fig. 2 shows that more than half of married instructors disagree at all with the statement of the question. It can therefore be said that married people have a great appreciation for team teaching. In fact, none of the married people answered "Completely". On the contrary, among singles there are 20% "Completely" answers and 28% "Very" answers, and it is therefore possible to say that singles prefer to teach on their own.
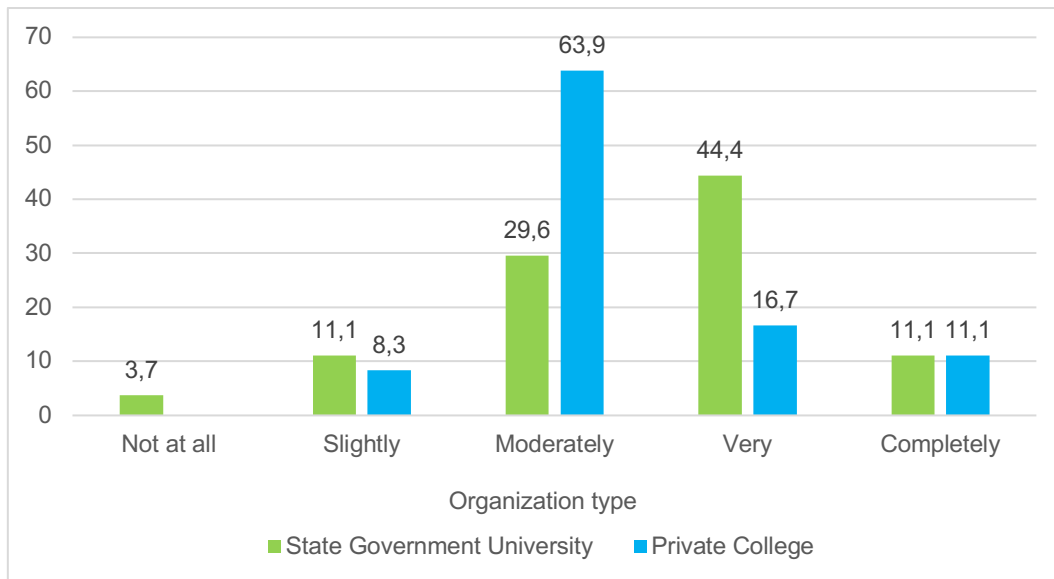
Figure 3. Students that have preference for tasks, projects, and situations that require engagement with specific, concrete details. Percentage by Organization type. X^2: 9,305. Degrees of freedom: 4. P-value: 0,054.

From the percentage distributions in Fig. 3, most Private college instructors respond "Moderately", as much as 63,9%. While most of the State Government University instructors answer "Very". Instructors at Private Colleges therefore seem not to be too keen on what they think their students prefer, while according to instructors at State Government Universities, their students prefer tasks, projects, and situations that require engagement with specific, concrete details.
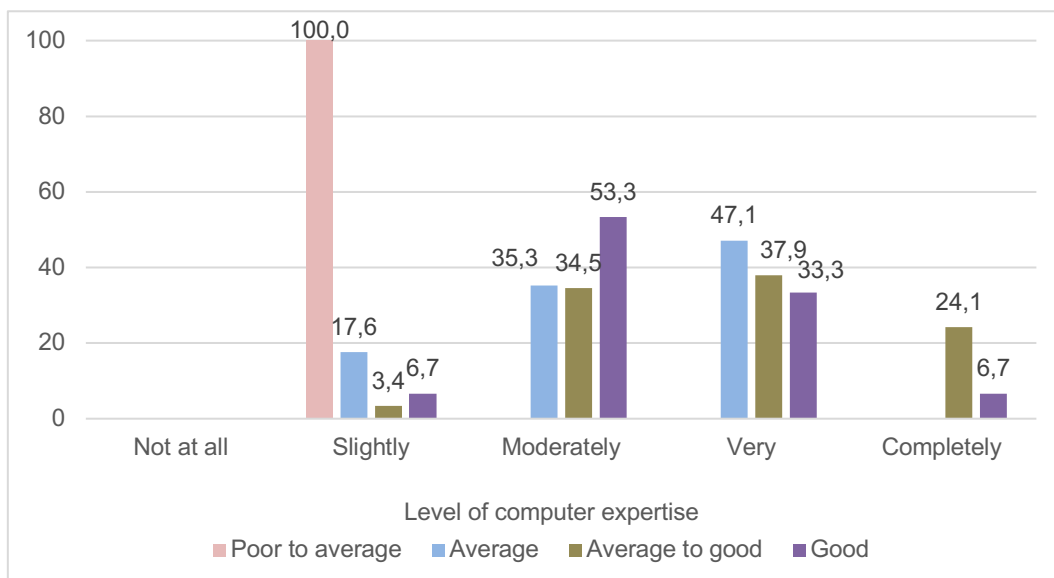

Figure 4. Students that can better conceive the instructional material through performing the practical, experimental and object manipulation via something more of a physical process. Percentage by level of computer expertise X^2: 18,671. Degrees of freedom: 9. P-value: 0,028.

The graph in Fig. 4 shows the percentage distribution of instructors who believe that their students can better conceive the instructional material through performing the practical, experimental and object manipulation, by the level of computer expertise. Most instructors with average computer skills say that their students can very conceive better the instructional material through performing the practical, experimental and object manipulation, while the most of instructors with good computer skills say that their students benefit moderately from practical and manual activities. The only instructor with low to average computer skills says students may slightly prefer manual activities.
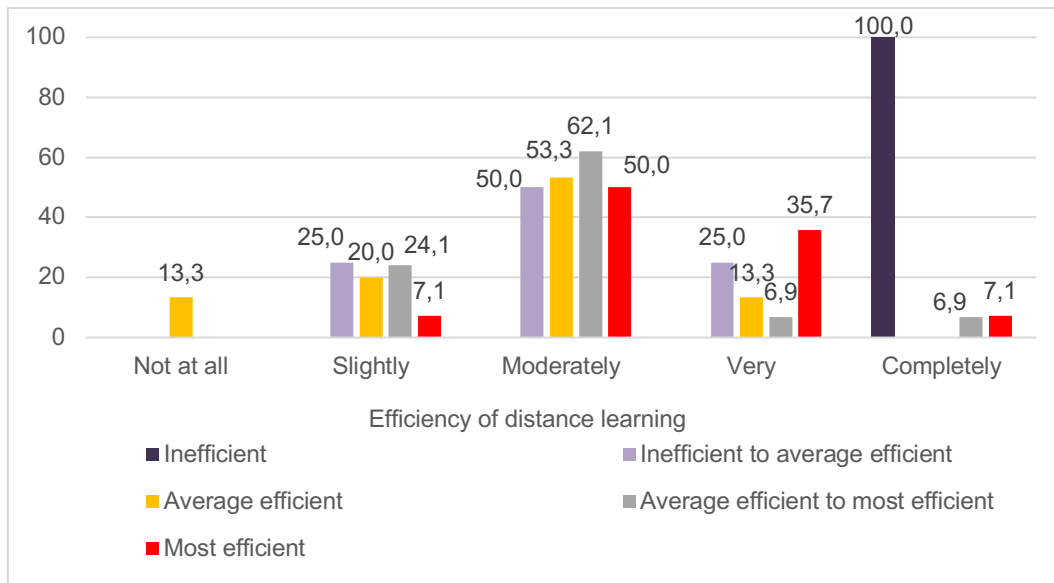
Figure 5. Students that have preference for tasks, projects, and situations that allow creation of a hierarchy of goals to fulfil. Percentage by perceived efficiency of distance learning. X^2: 29,420. Degrees of freedom: 16. P-value: 0,021.

The graph in Fig. 5 shows the percentage distribution of instructors who believe that their students have preference for tasks, projects, and situations that allow creation of a hierarchy of goals to fulfil by the perceived efficiency of distance learning. Most of all instructors responded with "Moderately". There is a fairly high percentage, 35,7% among instructors who consider distance education to be most efficient, who responded "Very". While the only instructor who deems distance education inefficient believes that students completely prefer tasks, projects, and situations that allow creation of a hierarchy of goals to fulfil.
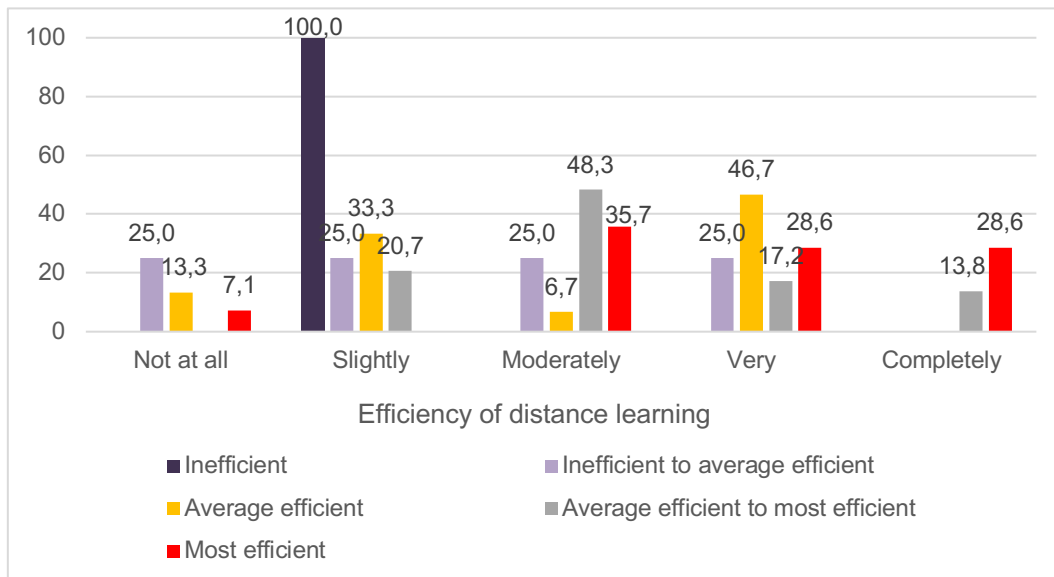

Figure 6. Students that have preference for tasks, projects, and situations that lend themselves to great flexibility of approaches, and to trying anything when, where, and how they please. Percentage by perceived efficiency of distance learning. X^2: 26,803. Degrees of freedom: 16. P-value: 0,044.

The graph in Fig. 6 shows the percentage distribution of instructors who believe that their students have preference for tasks, projects, and situations that lend themselves to great flexibility of approaches, and to trying anything when, where, and how they please by the perceived efficiency of distance learning. It is noted that those who have a positive perception of distance learning tend to think that students prefer activities that lend themselves to great flexibility of approaches. In fact, none of those who consider distance learning to be inefficient or averagely efficient answered "Completely".

4 CONCLUSIONS

The findings from this study shed light on the dynamics between instructors' attributes, teaching styles, and students' learning preferences within the realm of online education at Italian universities. The transition to distance learning, accelerated by global shifts, has not only necessitated a change in instructional methods but has also highlighted the pivotal role of educators in this virtual landscape. What emerges from this research is a nuanced understanding of how instructors adapt to virtual teaching environments. The study identifies correlations between instructors' personal characteristics and their pedagogical preferences. For instance, marital status appears to influence attitudes towards team teaching, with married instructors showing a greater inclination towards collaborative approaches. In contrast, single instructors exhibit a stronger preference for independent teaching styles. In addition, the survey delves into the relationships between teachers' perceptions of students' learning preferences and actual preferences reported by students. This exploration highlights potential gaps in understanding between educators and learners, particularly across different types of institutions. For instance, instructors at private colleges may not fully align with the learning preferences they perceive among their students, unlike those at state government universities. The study also underscores the role of technological proficiency in shaping instructional beliefs. Instructors' varying levels of computer expertise correlate with their perceptions of how students engage with practical and experimental learning methods. Notably, those with average computer skills tend to believe that students benefit most from hands-on activities, while those with greater expertise perceive a more moderate benefit. Furthermore, the perceived efficiency of distance learning significantly influences instructors' views on student preferences for flexible learning approaches. Instructors who perceive distance education as highly efficient tend to attribute greater preference among students for flexible, self-directed learning experiences. These insights are crucial for educators and institutions navigating the complexities of online education. By illuminating the interplay between instructors' attributes, teaching styles, and student preferences, this research contributes to the development of more effective pedagogical strategies tailored to the evolving landscape of virtual classrooms. Understanding these dynamics can inform instructional design and foster better alignment between educators' approaches and students' learning needs in the digital age.

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