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COVID-19 Pandemic, New Technologies and Relational Goods Challenges in Higher Education: Are We Closer (to Sustainability) or Further Away? Insights from Italy

This is the final peer-reviewed author's accepted manuscript (postprint) of the following publication:

Published Version:

Baldarelli, M.-G., Del Baldo, M. (2024). COVID-19 Pandemic, New Technologies and Relational Goods Challenges in Higher Education: Are We Closer (to Sustainability) or Further Away? Insights from Italy. Cham : Springer Nature [10.1007/978-3-031-49353-9_5].

Availability:

This version is available at: <https://hdl.handle.net/11585/979334> since: 2024-08-27

Published:

DOI: http://doi.org/10.1007/978-3-031-49353-9_5

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Covid-19 Pandemic, new technologies and relational goods challenges in higher education: are we closer (to sustainability) or further away? Insights from Italy

Abstract

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Pandemic situation, wars and climate change require a deep turn-round in entities management and accountability. An important role is played by education, that must endorse more attention on the matters mentioned before. A deep rethinking of topics and methods of teaching for students attending universities is therefore requested. This chapter aims to analyze what are the implications of distance courses both from the point of view of the quality provided and perceived and above all of the contents in order to answer to the urgent need of sustainability.

Keywords: Accounting education, accounting courses, accountability, university students, Covid-19, pandemic, sustainability, challenge, relational goods, technology, resource theory, on line education, on line learning, on line courses, teaching methodology, relational coordination, positive psychology, positive organizational behavior, quality education, sustainable development, sustainability, teaching, virtual environment, virtual learning, digital technologies, pedagogical approaches, higher education, educational institutions, teaching pedagogy, pedagogical methods

1. Introduction

The continuous emergency situation due to events involving the entire planet, such as the Covid-19 pandemic and the current wars, is leading us to take a serious look at climate change and the progressive decrease in biodiversity. A profound rethinking of the contents and methods of teaching for students attending universities is therefore required. The pandemic period radically changed the way teaching and learning have been delivered triggering a new set of tools, procedures and ways to carry out on line lectures, delivering teaching material and developing interactions between scholars, teachers and students: "already starting from Monday 2 March 2020, of the provision of training activities in the methods of online teaching, through the platform Microsoft Teams, with hours unchanged compared to the period before the interruption. Among the students who are faced with this sudden change, there are those enrolled in courses" (Zannoni, 2020, p. 77).

At the same time it has impacted (and may be further impacted) on the content of the courses, particularly with regard to accounting courses, whose object are represented by companies invested in great changes and called to revise their business models.

Some research questions therefore arise: "what is the impact on (accounting) education of digital new technologies? What changes are we able to see and forecast in the contents to teach the future generations especially about social accounting and accountability? Are they consistent to students' needs and expectations? Are they useful to educate/ for the future leaders and managers? Do we have to change social and accounting course programs?".

Drawing from these research questions the paper suggests, in the second section, literature framework useful to understand the changes required by overcoming existing pedagogical approaches applied to accounting education and addressing the attention to other complementary fields encompassing philosophical and positive psychology approaches. Section three describes learning and teaching in a virtual environment.

The aforementioned approaches are suggested to interpret data, that are analyzed in section four, that derive from the ANVUR (Italian agency for the evaluation of university research database) and the explorative empirical study, namely to the results of a survey carried out by submitting questionnaires from December 2020 to December 2021 to university students in Italy (Northern and Central Italian Universities).

The implications are both relevant in theory and practice and useful to understand the future direction in revising both the tools and approaches to deliver courses and the content on accounting

courses to be aligned with the need to operationalize sustainability in the business and educational contexts.

2. Learning and teaching in a virtual environment: interdisciplinary approaches

On the one hand the usefulness of the first stream is due to the fact that it draws its indication from another theoretical line, more of a philosophical and not just an accounting nature but which offers interesting ideas to enrich the debate in which one wishes to participate. This trend considers the research path towards wisdom. This orientation includes both studies intended as erudition and also practical activities. These practical activities derive from a process of creating deep and lasting relationships: "A study that is life should form men and women who know how to live and who know how to face all the problems of human thinking as problems personally experienced, not as problems of 'study' "(Foresi, 2008: 21)... a virtualization of the action of man as of the company and to avoid this it is necessary to "get one's hands dirty" with the problems of the world, trying to integrate knowledge without allowing oneself to be "disintegrated" by it ... in this way it orientates towards the support of a true culture which is not simply that of that thinking part of humanity, but also of all that which does not think from an intellectual point of view " (Foresi, 2008: 23; Zanghi, 2008 and 2012)

On the other hand, another field of study, that is linked to the issue addressed in this work, is that of positive psychology at work (POP), positive workplace, and positive organization (Martin, 2005; Turner, Barling, & Zacharatos, 2002; Wiegand & Geller, 2005). Positive psychology is "the science of positive subjective experience, positive individual traits, and positive institutions" (Seligman & Csikszentmihalyi, 2000: 5). The positive orientation to research, application, and scholarship inspired by this movement escaped the disciplinary confinement of psychology, and has spread quickly across the disciplines and professions of education, public health, health and care, social and human services, economics, politics and organizational sciences, and leadership management (Donaldson & Ko, 2010). With regards to scholars, positive organizational scholarship is: "concerned primarily with the study of especially positive outcomes, processes, and attributes of organizations and their members" (Cameron et al., 2003: 4). It seeks to study organizations characterized by appreciation, collaboration, virtuousness, vitality, and meaningfulness (Bernstein, 2003). Examples of research subjects within the POS include strength, resilience, vitality, trust, organizational virtuousness, positive deviance, extraordinariness, and meaning (Cameron, 2005; Cameron et al. 2003; Spreitzer & Somershein, 2003; Sutcliffe & Vogus, 2003).

Accordingly, positive organizational behavior (POB) refers to: "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement, in today's workplace" (Luthans, 2002a, p. 59). Core capacities include: hope, optimism, resiliency, and self-efficacy (Luthans, 2002b; Luthans & Avolio, 2003; Luthans & Youssef, 2004; Youssef & Luthans, 2007).

To focus on the pandemic period, Sangster et al. (2020) underlined that there is extensive literature about crisis management in organizations, but there is too less about accounting education. The Authors promoted an international survey that involved 45 contributions about accounting education and examined the problems for teachers and students that the on line education created. Among the main problems they underlined: "Assessment changed in an effort to suit an online environment: 53.3%; Stress – faculty 48.9%;3 Faculty workload significantly increased 44.4 %; Blended including face-to-face will be the new 'normal' 40.0%"(Sangster et al, 2020: 438). Before Pandemic Accounting education was developed mainly by traditional methodology. Pandemic

changed completely the approach creating stress both for students and teacher and losing face to face relationships and the University as a community of people.

The present complex global situation marked by huge global phenomena such as the Covid-19 pandemic, wars, poverty, and hunger, is driving the analysis to consider more broadly the devastation of the environment and the need to completely change companies' behavior. In this respect, one of the most important actors is the future generation of managers, represented by students attending universities and business schools, who need new approaches to the course contents and a consistent teaching methodology.

The main "traditional pedagogical theories" are: Subject-matter theory; Resource theory; Individualized (Eclectic) theory (Astin, 1984, pp. 518-521). Among them this work is focusing on the Resource theory, that is underlined by higher education managers. The main topic of this theory is the monetary availability to achieve better learning. Resource investments are including: laboratories, libraries, other types of instrumentation, engaging high-level both teaching staff and students. All of that should lead to an improvement in the learning level of the students (Astin, 1999).

Another important theory is about relational coordination and its importance in on line education is considered by Sánchez et al. (2015). The focus of their research is the combination of the first area that is relative to the combination of Relationships and Communications. The Relationship are composed by: shared goals, shared knowledge and mutual respect, while Communications involve Frequent Timely and Accurate Problem solving (Sánchez et al., 2015: 871). Data deriving from Spanish universities confirmed the importance of relational coordination to obtain the increase of quality in Education.

3. Learning and teaching in a virtual environment and the focus on accounting problems and opportunities

Nowadays many people have simple access to online resources thanks to the development of internet technology, mobile phones, and more recently, digital technologies that are used in everyday life. In this vein, virtual learning has become a common alternative or solution in the educational setting, particularly in the higher education context, where the increased adoption of virtual learning environment (VLE) has been noticeable in recent years and has been pushed by the pandemic (OECD, 2005). VLE has been defined as a system for providing educational content to students online. Examples of software being used for virtual learning include Moodle, Blackboard, and WebCT, among others. During the epidemic, these programs have become fundamental tools for education.

After the outbreak of pandemic all over the world the importance of VLE has suddenly increased (World Economic Forum, 2020). The educational world has undergone a significant transformation as a result of the coronavirus epidemic. Nearly 90% of all primary, secondary, and tertiary students worldwide were unable to physically travel to a school or university. Online learning management systems were licensed by a number of educational institutions. For educational institutions, Zoom, Google Meet, and Google Classroom tools were the unique tools adopted to keep their pupils learning. Students would not have been able to enroll in subsequent classes if the teaching process had not started online. Due to their prolonged home confinement, attendance increased as a result of their desire to interact with their classmates and professors. People from all over the world, tired of the coronavirus quarantine, began taking online courses in a variety of ways. The market for online education is expected to grow to \$350 billion by 2025. Even before COVID-19, there was strong growth and adoption in edtech, with global investments reaching US\$18.66 billion in 2019.

Since COVID-19, there has been a noticeable increase in utilization of language apps, virtual tutoring, video conferencing tools, and online learning software (World Economic Forum, 2020).

Virtual learning environments are sometimes referred to in the literature as learning management systems, web enhanced learning, and web-based learning. These technologies, which enhance students' learning outside of the lecture hall and can be accessed both on and off campus, include evaluation, student tracking, collaboration, and communication capabilities. Indeed, a virtual learning environment is made up of numerous software packages with capabilities that are intended to provide many more benefits than a traditional classroom. The VLE can be used to both deliver training sessions and provide lecture notes and presentations (before and after in-person lectures), additional learning materials, assignments, feedback, helpful web links, and discussion boards (Halwai et al., 2009). Google Meet, Zoom and many other apps are making online and live communication, easily possible. Various official meetings, faculty development programs, webinars, and e-conferences are now being conducted on these apps.

The addition of new dimensions - interaction, technology, and control - by the VLE expands the traditional understanding of the learning environment (Piccoli et al., 2001), allowing students to ask questions and share their comments. Both teachers and students use cutting-edge technologies.

It has been claimed that although implementing a VLE for particular learning objectives is a positive solution, efforts must also be made to assess its impact on the objectives and the steps that must be taken to enhance that impact. In other words, instead of just disseminating knowledge, the purpose of a VLE should be to engage students in active learning (Mahajan, 2016). For instance, in computer science lab sessions, technological utilization is relatively typical. Additionally, programming languages are particularly compatible with collaborative learning technologies, and such courses can be taught effectively using virtual learning environments. The discipline of medical science and other practical-based topics (i.e., physics and electronics) might use virtual learning environments to demonstrate cutting-edge equipment in their fields (Popova et al., 2014). Moreover, also finance, and accounting students or students belonging to other disciplines can develop their learning process resting on a VLE where their training takes place (Drago et al., 2005). The teaching process becomes more adaptable, particularly with regard to timing. Students can simply coordinate their studies with other plans and activities because they always have free, permanent access to all learning materials (Scand, 2020).

From an institutional perspective, the elimination of campus fees makes earning a degree at even the best colleges more affordable, which is another key consequence of the deployment of VLEs. Moodle and Sakai are among the most widely used open-source e-learning platforms at top universities worldwide (Edutechnica, 2019).

On the one hand, several benefits of VLE have been pointed out for both teachers and students (Valyavsky, et al., 2016; Egorkina & Ivanov, 2016; Chauhan et al., 2015; Ramesh & Ramanathan, 2013): teachers can easily create syllabus and maintain it; students can easily get the information and actively participate in learning procedure, judge the teaching and sharing their opinion; working students can take advantage as most of the VLEs are online and pre-planned, practical can be shown online, group activities can be easily organized, setting up exams can be easily arranged through learning management systems and can be managed in the form of online quiz; expenditure of teaching institutions might reduce organizations as the number of lectures, cost of electricity and maintenance of physical classrooms is reduced. Moreover, some studies have pointed out that teachers guiding the students play a central role in virtual learning environment since they become the 'learning catalyst and knowledge navigator' in the student's life and that the massive use of VPL during the pandemic has heavily influenced teachers and scientists' work (César Torres-Martín et al., 2021; Meyer et al., 2004; Gisbert & Bullen, 2015). and the relational impact of the increased use of digital technologies.

On the other hand, several weaknesses of VLEs have been marked, starting from the disadvantages tied to the increased use of technology and long hours spent in front of the screens, the increased workload of teachers, the overhead incurred, the health issues, the boring learning process, the lack for physical classroom interactions (Vagos & Carvalhais, 2022; Torres-Martín et al., 2021)

It has been noted that effective teaching through VLE is very much dependent upon the teacher's good interaction with students, good subject knowledge. From a teacher's point of view, it is a platform where they can try their own new approaches of teaching and interacting, thus calling for educational challenges for both professors and students and marking the gap for a pedagogical approach.

Online learning provides these students with greater access to formal learning environments from which they are physically distant and the flexibility to start their learning journey at any time while being able to work and study (Malan, 2020). Engaging students, whether in a face-to-face classroom or through an online programme, is considered a critical factor in the academic success of students (Buelow et al., 2018). Learner engagement occurs through their behaviours, their emotions and their cognition (Astin, 1984). In online programmes, engagement can be enhanced by social presence, teaching presence and cognitive presence that must be incorporated into online programmes (Garrison & Arbaugh, 2007). All these dimensions are interconnected, and participation depends greatly on how students view them (Buelow et al., 2018). An engagement framework for online teaching and learning has been suggested to combine these presences into social engagement, cognitive engagement, behavioural engagement, collaborative engagement and emotional engagement (Redmond et al., 2018) and trigger opportunities for students to become effectively engaged, and avoid learner isolation, feelings of distance from the institution and high dropout rates (Martin & Bolliger, 2018).

The COVID-19 pandemic opened up a call for adopting a holistic and systems perspective of the world considering the social, economic and environmental concerns of the current and upcoming years (McGuigan, 2021). Focusing the attention on accounting education the trends and future developments in accounting research traced by Rinaldi (2022) point out the need for new accounting and accountability model in the subject areas of public budget reaction, accounting education, public sector, financial markets, and corporate transparency. "Sustainability" and "management accounting" have received little attention in terms of both content (the need to broaden accounting is emerging due to the complex and uncertain scenarios), and in terms of pedagogical techniques, thus encouraging a shift from the teacher as content-provider to the teacher as a facilitator of metacognition (Othman, 2020; Cho et al., 2022). Accounting education has seen significant modifications as a result of the COVID-19 epidemic and needs to be rethought (McGuigan, 2021; Powell & McGuigan, 2023).

While some academics have emphasized the need for increased technology, professional skills, and industry engagement in the post-COVID-19 accounting education system, others have marked the need for the new pedagogical approaches that teaching staff should implement to re-designing the courses for online classes. However, the various methods that have been implemented to encourage social interactions through online platforms have enhanced interaction and aided students' mental health (Perera et al 2021).

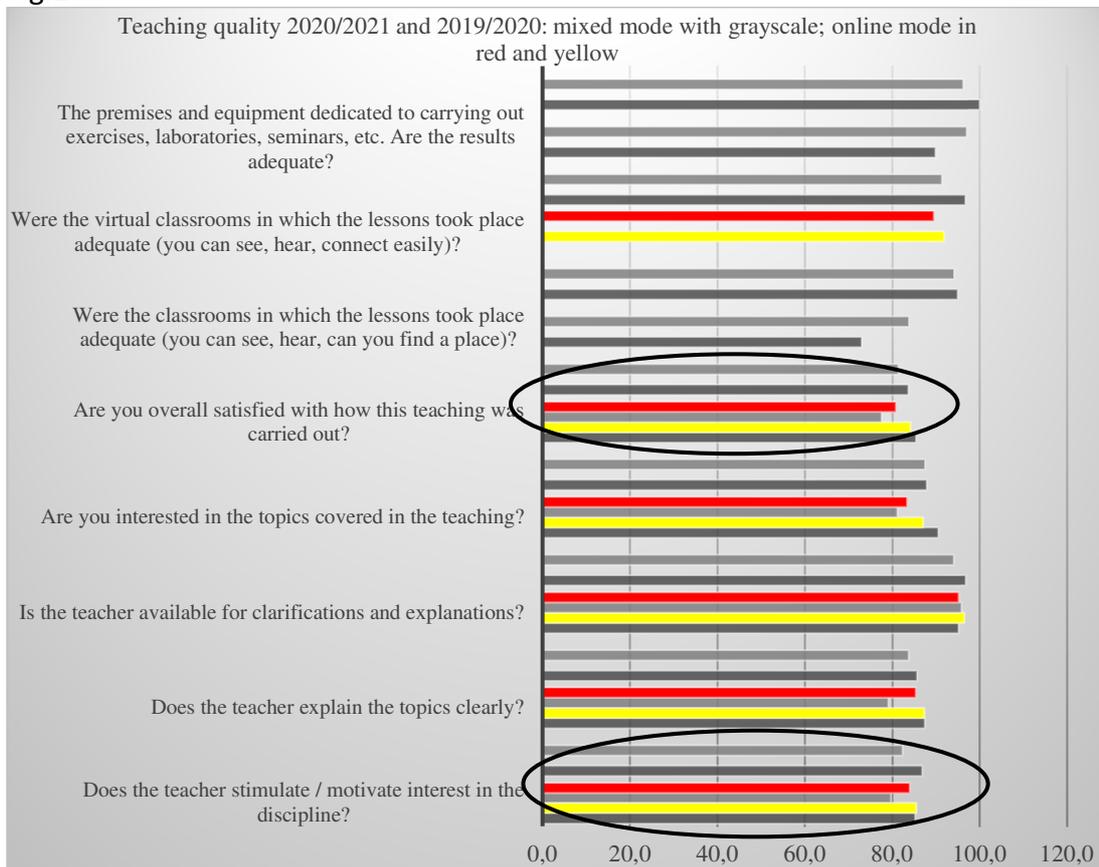
In light of these aspects, Powell and McGuigan (2023) have highlighted the need for a pedagogical evaluation expressively calling for a pedagogy of accounting education". As Rinaldi (2020) noted, the online educational environment demanded a considerable reexamination of accounting education teaching and assessment techniques. These changes cannot only rest on the deployment of technology, but rather necessitate a reexamination of the teaching pedagogy grounded on a review of pedagogical methods and a change in the subject-matter expert's position from subject-matter expert to designer and co-learner, metacognition and process facilitator (Othman, 2020).

4. Empirical research

4.1. Results of Pandemic and post pandemic quality of education and ongoing orientation of student survey

After presenting the theoretical background and in order to understand the impact of this change considering POB (Luthans, 2002b; Luthans & Avolio, 2003), relational coordination (Sánchez et al. 2015) and to focus on accounting education (Sangster et al. 2020), the paper introduces a general reflection based on the ANVUR (Italian agency for the evaluation of university research database) The University analyzed is implementing the Resource theory (Astin, 1984) and during Pandemic 2020, at the end of February suspended, like all the Italian universities, all teaching activities in presence and then was considered compulsory the on line teaching mode (Zannoni, 2020).

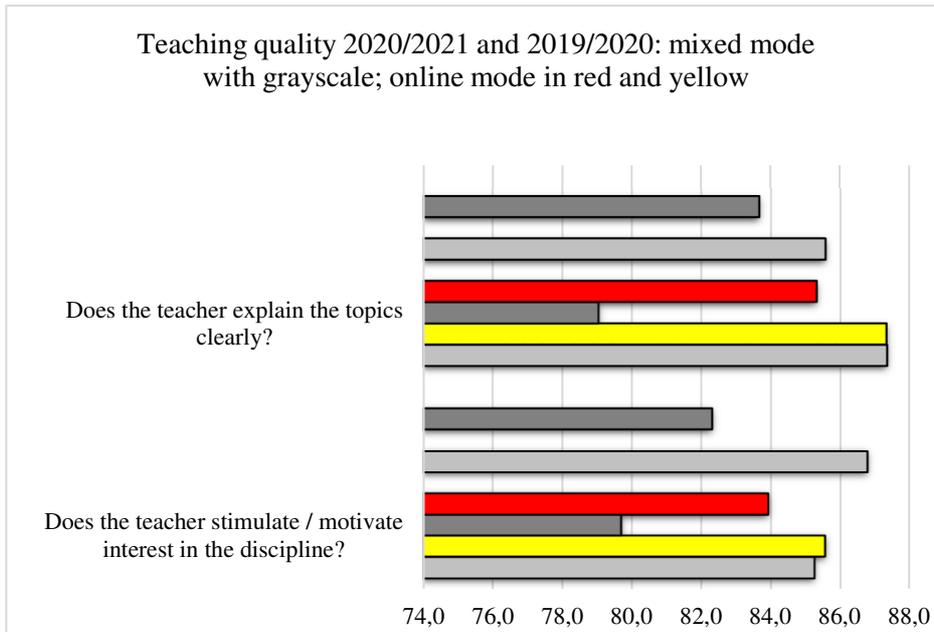
Fig.1



Source: our elaboration of ANVUR data base

The previous Fig .1 shows the general data of the academic years 19/20 and 20/21 of all teaching contents of two degree courses. From these general data, no difference emerges in teaching quality, so it seems that going online has had no effect. If the attention focuses more on the aspects relating to satisfaction and clarity of exposition, some difference between the frontal lesson and the online ones seems to be present (Fig.2).

Fig.2

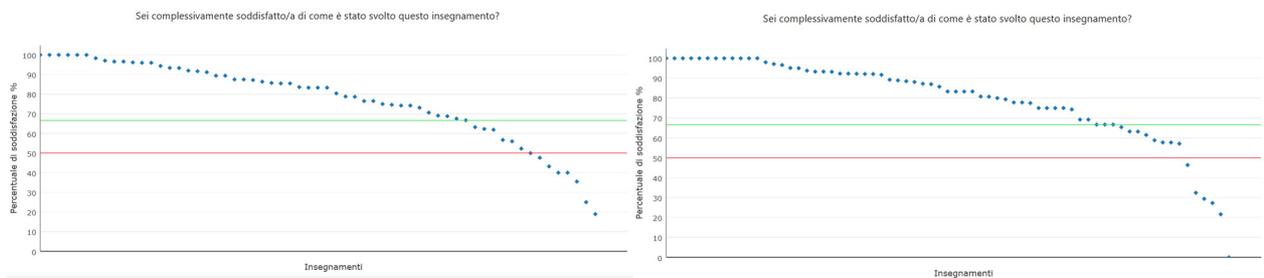


Source: our elaboration of ANVUR data base.

From the results that had been showed above, the fact that in online courses (red line) the teacher stimulates the students less and involves them less, can be considered in this case a trend that reduces POB (Luthans, 2002b; Luthans & Avolio, 2003) and moreover it is necessary to increase efforts to increase relational coordination as Sánchez et al. (2015) suggested.

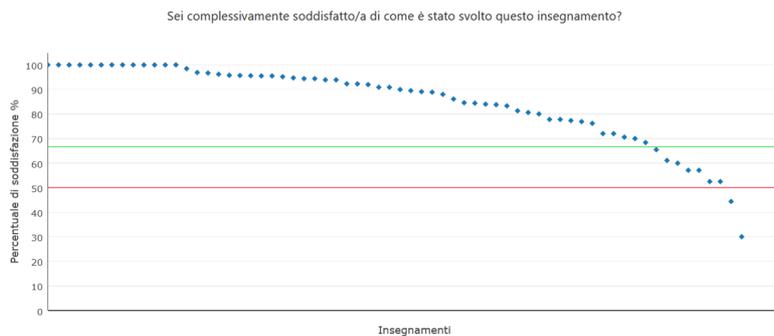
The trend evidenced above is confirmed by the separation of the two courses and the representation of the general trend during three years from 2019 to 2022.

Fig 3-Degree course 1 general trend of student’s answer to the question: “are you overall satisfied with this teaching? (AA 2019/2020; 2020/2021; 2021/2022)



AA 2019/20

AA 2020/2021



AA 2021/2022

Source: publicly available data of the university analysed

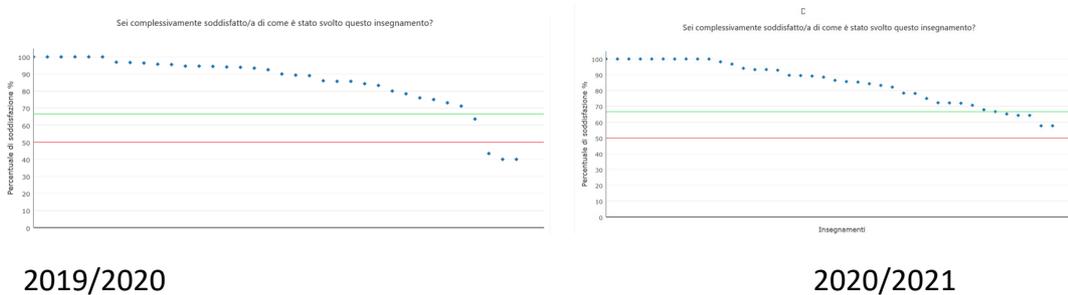
Legend:

- Question: (It) " Sei complessivamente soddisfatto/a di come è stato svolto questo insegnamento?"- (En) "Are you overall satisfied with this teaching?";
- Ordinate axis: (It) percentuale di soddisfazione- (En) percentage of satisfaction;
- Abscissa axis: (It) insegnamenti- (En) teachings.

As can be seen, from the 2019/2020 academic year onwards, the assessments tend to progressively improve respectively in the transition from the online-only mode to the mixed mode and finally to the face-to-face model.

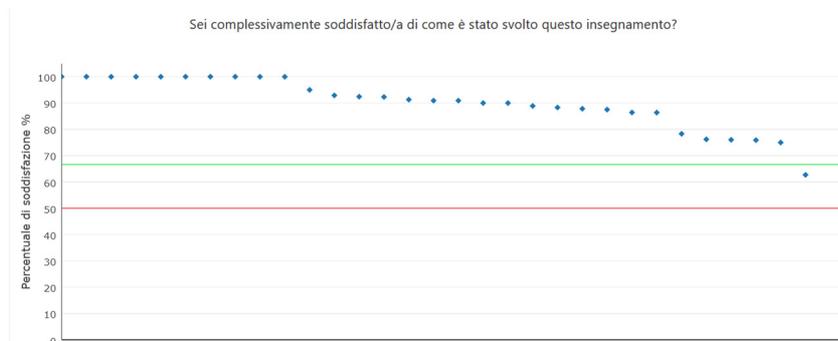
It is interesting to focus on the Degree course 1 about the answers of students of AA19/20(on line) About the accounting course: Question: "Report any difficulties or problems encountered during the course followed." Answers: Student 1: "The only problem faced is caused by the audio, sometimes the line is interrupted and we lose contact with the teacher while she explains." Student 2: "the connection often drops or you hear little"; Student 3: "The only problem faced is caused by the audio, sometimes the line is interrupted and we lose contact with the teacher while she explains."

Fig 4-Degree course 2- general trend of student's answer to the question: "Are you overall satisfied with this teaching? (AA 2019/2020; 2020/2021; 2021/2022)



2019/2020

2020/2021



AA 2021/2022

Source: publicly available data of the university analysed

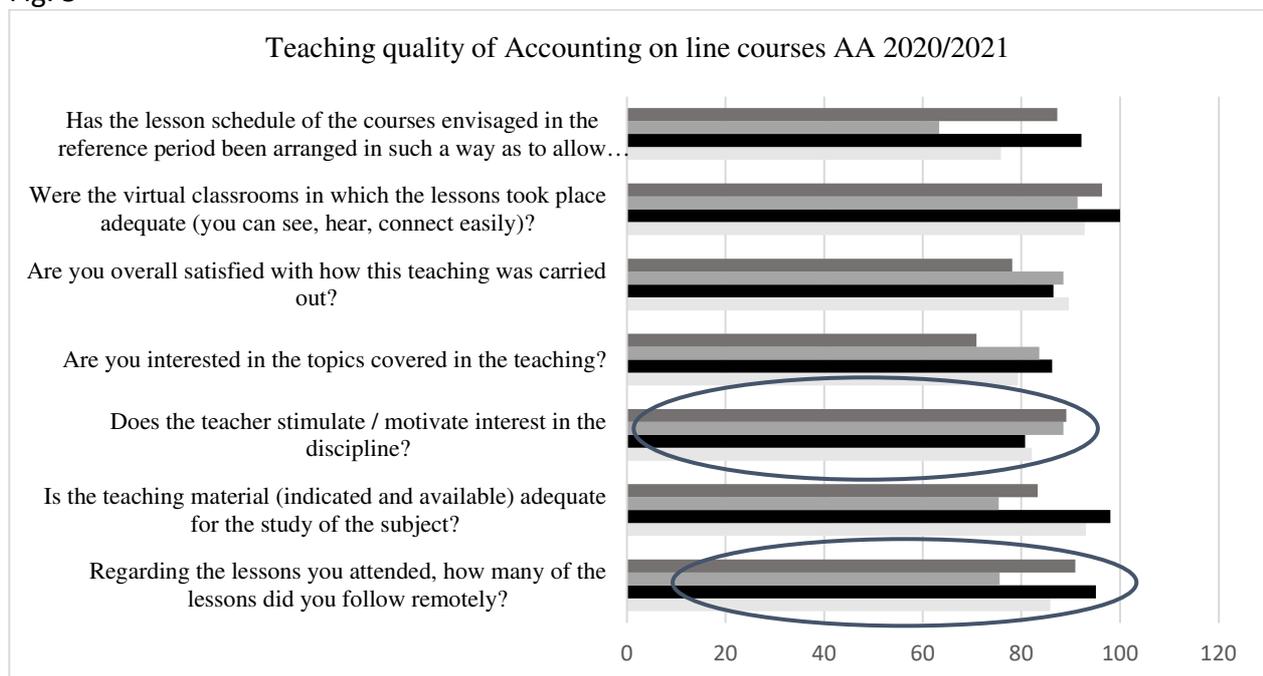
Legend:

- Question: (It) "Sei complessivamente soddisfatto/a di come è stato svolto questo insegnamento?"- (En) "Are you overall satisfied with this teaching?";
- Ordinate axis: (It) *percentuale di soddisfazione*- (En) percentage of satisfaction;
- Abscissa axis: (It) *insegnamenti*- (En) teachings.

The same trend is available in Degree course 2 (Fig. 4) to underline the stress created by on line teaching both for students and for teachers.

After the general analysis of the two Degree courses, the work continues with the analysis of four accounting teaching activities and the attention is focused on what happens when the courses are only in online mode (Fig. 5).

Fig. 5



Source: our elaboration of ANVUR data base.

As it can be observed (Fig.5) that in the face of an increase in hours of lessons only online in accounting courses, there is a decrease of the teacher's ability to stimulate attention towards the discipline as underlined in literature (Sungster et al, 2020). Moreover, there is a reduction of student's overall satisfaction with respect to attendance of the course. Finally, It can be seen a negative correlation between the increase in remote activities and the decrease in the quality of teaching, that is more relevant in accounting teaching courses in comparison with the degree courses considered as a whole.

After the pandemic the following results are very interesting, because describe the impact that students had during on line education of 2020 lock down. The results derive by ongoing orientation of student survey of one of the degree program, that is analyzed before of the same university. The academic year is 2021/2022 and the survey was implemented by the University Orientation Sector, with the aim: "This is the intervention to support the development of the strategic skills of ... students aimed at promoting the enhancement - in a lifelong learning perspective - of the learning and study processes and, consequently, to favor the permanence within the university course and the achievement of its objectives. The intervention envisaged three moments: 1) the survey of the

perceptions of students; 2) return of results; 3) the realization of individual interviews and laboratory courses2” (Report. 2022, p. 1).

For the purposes of our empirical research, it is important to consider above all the results deriving from the second-year students of the DC, the same that is analyzed in Fig. 3, who attended the online courses in the AY 2020/21. In this way the work can upgrade the reflections of the impact that the pandemic had on students themselves.

Among the results of the Report, some are very interesting in order to understand the trowl of Pandemic.

DC students can decide to attribute three levels of importance of each item of the survey: low, medium and high. They attribute low importance to intrinsic motivation for a percentage of 40%, compared to extrinsic motivation which instead represents 40%. Therefore, these students achieve academic goals for reasons mainly associated with external rewards (such as grades, prestige or economic reasons).

They attribute low importance of 53% to internal causality, that means that is, of causes directly dependent on themselves and on their ability to self-control and not on luck or external events.

In general, about this item, more than a third of them, in fact, declare that they do not have an internal locus of control and therefore do not perceive that they have full control over the events related to their university career.

About teacher preparation, the degree of satisfaction with performance aspects of university teaching (e.g., The teachers of the degree course are able to stimulate the interest of the students) of second year students is 44%. In fact, many of the student respondents do not believe that the preparation of the teachers is adequate.

This confirms that the Pandemic has left a very evident aftermath even after the return to face-to-face lessons and that a new world is challenging the teaching methodologies and also the contents that most capture students' interest, such as sustainability. But this topic is analyzed in the next section.

4.2 Pandemic and sustainability education survey

The explorative analysis as follow presented has been carried out from December 2020 to December 2021 through a survey involving three Italian Universities: Bologna, Trento, and Urbino. Information has been grasped by addressing an online questionnaire to students attending Accounting and Accountability courses enrolled in a bachelor's degree, a master's degree, a postgraduate diploma, or a doctoral program. The questionnaire has been implemented as a Google online form announced during the courses and recalled using the “Forum”, a communication tool made available through the university online platform used to interact with the students. Students were thus invited to fill in the form during their first and second courses semesters covering a timeframe of 12 months, the latter including different pandemic waves and related different emergency online educational tools adopted by the University in the same periods.

The questionnaire was composed by 17 queries encompassing both open (6) and closed questions (11) and structured in three main parts. The first one was aimed to retrieve general information, including students' age, gender, their university of belonging, and the type of accounting and accountability courses. The second part of the questionnaire was focused on the content of the courses, on how lessons were delivered and attended, and aimed to disclose students' opinions about their learning experience during the pandemic. The final section was devoted to grasp their opinion about the consistency of the accounting topics in the light of the challenges triggered by the

Covid-pandemic in the company context and the need for/the opportunity to change the business models to tackle with the extraordinary context generated by the pandemic outbreak.

103 answers had been collected and analyzed, 62% provided by male students and 38% by female students, mainly attending a bachelor's degree (84%) or a master's degree (15%); only 1% are represented by Ph.D. students.

In the 12 months under observation students have attended several courses dealing with the macro topics of Accounting and Accountability: Business Administration (64%), Bookkeeping and Financial Reporting (55%), Financial Statement Analysis (45%), International accounting standards (26%), National accounting Standards (29%), Cost accounting (19%), Management accounting (10%); Economics of Sustainability & Accountability (2%) Sustainability and Integrated Reporting, and CSR & Accounting (1%).

Students have predominantly attended courses delivered online only synchronously (70%) and blended courses (70%), while only in a minority of cases they attended courses delivered online only asynchronously, blended courses (partly on campus and partly online - mixed teaching) or they had the opportunity to attend the courses in presence, due to the outbreak restrictions (Fig. 4).

According to the aim of the study, the second part of the questionnaire was directed to disclose students' opinions about their learning experience during the pandemic and to investigate if they appreciated the new tools adopted to deliver the courses to interact with the teachers and their pairs, as well as the difficulties they had to face. Drawing from their replies, the following aspects have been pointed out.

Students have often been forced to tackle Internet connection problems; they had to face initial difficulties in learning the functioning of different platforms used for using materials, video lessons, and exams; the examination modalities have been adapted requiring additional efforts to manage new evaluation assessment and tools and their workload has increased; The online teaching was much more difficult to follow and required expensive computer equipment; students missed the direct interaction with teachers, tutors and their pairs and they felt less involved and motivated; students suffered from the lack of the university life, made by personal relationships among fellows; they didn't feel comfortable intervening/asking questions online and they often opted to keep their camera off and preferred to use the chat to request clarifications and interact with the professors.

Definitely, almost all students prefer face-to-face learning. In this vein, some excerpts, below presented summarises the most relevant features that received the highest frequency among the students interviewed and mark their neative assumption.

"I recognize that distant learning is not the same thing as attending the course in the classroom".

"I suffered from the lack of contact with other students and the professors, the lack of stimuli from peers, lack of social contact, and the monotony".

"Online lessons were very" difficult to follow as there was a lot of social distance between teachers and students."

"From a human point of view, it's demeaning. Distance learning is as comfortable as it is inhumane".

"It was extremely difficult for me to be able to keep concentrated during the lessons, after having spent the whole morning in front of a screen and the afternoon studying and integrating the lessons was very more tiring. Furthermore, the poor human contact negatively affected study performance and mental health in general".

"Attending an entire winter session online is very demanding, and tiring. I feel often lonely, detached, distracted".

"Surely taking all the courses of the first semester online has penalized the quality of my experience".

“Unfortunately, with distance learning, there were several disadvantages, including the lack of interactions with students and teachers, but above all, it was not possible to fully live university life. The poor interaction with teachers and colleagues did not facilitate individual study”.

“In the long run, it was boring and frustrating to follow the online classes every day”.

By contrast, only a few of them expressed a positive evaluation in terms of appreciation of their on line (synchronous and asynchronous lessons), as marked by the following sentences, retrieved from the questionnaire:

“I attended the online courses, in my opinion, a great solution”.

“Distance learning was very peaceful and I felt comfortable with the hybrid methods (synchronous and asynchronous) proposed by the teachers of my courses, the attention was always high in all courses”.

“The online teaching experience was overall positive. Synchronous online lessons are better than asynchronous as they allow us direct interaction with the professors. Following the lessons at home allows me to have more time available and to be able to take notes better”.

“My experience was positive, despite all the difficulties, students and teachers were able to make the most to tackle a dramatic situation”.

“The online teaching was very convenient.”

Finally, the third part of the questionnaire was aimed to capture students’ perceptions about the consistency of the accounting programs and need for a change in the accounting courses topics and contents. The sentences below provided, offer a picture of the students’ perceptions about the “not consistency” or disalignment between the current programs and contexts of their courses and the real needs and challenges that companies should face.

“The pandemic marked the need for new accounting models more capable to manage, assess, monitor and disclose the company’s value and its intangible assets”.

“The pandemic highlighted the need to rethink accounting models because socio-economic problems have increased significantly”.

“It stressed the limitations of current traditional accounting models and the need for new metrics”.

“We have to take the chance to push companies to use "accounting" to internalize these urgent issues”.

“It has allowed companies to develop measurement systems in addition to traditional ones, and therefore to innovate their accounting and reporting models”.

“It has highlighted the need to rethink current measurement systems by applying a more holistic approach to them”.

“I believe that the pandemic has revealed the need for greater flexibility in accounting models”.

“Compared to traditional management and control models the pandemic has made it difficult to define objectives to achieve, and adequate indicators and metrics”.

“It was not possible to predict such an event, so we must not draw from previous experiences, but we should think that further and even more serious events (and consequent crises) could also happen in the future”.

“I believe the pandemic was an excellent chance to acknowledge the gaps of the current accounting models”.

“It is clear that the operating profit is no longer a metric to measure the overall value of a company”.

“Accounting in general must be as close as possible to people, to better understand how people think and make choices, especially in these moments of crises”.

“The pandemic can offer the possibility to change the accounting models, considering a social and ethical point of view”.

“The pandemic has made companies aware of issues such as sustainability and respect for the environment, therefore it is necessary to rethink the "accounting" models and broaden their perspectives in order to incentivize companies towards new reporting tools”.

“We need to take advantage of the opportunity to push companies to use "accounting" to internalize these urgent issues!”.

The pandemic has offered us the opportunity to rediscover the business as a "community within communities": it is essential to further develop the "accountability" models to give space to this broader and deeper highlight the centrality of the person and relationships”.

“I believe that the pandemic has affected the possibility of rethinking accountability models improving stakeholder inclusion and engagement”.

Conclusion

As emerged from the data and research presented in the previous paragraphs, the quality of teaching, particularly in accounting, undergoes a significant change in the transition from face-to-face to remote mode at the same in a Resource theory Academy (Astin, 1984). This method leaves a worrying repercussion even later in time to underline the need to innovate methodologies and approaches (Sangster et al., 2020).

So, amongst the issues that arose from the study, there are some particularly interesting that are about students and are relative to the lack of face-to-face relationships among students and teachers, thus is corroborate the results of earlier trainings studies (Sangster et al., 2020). The transition to online courses didn't create so many problems in terms of technical settings and apparatus as expected for students, and the possibility of using new gears based on innovative technologies benefits students to be more efficient and produces substantial reserves in terms of time and expenses. However, it also contributed to stress concerning the education course and exams that had to be done connected (Sangster et al., 2020).

This makes the application of the POB difficult as the interaction of all the senses is not possible except that of speech and sight which preclude the possibility of a complete interaction that is able to activate the relative circuits, which are necessary for the application of the POB (Luthans, 2002b; Luthans & Avolio, 2003; Luthans & Youssef, 2004; Youssef & Luthans, 2007).

“Time will originate, we hope as soon as possible where countermeasures will be found and implemented. Distance university teaching during and after the pandemic: impact and perspectives of an emergency measure to the coronavirus Covid-19 and organizational adjustments and logistic effective to the point of allowing a return full attendance of lectures at universities. At that precise moment, online teaching will stop being a necessity linked to the emergency, for become a possibility, or better still an opportunity... the data analyzed in this article allow to conclude that, in the post-pandemic phase, the implementation of a mixed and hybrid teaching offer, ..., and that at the same time can intervene to improve and compensate to the deficits of both, adapting flexibly and pragmatic to environmental and contextual conditions and to the unexpected, it could be the best of the possible responses to an event that has put a strain on them the tightness not only of the entire system, but also of the existential planning of millions of male and female students, that they cannot stop recognizing in the university and in the career choice undertaken a reference important in one's identity-building process, social and professional.”(Zannoni, 2020, p.83).

From the point of view of the contents, the research demonstrates a progressive demotivation of students and an increased interest of them towards the themes of sustainable development and its

measurement. This underlines how, also from the point of view of the main aspects of the teachings provided in the degree courses, it is necessary to re-focus the attention on aspects that are still too little covered.

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