

**INCLUSION AND PARTICIPATION IN UNIVERSITY EDUCATION  
COMPARATIVE SURVEY ON LEARNING OUTCOMES ACHIEVED BEFORE  
AND DURING THE PANDEMIC PERIOD BY STUDENTS WITH DISABILITIES**

**INCLUSIONE E PARTECIPAZIONE NELLA FORMAZIONE UNIVERSITARIA  
INDAGINE COMPARATIVA SUI RISULTATI DI APPRENDIMENTO RAGGIUNTI  
PRIMA E DURANTE IL PERIODO PANDEMICO DAGLI STUDENTI CON  
DISABILITÀ**

**Lucia Martiniello**

Pegaso University

lucia.martiniello@unipegaso.it

**Clorinda Sorrentino**

Pegaso University

clorinda.sorrentino@unipegaso.it

**Abstract**

The study made increases and deepens a comparative survey carried out at the end of last year on a sample made up of students with disabilities from Three-year degree in Motor Science courses and Master's Degree in Sports and Motor Activities Managementones, including in the research students with disabilities of the 11 courses of study activeat the Pegaso Telematic University in the period under investigation.

The purpose of the study has been to test the stability, evenin a pandemic period, of the strategies proposed by the Inclusion and Participation Office of Pegaso Telematic University.

The University gives an inclusion program focused not only on assistive IT equipment but also on corrective and /or improvement actions, while the contents dont'tsufferany quantitative attenuations, but at the most, reconsiderations from a procedural point of view.

Starting from the data relating to the students who rely on the services of the Inclusion and Participation office, a comparative analysis was carried out between the data relating to the period from March '19 to March '20 and those relating to the following 12 months, that's to say the first year of the pandemic. The sample studied is made up of students with disabilities enrolled in degree courses of Pegaso Telematic University whoad here to the inclusion and participation program: the data being compared were the number of students with disabilities and the number of examstaken by students joining the inclusion project before and during the pandemic period.

The aim has been to demonstrate that having a well-structured training project, even in extreme situations suchas the current one which has seen relevant organization aldificulties in the sector of inclusion of many institutions, it is possible to achieve the expected learning out comes.

Lo studio condotto amplia e approfondisce un'indagine comparativa effettuata alla fine dello scorso anno su un campione costituito dagli studenti con disabilità dei Corsi di Laurea Triennale in Scienze Motorie e Magistrale in Management dello Sport e delle Attività Motorie, includendo nella ricerca gli

iscritti con disabilità degli 11 corsi di studio attivi presso l'Università Telematica Pegaso nel periodo oggetto di indagine.

Lo scopo dello studio condotto è stato quello di verificare la tenuta, anche in periodo pandemico, delle strategie proposte dall'Ufficio inclusione e partecipazione dell'Università Telematica Pegaso. L'Ateneo offre un programma di inclusione incentrato non solo su dotazioni informatiche assistive ma anche su azioni a valenza correttiva e/o migliorativa, mentre i contenuti non subiscono attenuazioni di tipo quantitativo, ma al più riconsiderazioni dal punto di vista procedurale.

Partendo dai dati relativi agli studenti che si affidano ai servizi dell'ufficio inclusione e partecipazione, è stata effettuata un'analisi comparativa tra i dati relativi al periodo che va da Marzo '19 a Marzo '20 e quelli relativi ai 12 mesi successivi, ovvero il primo anno di pandemia.

Il campione studiato è costituito dagli studenti con disabilità iscritti ai corsi di laurea dell'Università Telematica Pegaso che aderiscono al programma inclusione e partecipazione: i dati oggetto di comparazione sono stati il numero degli iscritti con disabilità e il numero di esami sostenuti dagli studenti aderenti al progetto inclusione prima e durante il periodo pandemico.

L'obiettivo è stato quello di dimostrare che in presenza di un progetto formativo ben strutturato, anche in situazioni estreme quale quella attuale che ha visto notevoli difficoltà organizzative nel settore dell'inclusione di molte istituzioni, è possibile raggiungere i risultati di apprendimento attesi.

**Parole chiave:** Emergenza sanitaria, didattica a distanza, formazione superiore, studenti con disabilità, inclusione.

**Keywords:** Sanitary emergency, distance learning, Higher Education, students with disabilities, inclusion.

### **Socio-educational context of reference**

With the health emergency, the suspension of face-to-face teaching and the activation of remote teaching for all educational orders, despite having ensured teaching continuity that, otherwise would have been compromised, has brought out the poor resilience of the inclusive strategies adopted by most of the educational institutions. According to ISTAT data "between April and June 2020, over 23% of students with disabilities (about 70 thousand) did not attend the lessons" (ISTAT 2020). From the survey relating to the 20/21 school year, focused on the period between April and June 2021, it emerged that the reduction of the suspension periods, together with a better organization by schools, have led to a considerable increase in participation levels of students with disabilities to distance learning, with a share of excluded that stands at 2.3% compared to 23% recorded in the previous year. This share rises to 3.3% in schools in the South, with peaks of 4% in Calabria and Campania (ISTAT 2021).

The reasons for the exclusion of people with disabilities from teaching activities are related to multiple factors and that go beyond the availability of IT tools, for which the institutions have worked a lot. "The reasons that made it difficult for pupils with disabilities to participate in distance learning are different; among the most frequent there are the severity of the disease (27%), the difficulty of family members to collaborate (20%) and socio-economic awkwardness (17%). For a less consistent but still significant share of children, the reason for the exclusion is due to the difficulty in adapting the Educational Plan for Inclusion (IEP) to distance learning (6%), to the lack of technological tools (6%) ) and, for a left part, the lack of specific teaching aids (3%) "(ISTAT 2020). The exceptional situation that we had to face has,

thus, brought out, even more clearly, the limits of our education system, with particular reference to the ability to include the multiple forms of diversity present in the social reality: it clearly emerged the unreasonableness of standardized learning paths, which do not take into right consideration the personal characteristics of each student.

A dynamic approach is crucial to face the multiplicity of disadvantage situations that we deal with both at the micro level (against didactic and curricular rigidity) and at the macro level (in relation to access to university courses). It is a priority to prepare by making contexts, methods and attitudes inclusive for all (Cottini,2020).

A university institution is too often considered inclusive only because it complies with current legislation, with the establishment of offices in charge, contact people and delegates for Disability Policies. Unfortunately, however, the University Offices are seen as tools for containing disability, limiting to treat the individual case but leaving intact the general organizational structure. Its real action must, instead, be based on fundamental values such as participation, equity, in a more general perspective of social equity and right educational opportunities for people with disabilities (Terzi, 2005).

A university institution can be considered inclusive not for the number of students with disabilities, but for the processes and procedures it adopts to be truly inclusive. "It is a challenge that requires the overcoming of a measuring perspective of the" performance "of services through indicators to move to the concrete and real assumption of" commitments ", contributing day after day in micro-actions and decisions to the construction of" repertoires "of aspirations according to inclusive values (Santi, 2017).

To be inclusive, universities have to change both in terms of tools and teaching strategies. It is essential to go beyond the particular and have a systemic vision of the management of the needs of people with disabilities. Using online resources and using ICT in order to make contexts more inclusive is certainly important, considering the potential of assistive technologies, but it is not enough, the pandemic period has demonstrated it and still doing so with a consequent shift of educational activities into a virtual environment.

The idea that teaching practices designed for face-to-face training could be suddenly switched in generalized manner into online training only had the result of encouraging the idea that DAD (distance learning) is a palliative, a necessary diminutio of what could be done in presence. In e-learning, instead, meticulous, analytical planning, based on the student's activities, is essential for the effectiveness of the training proposal. It is due to the high level of competence required that, more than in schools, the transition to online training has found ready availability in university contexts that have already been practicing a blended training model for some time especially in telematic universities.

### **The program for inclusion and participation in the test bench of the health emergency from Covid19**

Pegaso Telematic University has developed a program aimed at the inclusion of students with disabilities focused not only on assistive IT equipment but also on the training and specialization of the staff in the offices which, coordinated by a special teaching teacher and in

collaboration with the teachers of the individual disciplines have been enabled to propose corrective and / or improvement actions and, in any case, facilitating the maximum possible inclusion.

The procedures developed by the inclusion office are inspired by the concept of Universal Design for Learning, (UDL) developed by the CAST (Center for Applied Special Technology), and by the principles identified, that is: providing students with multiple tools for the representation of information, so that they can acquire information and knowledge in the most appropriate ways, provide students with different tools of expression in order to give them the opportunity to express themselves and show what they know, stimulate interest and motivation for learning (CAST).

To ensure maximum inclusion, the University, through the Inclusion and Participation Office, set up in March 2015, pays considerable attention to the tools of accessibility even before of the contents or methods of academic work which, in any case, do not suffer quantitative attenuation, but, at the most, reconsiderations from a procedural point of view.

The prerogative of the office is to pursue the principle of fairness: in fact, the same training project is proposed to all students, but with the addition of some special precautions that become valuable for people with disabilities and decisive for their access to the didactic material and didactic experiences that the University proposes and requests. "In order to get personalization achievable, it must be meant as the provision of unique but open devices, within which each student can act differently based on their abilities, skills and needs" (Sarracino 2019, p.51). The goal is to pursue not only the personalization of teaching activities, but also that of "appealing to the social dimension of learning through active and participatory teaching proposals" (Booth and Ainscow 2011, p.48), which make use of ICT already integrated into the educational platform in use.

The University intervenes with forms of mediation suggested by the type of need with systemic interventions, with a specific planning of the didactic intervention from the moment of enrollment and with subsequent monitoring carried out by the specific office in charge. The inclusion program starts from the phase of taking care of the student enrolled, with the presentation of a specific form with the information necessary for suitable inclusion measures, application of the measures identified with activation of the procedures to facilitate access to didactic materials (if necessary), as well as the activation of the procedures for facilitating / mediation of the exams. The intervention aimed at each student is systemic so it is designed from the moment of enrollment and is followed by the office in charge, while extemporaneous interventions without a customized project are excluded.

The distinction between the different types of disabilities and the implications they have in the planning of personalized educational courses is fundamental for the office's activities. The first distinction made by the offices is undoubtedly that between physical-sensory disabilities and cognitive disabilities. In fact, if for the former it is sufficient to equip students with software or hardware aids, already compatible with the teaching platform, in the case of students with learning difficulties, we ensure that technologies can favor the creation of personalized study environments, and exercise specific skills, promote multi-sensory learning processes, use different media channels according to the specific learning objective (Trentin 2019, p. 60-61).

As a confirmation of the need to get personalized training projects and strategies aimed at specific needs, it is possible to consider the data that emerged from the survey which encourages us to believe that, in the presence of clear inclusive strategies, even in exceptional, if not unimaginable, situations repercussions on people with disabilities or those with special educational needs can be considerably limited if not eliminated, making the most of the situation of momentary equality between the restriction of personal freedom imposed by the health emergency and that determined by one's psychophysical conditions.

## Experimental verifications

To test the performance of the services offered by the inclusion and participation office during the pandemic period, a "preliminary" analysis of the number of participants in the inclusion program was carried out, in the period from March 2019 to March 2020, i.e. the year before the first lockdown, and the one that runs from March 2020 to March 2021, to evaluate, having as a quantitative data the number of participants in the program and the targets achieved (exams taken), the effectiveness of the proposed strategies by comparing the data prior to the emergency health and those relating to the first year of the pandemic.

The inclusion and participation office, which has been providing its services since March 2015, in the period between March 2020 and March 2021 testified the adhesion to the program of 633 students with disabilities among the 11 degree courses active in the academic year 2020 / 2021, while in the previous 12 months there were 463 adherents to the inclusion program.

For the Degree Programs in Business Administration and Economic Sciences, the participants in the inclusion program in the period between March 2019 and March 2020 are 175.

As shown in Figure 1, 122 students (69.71%) are enrolled in the Bachelor's Degree in Business Administration (L-18) and 53 (30.29%) are students enrolled in the Master's Degree in Economics (LM-56).

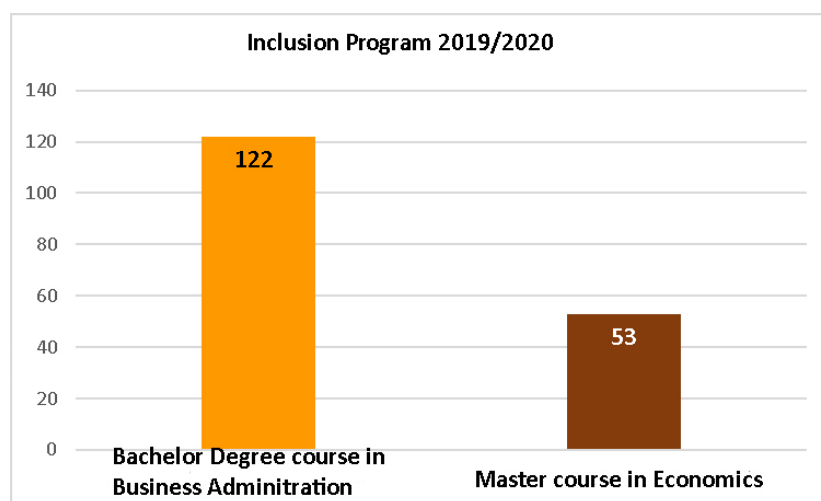


Figure 1: Students participating in the March 2019-March 2020 inclusion program.

In the period between March 2020 and March 2021, there are 229 participants in the inclusion program (figure 2), of which 160 (69.87%) are enrolled in the Bachelor's Degree in Business Administration (L-18) and 69 (30, 13%) are enrolled in the Master's Degree in Economics (LM-56).

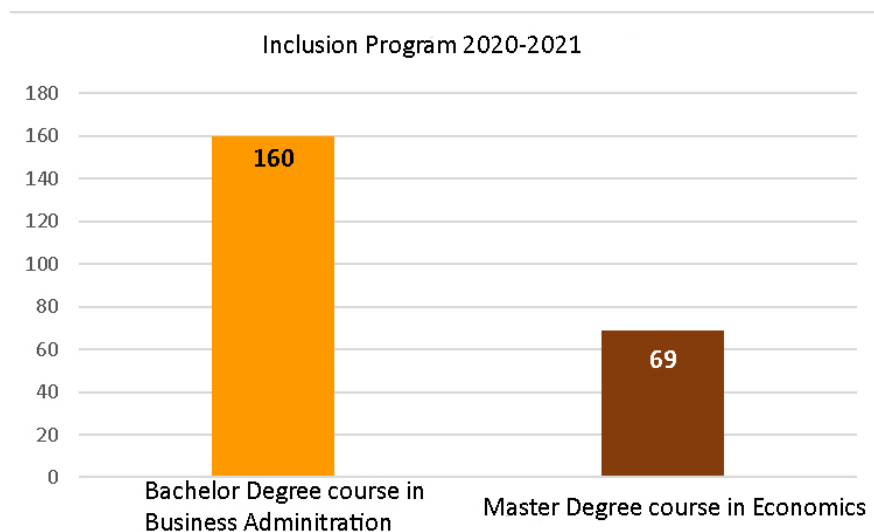


Figure 2: Students participating in the March 2020-March 2021 inclusion program.

The Bachelor's degree students who participated in the program both in the first and in the second time period considered are 91, while the Master's degree students are 38.

To verify the difference in the number of exams taken between the two time periods considered, 4 bands were formed as follows:

- Range 1 = from 1 to 3 additional exams taken;
- Band 2 = from 4 to 6 additional exams taken;
- Band 3 = from 7 to 9 additional exams taken;
- Band 4 = 10 to 13 additional exams taken.

Among the Bachelor's degree students, 10 of them (10.99% of the total Bachelor's students attending the program in both periods) took the same number of exams in both time periods considered.

41 students (45.06% of the total Bachelor's students attending the program in both periods) took more exams during the period from March 2019 to March 2020, of whom 19 (46.34%) are positioned in Band 1 ; 16 (39.02%) of them in Band 2; 4 of them in Band 3 (9.76%) and 2 of them (4.88%) in Band 4.

40 students (43.95% of the total three-year students attending the program in both periods), on the other hand, took more between March 2020 and March 2021: 15 of them (37.5%) are

positioned in Band 1, 19 of them (47.5%) in Band 2, 5 of them (12.5%) in Band 3 and 1 of them (2.5%) in Band 4 (figure 3).

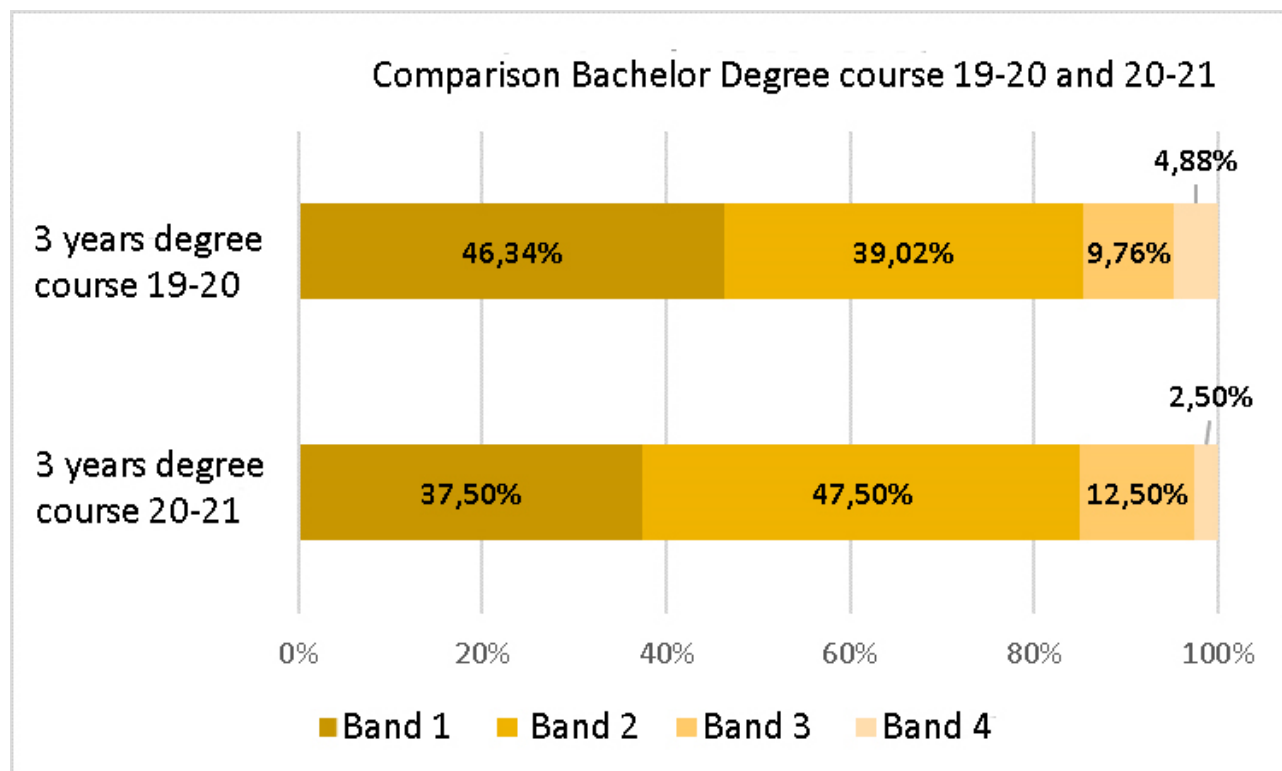


Figure 3: Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: Bachelor of Business Administration students.

There are 23 Master's degree students who have taken multiple exams in the first period (2019-2020) (60.53% of the total Master's degree students attending the program in both periods), of whom 9 of them (39.13%) in Band 1, 3 of them (13.04%) in Band 2; 6 of them (26.09%) in Band 3 and 5 of them (21.74%) in Band 4.

In the second period (2020-2021), 14 students have taken more exams (36.84% of the total Master's students attending the program in both periods), of which 3 of them (21.43%) in the bracket 1, 7 of them (50%) in Band 2 and 4 of them (28.57%) in Band 3 (figure 4). There are no students who are positioned in Group 4.

One student (2.63% of the total Master's students attending the program in both periods) took the same number of exams both between March 2019 - March 2020 and between March 2020 - March 2021.

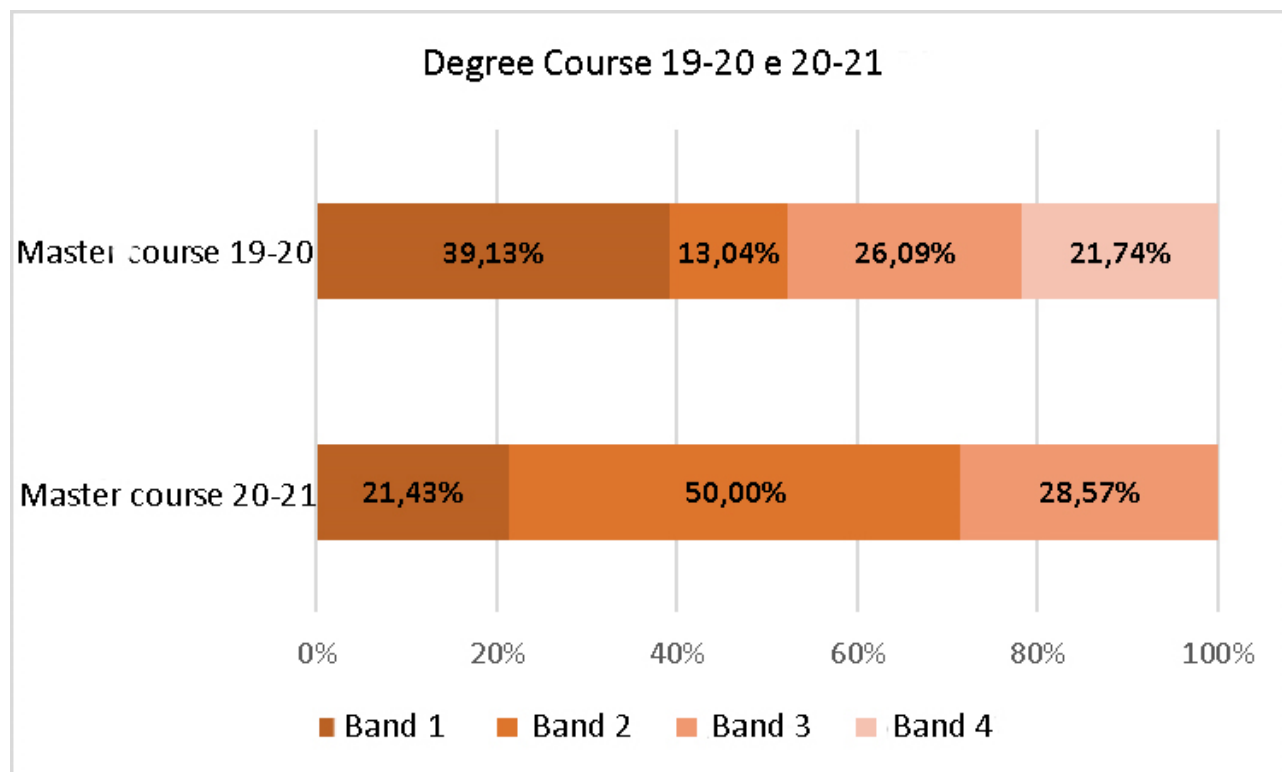


Figure 4: Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: Master of Science students in Economics.

The Bachelor's degree students who participated in the program only between March 2019 and March 2020 are 31, while those of the Master's Degree who participated only between March 2019 and March 2020 are 16. The interruption is due to the fact that in the first period of reference have obtained the degree.

For the LMG-01 Law Course (Master degree), there are 44 participants in the inclusion program in the period between March 2019 and March 2020.

In the period between March 2020 and March 2021, there are 52 participants in the inclusion program (Figure 5).



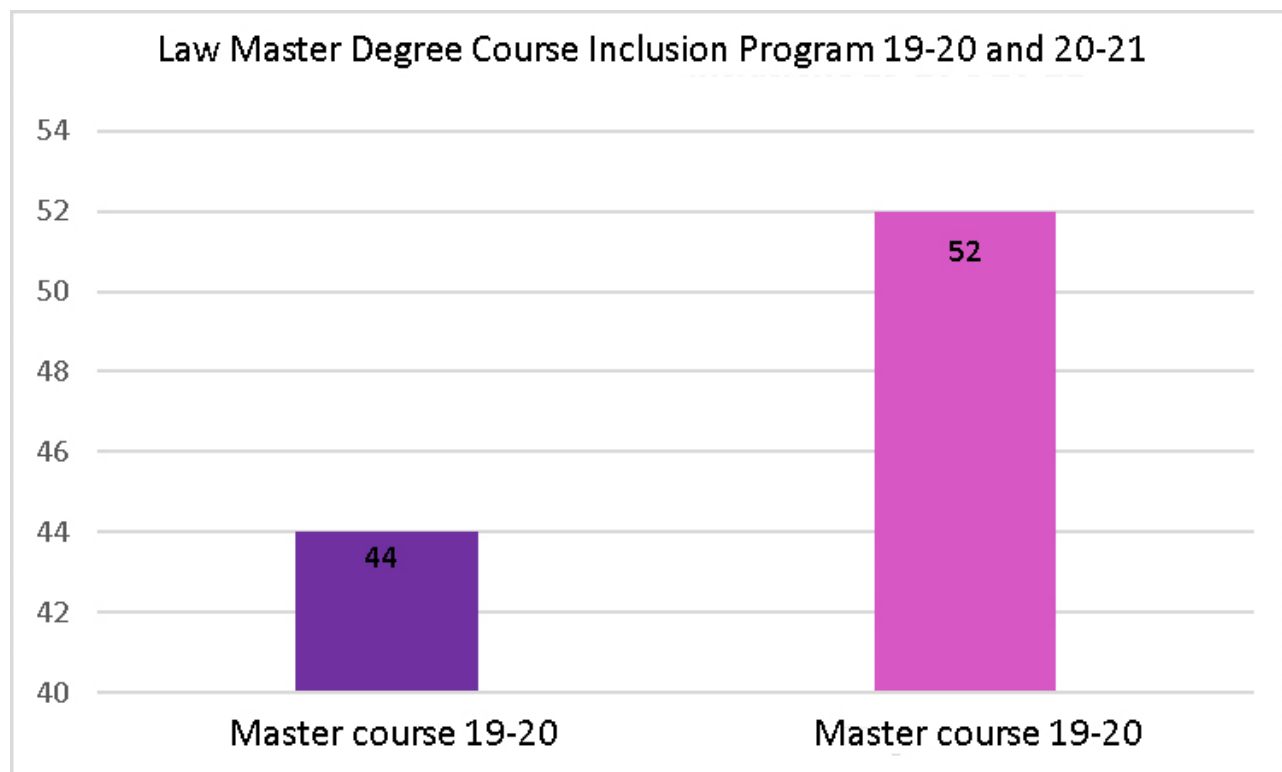


Figure 5: Students participating in the inclusion program in the two time periods considered.

The students who participated in the program both in the first and in the second time period considered are 32.

To verify the difference in the number of exams taken between the two time periods considered, 4 bands were formed as follows:

- Range 1 = from 1 to 3 additional exams taken;
- Band 2 = from 4 to 6 additional exams taken;
- Band 3 = from 7 to 9 additional exams taken;
- Band 4 = 10 to 13 additional exams taken.

There are 15 Master's degree students who have taken more exams in the first period (2019-2020) (46.87% of the total Master's degree students attending the program in both periods), of whom 5 of them (33.34%) in Band 1, 7 of them (46.66%) in Band 2; 3 of them (20%) in Band 3; there are no students who are in Band 4.

In the second period (2020-2021), 15 students have taken more exams (46.87% of the total Master's students attending the program in both periods), of whom 6 of them (40%) in Band 1, 4 of them (26.67%) in Band 2, 4 of them (26.67%) in Band 3 and 1 of them (6.66%) in Band 4 (figure 6). Two students (6.26% of the total Master's students attending the program in both periods) took the same number of exams in both periods.

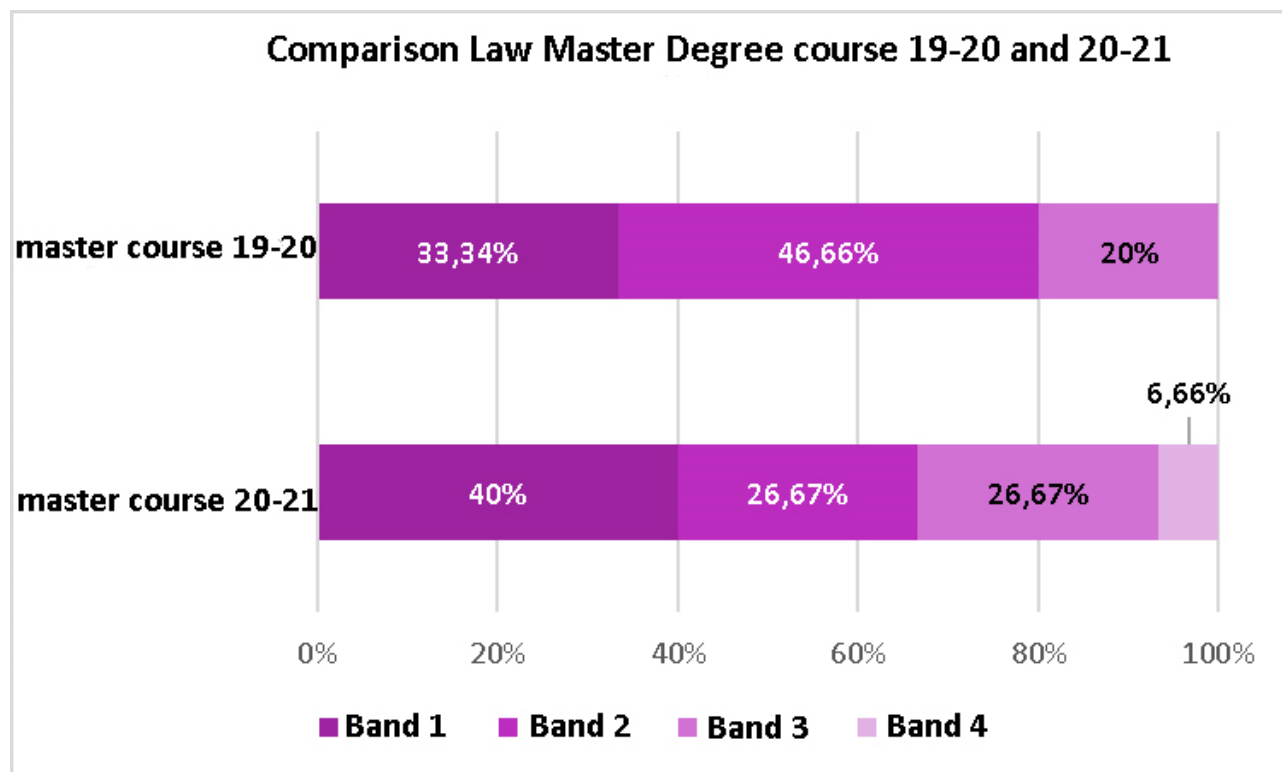
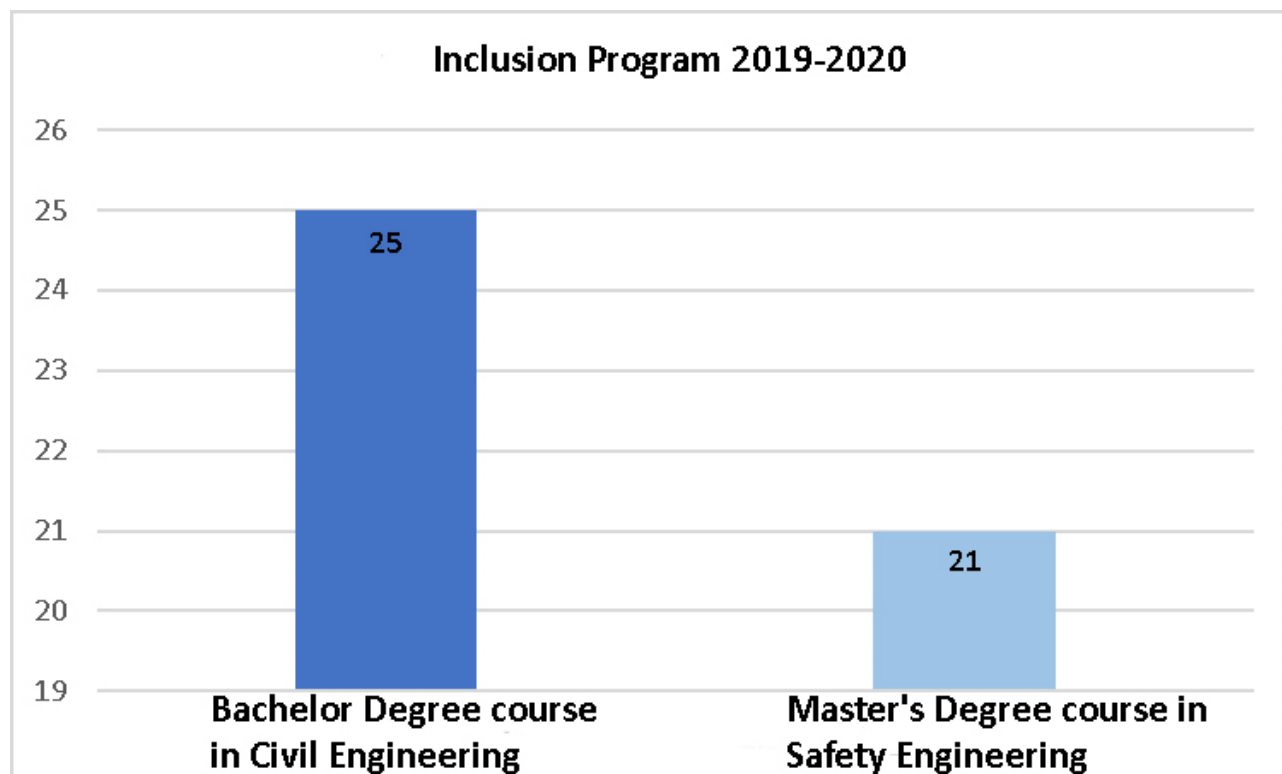


Figure 6: Comparison of participants in the inclusion program between the two time periods due to differences in the number of exams taken: Master of Law students (LMG-01).

There were 12 Master's Degree students who participated only between March 2019 and March 2020. The interruption is due to the fact that they obtained the degree in the first reference period.

For the Degree courses in Civil Engineering L-7 and Safety Engineering LM-26, the participants in the inclusion program in the period between March 2019 and March 2020 are 46.

As shown in figure 7. 25 students (54.35%) are enrolled in the Bachelor's Degree in Civil Engineering (L-7) and 21 (45.65%) are the ones enrolled in the Master's Degree in Safety Engineering (LM- 26).



*Figure 7: Students participating in the March 2019-March 2020 inclusion program.*

In the period between March 2020 and March 2021, there are 61 participants in the inclusion program (figure 8), of which 26 (42.62%) are enrolled in the Bachelor's Degree in Civil Engineering (L-7) and 35 (57, 38%) are enrolled in the Master's Degree in Safety Engineering (LM-26).

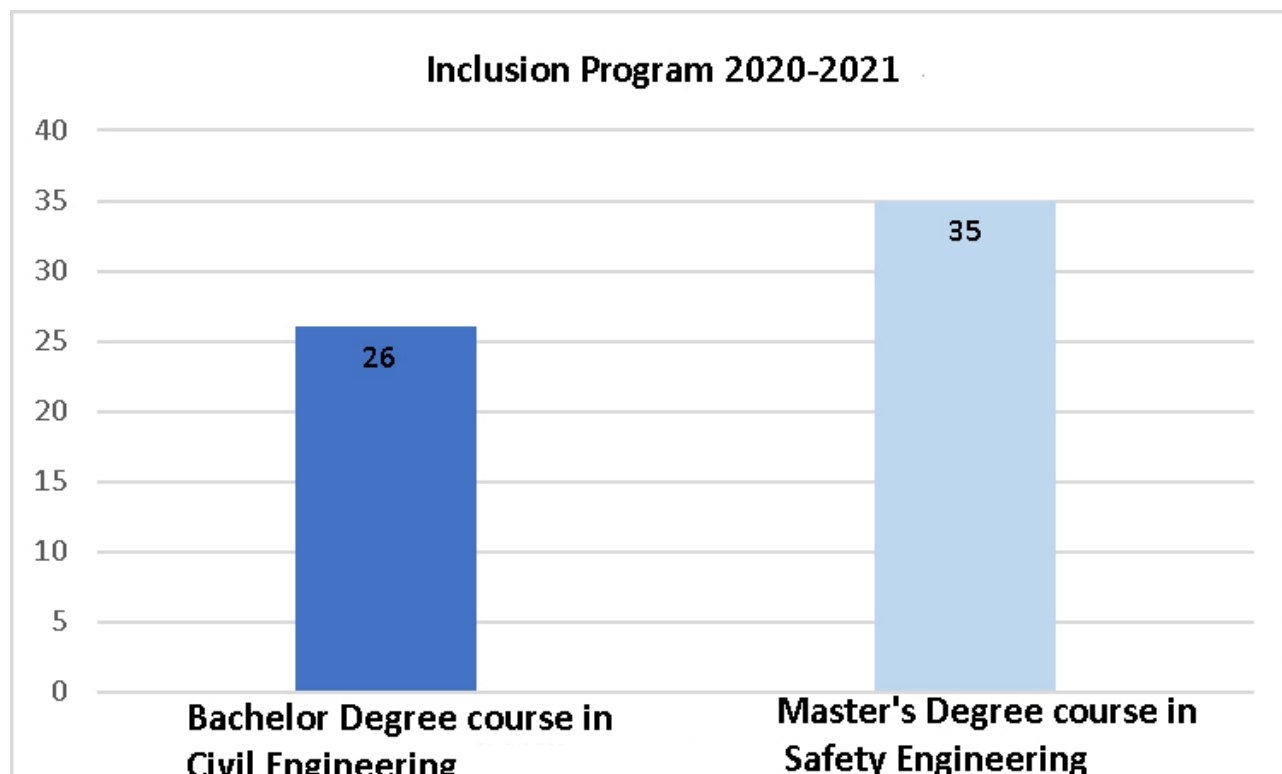


Figure 8: Students participating in the March 2020-March 2021 inclusion program.

The Bachelor's Degree students who participated in the program both in the first and second time periods considered are 19, while the Master's Degree students are 17.

To verify the difference in the number of exams taken between the two time periods considered, 4 bands were formed as follow:

- Range 1 = from 1 to 3 additional exams taken;
- Band 2 = from 4 to 6 additional exams taken;
- Band 3 = from 7 to 9 additional exams taken;
- Band 4 = from 10 to 13 (and more) additional exams taken (In only one case, in the Master's Degree course, 19 more exams were taken in the second period of time; this case was included in Band 4).

Among the Bachelor's degree students, 2 of them (10.53% of the total Bachelor's students attending the program in both periods) took the same number of exams in both time periods considered.

9 students (47.37% of the total Bachelor's students attending the program in both periods) took more exams during the period from March 2019 to March 2020, of whom 4 (44.45%) are positioned in Band 1 ; 2 (22.22%) of them in Band 2; 2 of them in Band 3 (22.22%) and 1 of them (11.11%) in Band 4.

8 students (42.10% of the total Bachelor's Degree students attending the program in both periods), on the other hand, took more between March 2020 and March 2021: 5 of them (62.50%) are positioned in Band 1, 2 of them (25%) in Band 2, and 1 of them (12.50%) in Band 4 (figure 9). There are no students who are positioned in Band 3.

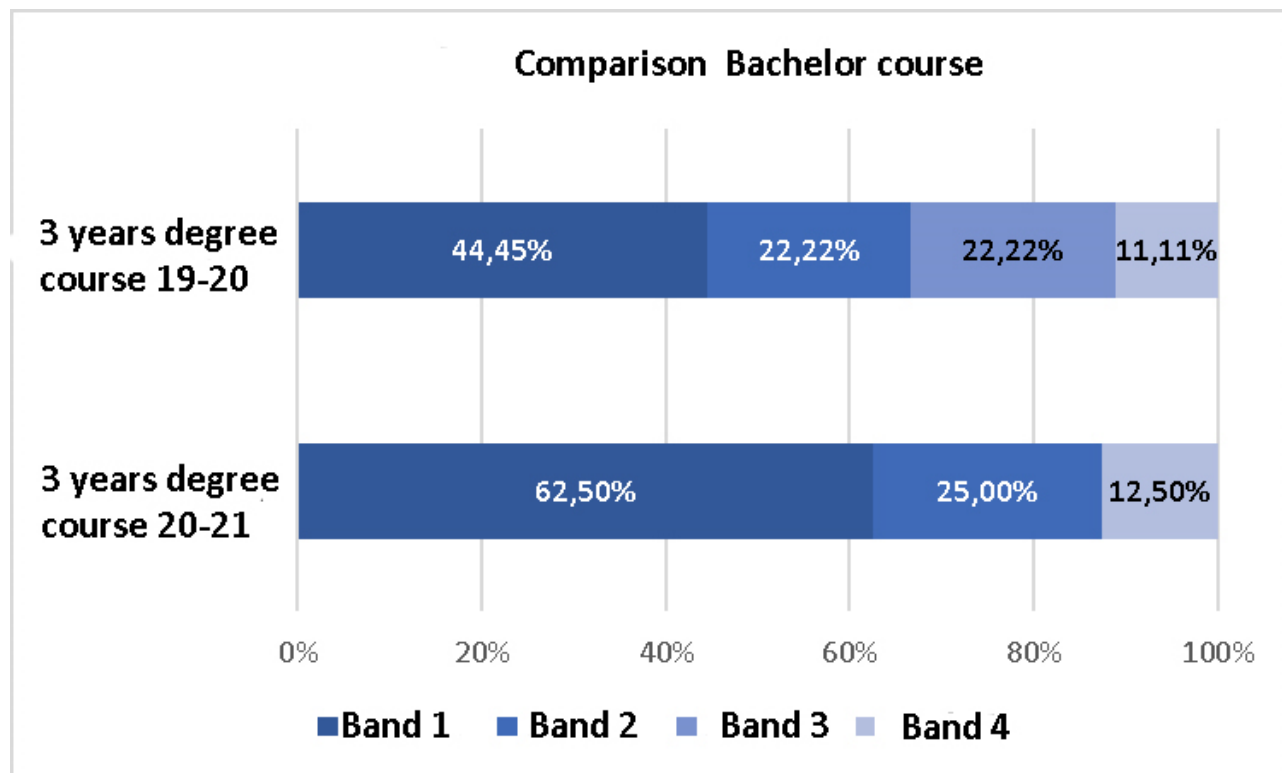


Figure 9: Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: Bachelor of Civil Engineering students (L-7).

The Master's degree students who have taken more exams in the first period (2019-2020) are 5 (29.41% of the total Master's degree students attending the program in both periods), of whom 1 of them (20%) in the band 1, 3 of them (60%) in Band 2; 1 of them (20%) in Band 3; there are no students who are in Band 4.

In the second period (2020-2021), 11 students have taken more exams (64.71% of the total Master's students attending the program in both periods), of whom 4 of them (36.36%) in the band 1, 2 of them (18.18%) in Band 2, 2 of them (18.18%) in Band 3 and 3 of them (27.28%) in Band 4 (figure 10). One student (5.88% of the total Master's students attending the program in both periods) took the same number of exams in both periods.

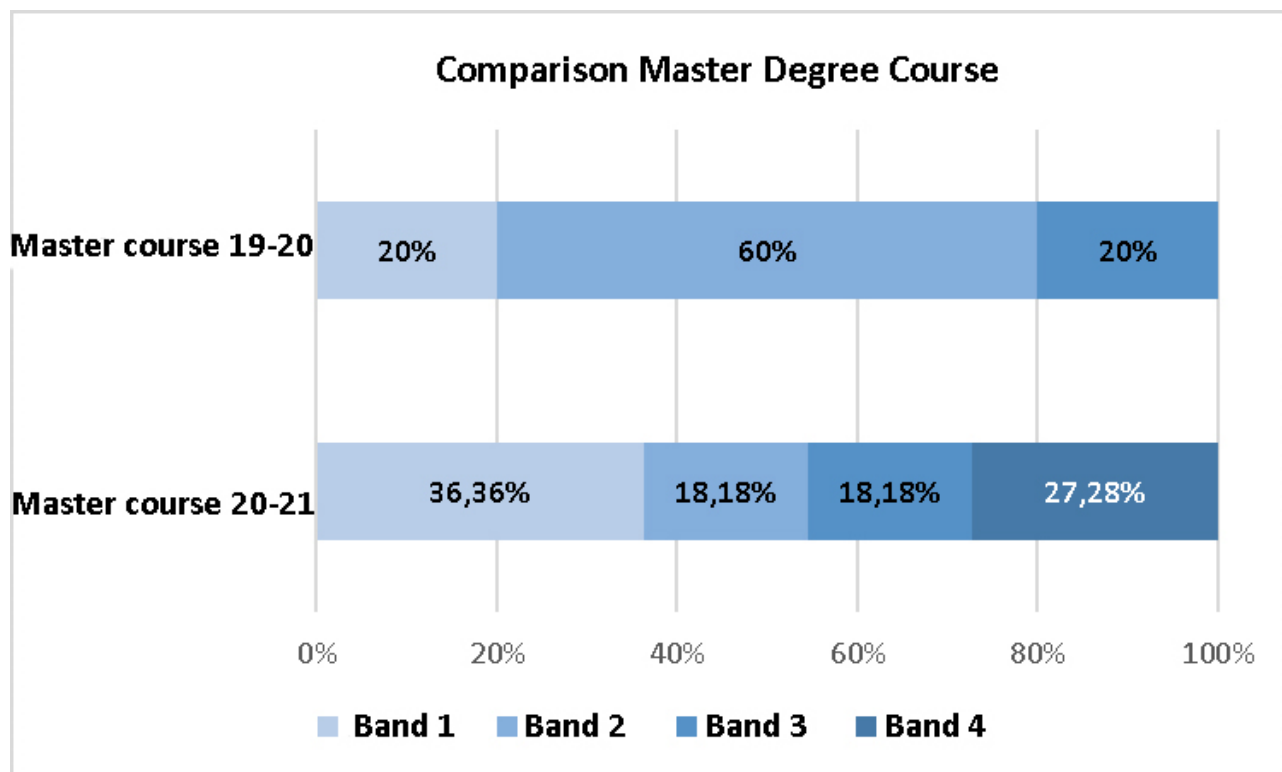


Figure 10 Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: Master's degree students in Safety Engineering (LM-26).

There are 6 Bachelor's degree students who participated in the program only between March 2019 and March 2020, while Master's degree students are 4.

The interruption is due to the fact that they obtained the degree in the first reference period.

For the courses of study in Education and Training Sciences L-19 and Pedagogical Sciences LM-85, the participants in the inclusion program in the period between March 2019 and March 2020 are 133.

As shown in figure 11, 85 students (63.91%) are enrolled in the Bachelor's Degree course in Education and Training Sciences (L-19) and 48 (36.09%) are students enrolled in the Master's Degree course in Pedagogical Sciences (LM-85).

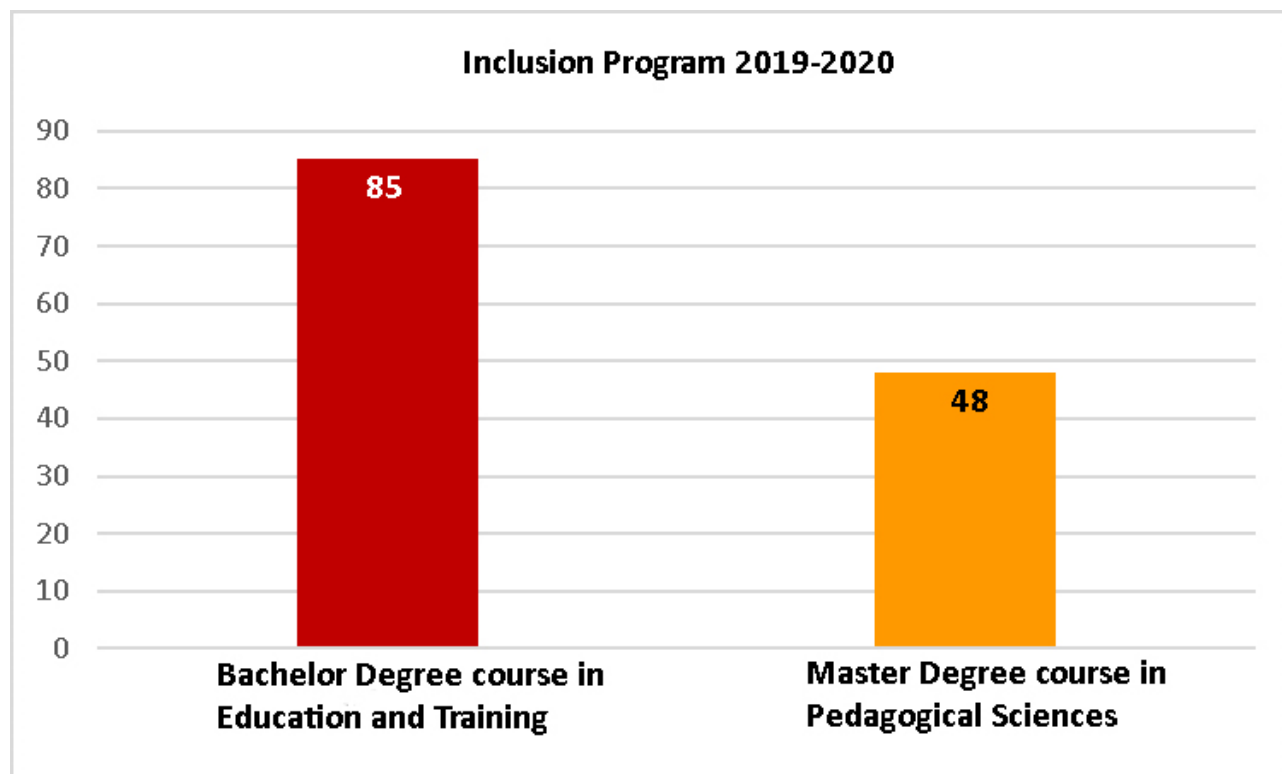


Figure 11: Students participating in the March 2019-March 2020 inclusion program.

In the period between March 2020 and March 2021, there are 181 participants in the inclusion program (Figure 12), of which 108 (59.67%) are enrolled in the Bachelor's Degree in Education and Training (L-19) and 73 (40.33%) are enrolled in the Master's Degree in Pedagogical Sciences (LM-85).

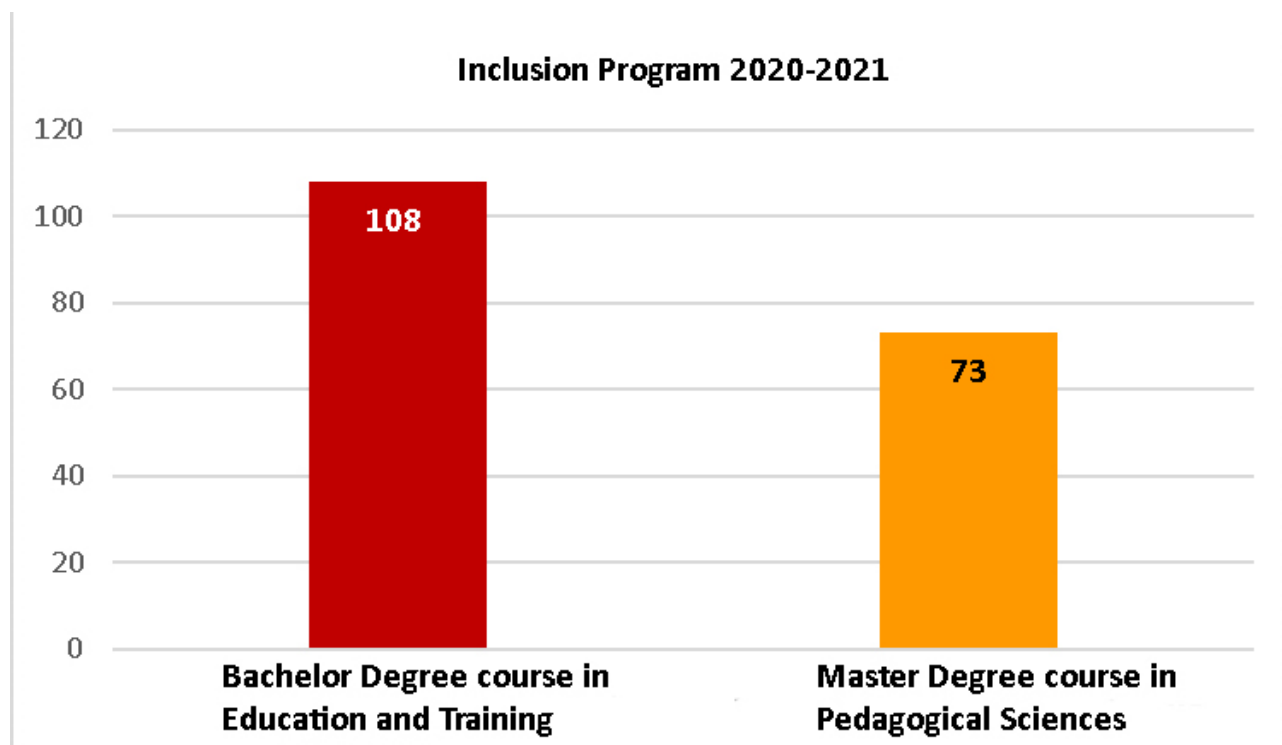


Figure 12: Students participating in the March 2020-March 2021 inclusion program.

The Bachelor's Degree students who participated in the program both in the first and second time periods considered are 70, while the Master's Degree students are 32.

To verify the difference in the number of exams taken between the two time periods considered, 4 bands were formed as follows:

- Range 1 = from 1 to 3 additional exams taken;
- Band 2 = from 4 to 6 additional exams taken;
- Band 3 = from 7 to 9 additional exams taken;
- Band 4 = 10 to 13 additional exams taken.

Among the Bachelor's degree students, 3 of them (4.29% of the total Bachelor's students attending the program in both periods) took the same number of exams in both time periods considered.

35 students (50% of the total Bachelor's students attending the program in both periods) have taken more exams during the period between March 2019 and March 2020, of whom 11 (31.43%) are positioned in Band 1; 17 (48.57%) of them in Band 2; 2 of them in Band 3 (5.71%) and 5 of them (14.29%) in Band 4.

32 students (45.71% of the total Bachelor's students attending the program in both periods), on the other hand, took more exams between March 2020 and March 2021: 12 of them (37.50%) are positioned in Band 1, 10 of them (31.25%) in Band 2, 7 of them (21.88%) in Band 3 and 3 of them (9.37%) in Band 4 (figure 13).

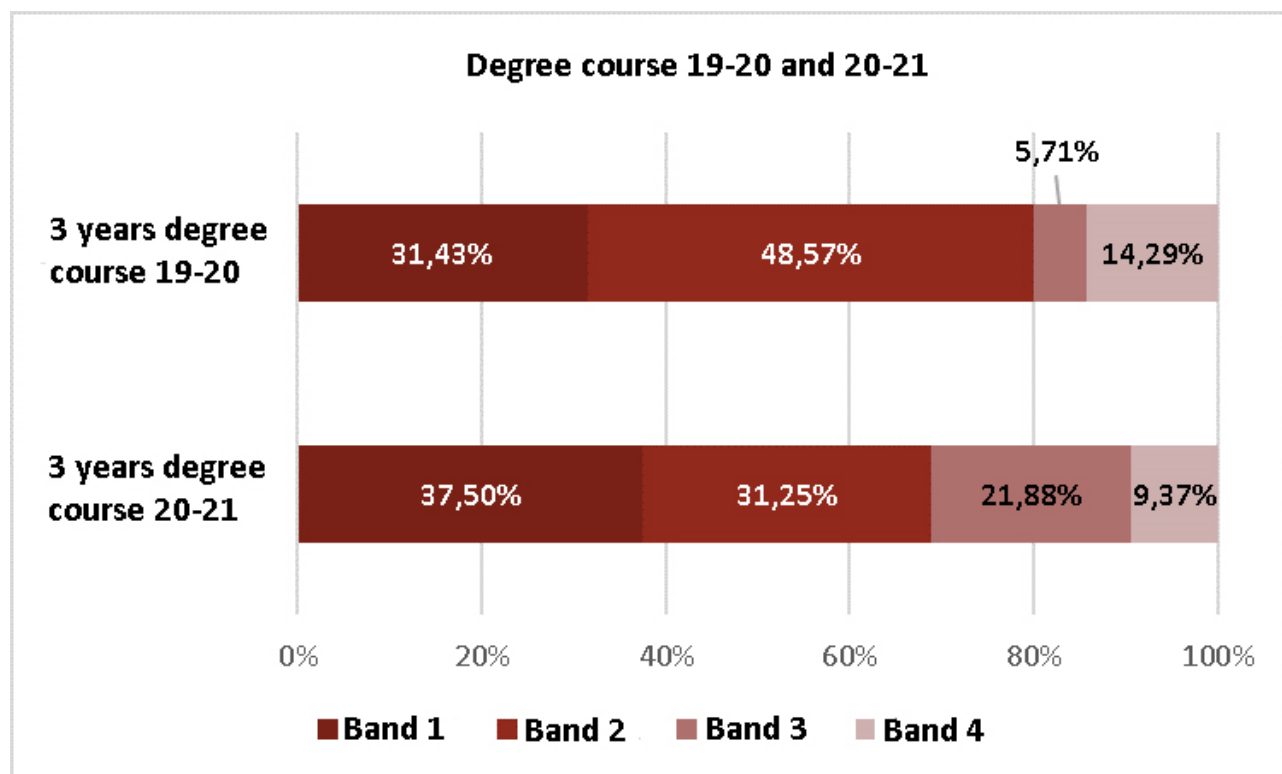




Figure 13: Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: Bachelor of Science students in Education and Training (L-19).

The Master's degree students who have taken more exams in the first period (2019-2020) are 22 (68.75% of the total Master's degree students attending the program in both periods), of whom 4 of them (18.18%) in Band 1, 10 of them (45.45%) in Band 2; 3 of them (13.64%) in Band 3 and 5 of them (22.73%) in Band 4.

In the second period (2020-2021), 10 students have taken more exams (31.25% of the total Master's students attending the program in both periods), of whom 4 of them (40 %) in Band 1, 4 of them (40%) in Band 2 and 2 of them (20%) in Band 3 (figure 14). There are no students who are positioned in Group 4.

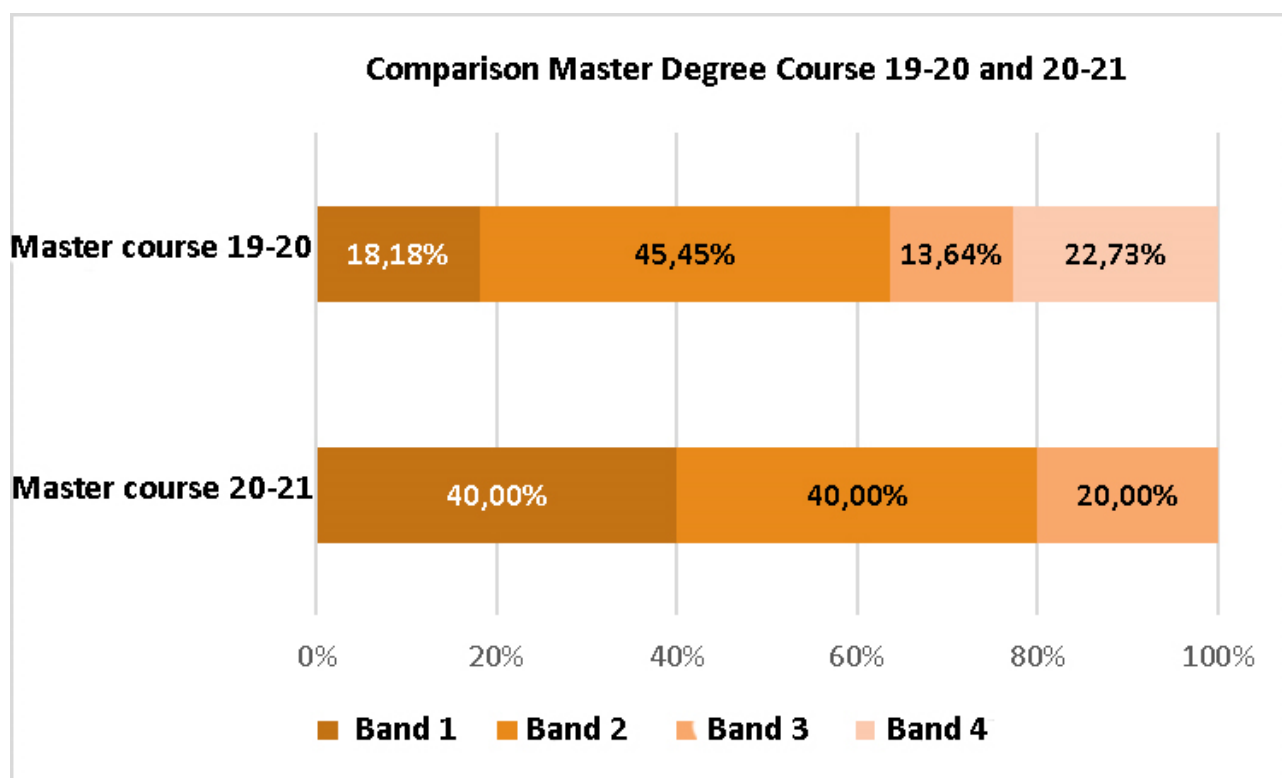


Figure 14: Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: Master's degree students in Pedagogical Sciences (LM-85).

There are 15 Bachelor's degree students who participated in the program only between March 2019 and March 2020, while Master's degree students are 16.

The interruption is due to the fact that they obtained the degree in the first reference period.

For the course of study in Tourism Sciences L-15 (Bachelor's Degree), there are 11 participants in the inclusion program in the period between March 2019 and March 2020.

In the period between March 2020 and March 2021, there are 16 participants in the inclusion program (Figure 15).

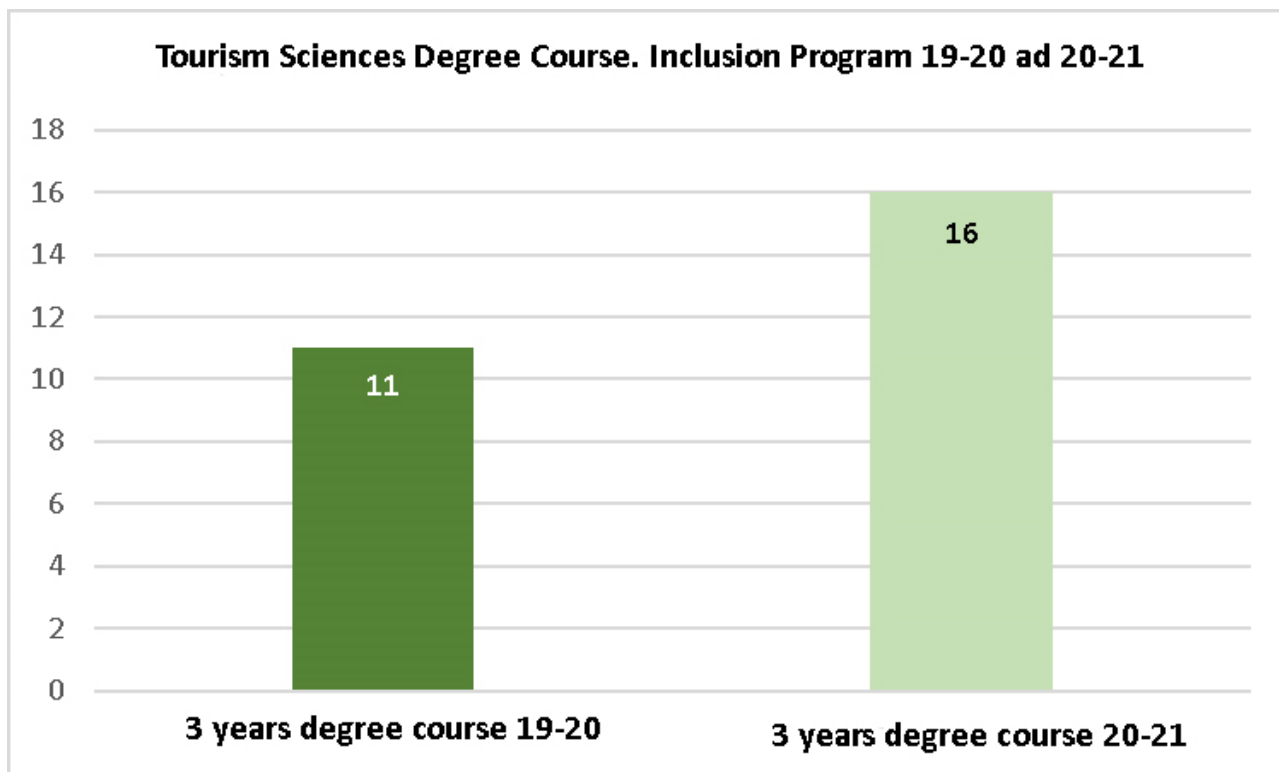


Figure 15: Students participating in the inclusion program in the two time periods considered.

The students who participated in the program both in the first and in the second time periods considered are 10.

To verify the difference in the number of exams taken between the two time periods considered, 4 bands were formed as follows:

- Range 1 = from 1 to 3 additional exams taken;
- Band 2 = from 4 to 6 additional exams taken;
- Band 3 = from 7 to 9 additional exams taken.

The Bachelor's degree students who have taken more exams in the first period (2019-2020) are 4 (40% of the total Bachelor's students attending the program in both periods), of whom 2 of them (50%) in Band 1, 1 of them (25%) in Band 2 and 1 of them (25%) in Band 3.

In the second period (2020-2021), the students who have taken the more exams are 5 (50% of the total Bachelor's students attending the program in both periods), of whom 2 of them (40%) in Band 1 and 3 of them (60%) in Band 2; no student is in Band 3. A student (10% of the total Bachelor's students attending the program in both periods) took the same number of exams in both periods.

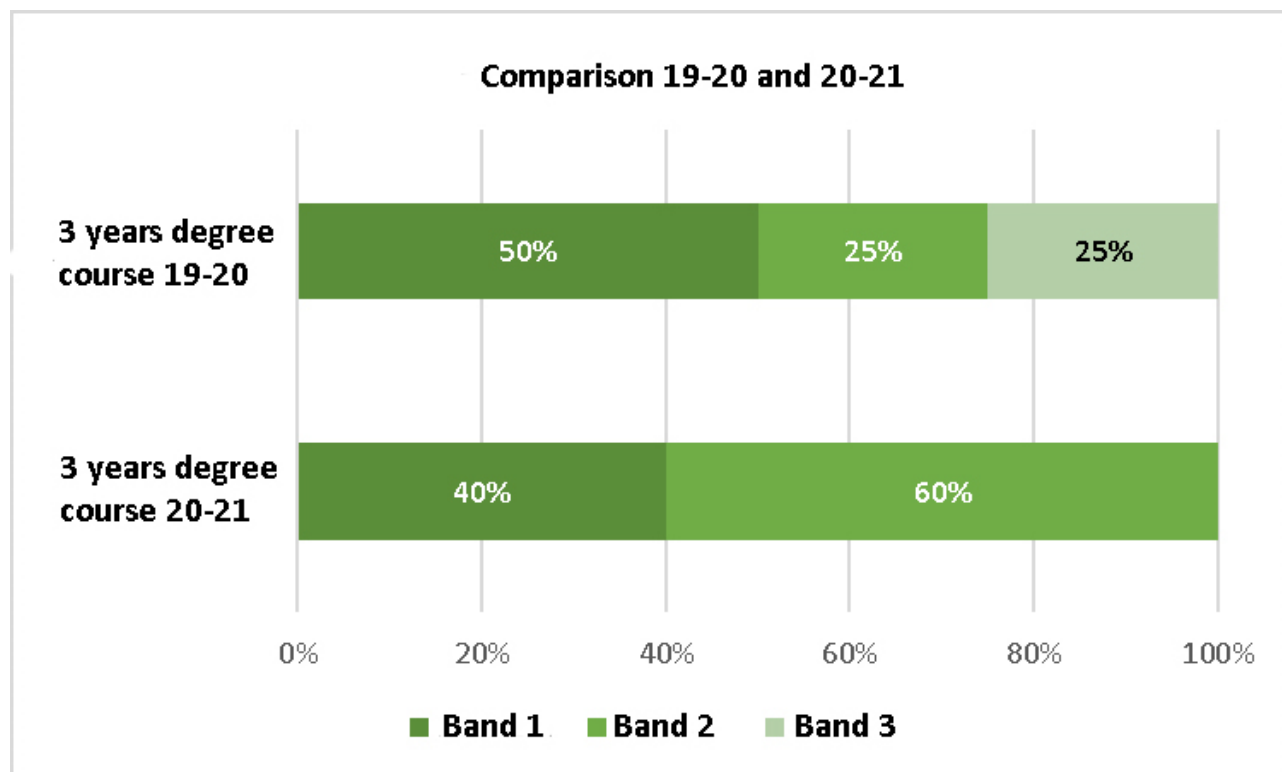


Figure 16: Comparison of participants in the inclusion program between the two time periods according to differences in the number of exams taken: 3 years course students in Tourism Sciences L-15.

There is just one student who participated only between March 2019 and March 2020, because in the first reference period he completed the study path.

For the three-year degree courses in Sports Science (L-22) and the master's degree in Sports and Motor Activities Management (LM-47), the participants in the inclusion program, enrolled in the two degree courses investigated, in the period between March 2019 and March 2020 are 54: of these 38 students (70.37%) are enrolled in the Bachelor's Degree in Motor Sciences (L-22) and 16 (29.63%) are students enrolled in the Master's Degree in Management sport and motor activities (LM-47).

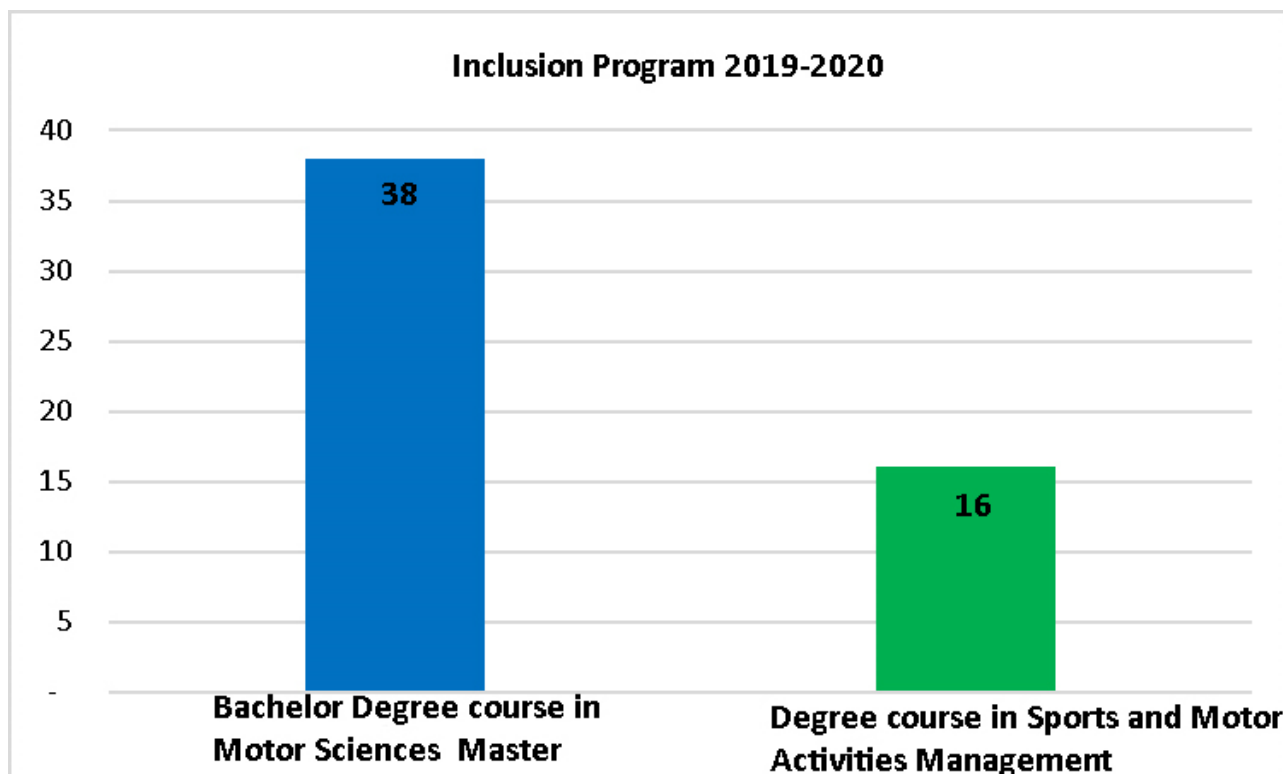


Figure 17: Students participating in the March 2019-March 2020 inclusion program.

In the period between March 2020 and March 2021, there are 81 participants in the inclusion program, of which 55 (67.90%) are enrolled in the Bachelor's Degree in Motor Sciences (L-22) and 26 (32.10%) are enrolled in the Master's Degree course in Sports and Motor Activities Management (LM-47).

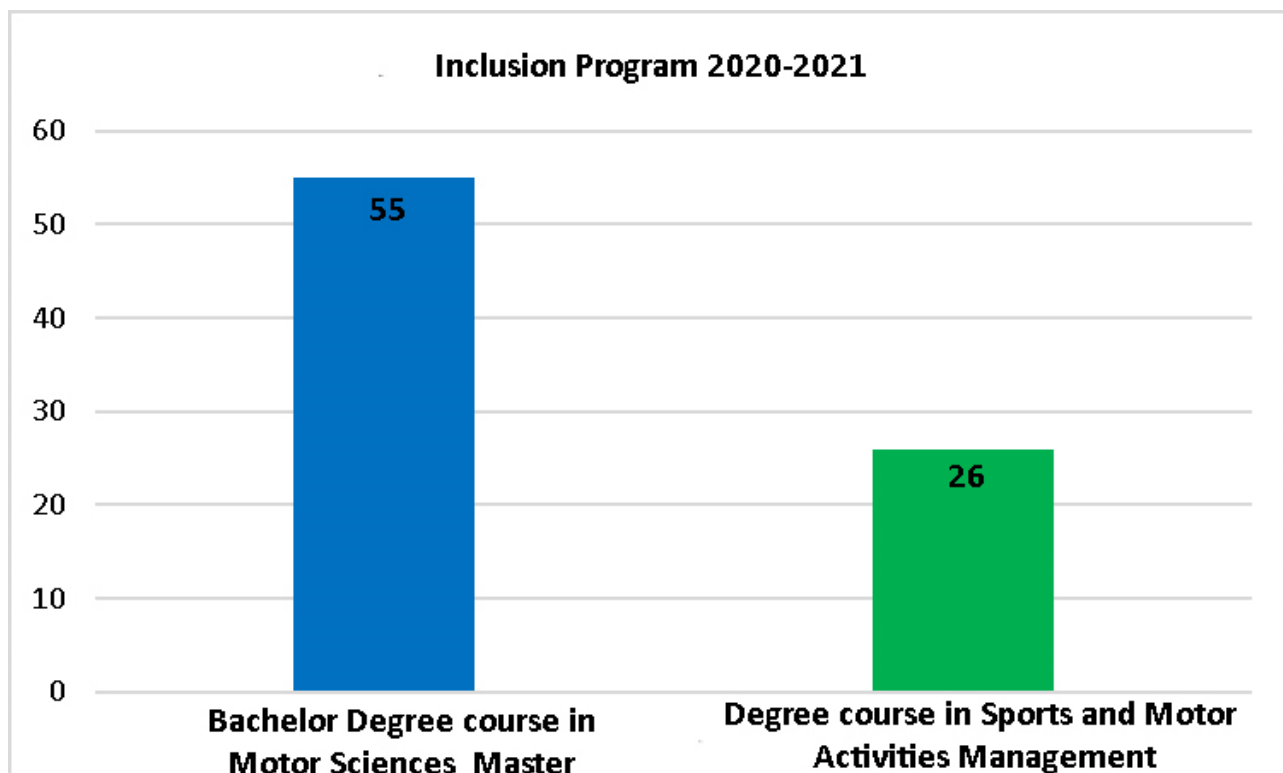


Figure 18: Students participating in the March 2020-March 2021 inclusion program.

The Bachelor's degree students who participated in the program both in the first and in the second time period considered are 31, while the Master's degree students are 12.

To verify the difference in the number of exams taken between the two time periods considered, 4 bands were formed as follows:

- Range 1: from 1 to 3 additional exams taken;
- Band 2 = from 4 to 6 additional exams taken;
- Band 3 = from 7 to 9 additional exams taken;
- Band 4 = 10 to 13 additional exams taken.

Among the Bachelor's degree students, 8 (25.80% of the total Bachelor's students attending the program in both periods) of them took more exams during the period from March 2019 to March 2020, of which 4 (50% ) are positioned in Band 1 and the other 4 (50%) in Band 3.

22 students (74.20% of the total), on the other hand, took more exams between March 2020 and March 2021: 7 of them (31.82%) are positioned in Band 1, 8 of them (36.36%) in Band 2, 5 of them (22.72%) in Band 3 and 2 of them (9.10%) in Band 4. In only one case the same number of exams was taken both in the first and in the second period (figure 3).

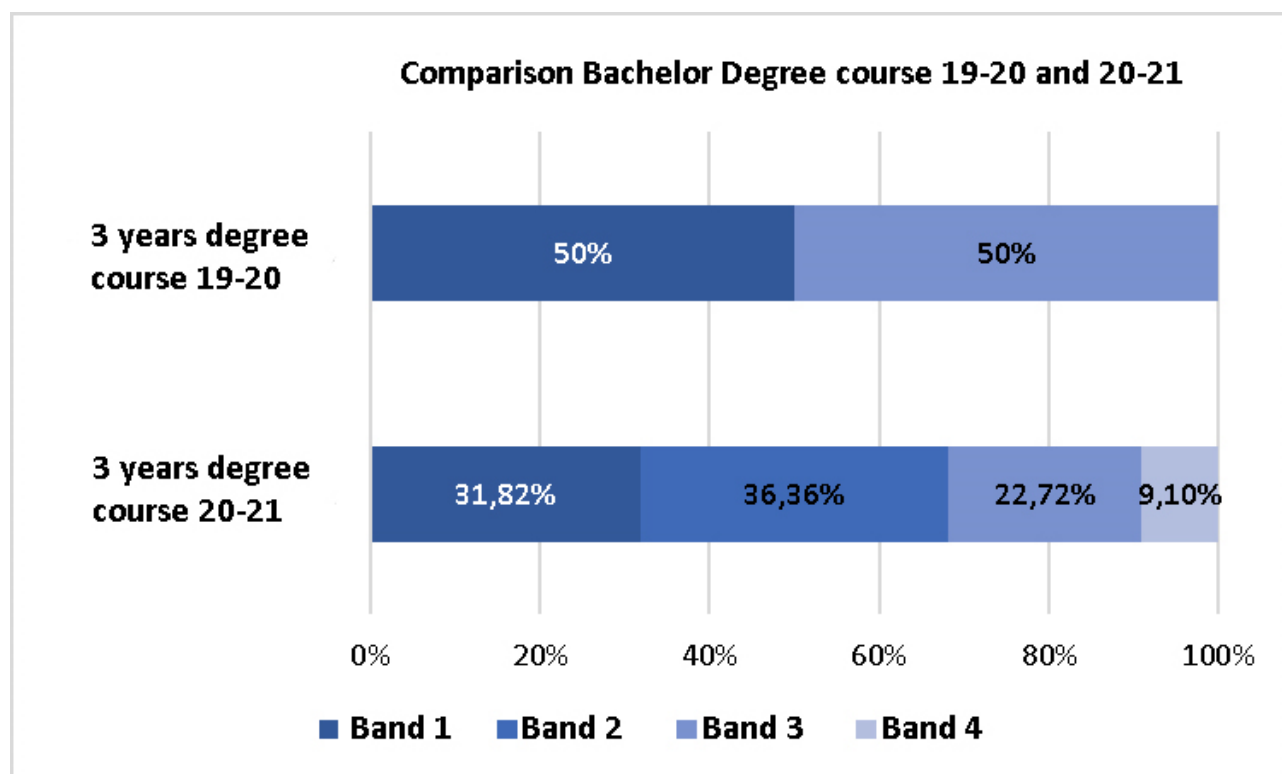


Figure 19: Comparison of participants in the inclusion program between the two time periods: Bachelor of Motor Sciences students.

The Master's degree students who have taken more exams in the first period (2019-2020) are 5 (41.70% of the total Master's degree students attending the program in both periods), of whom 2 of them (40%) in the Band 1, 1 of them (20%) in Band 2 and 2 of them (40%) in Band 3,

while in the second period there are 7 students (58.30% of the total), of whom 1 of them (14.29%) in Band 1, 4 of them (57.14%) in Band 2 and 2 of them (28.57%) in Band 3 (figure 4). There are no students who are positioned in Band 4 for either of the two periods considered.

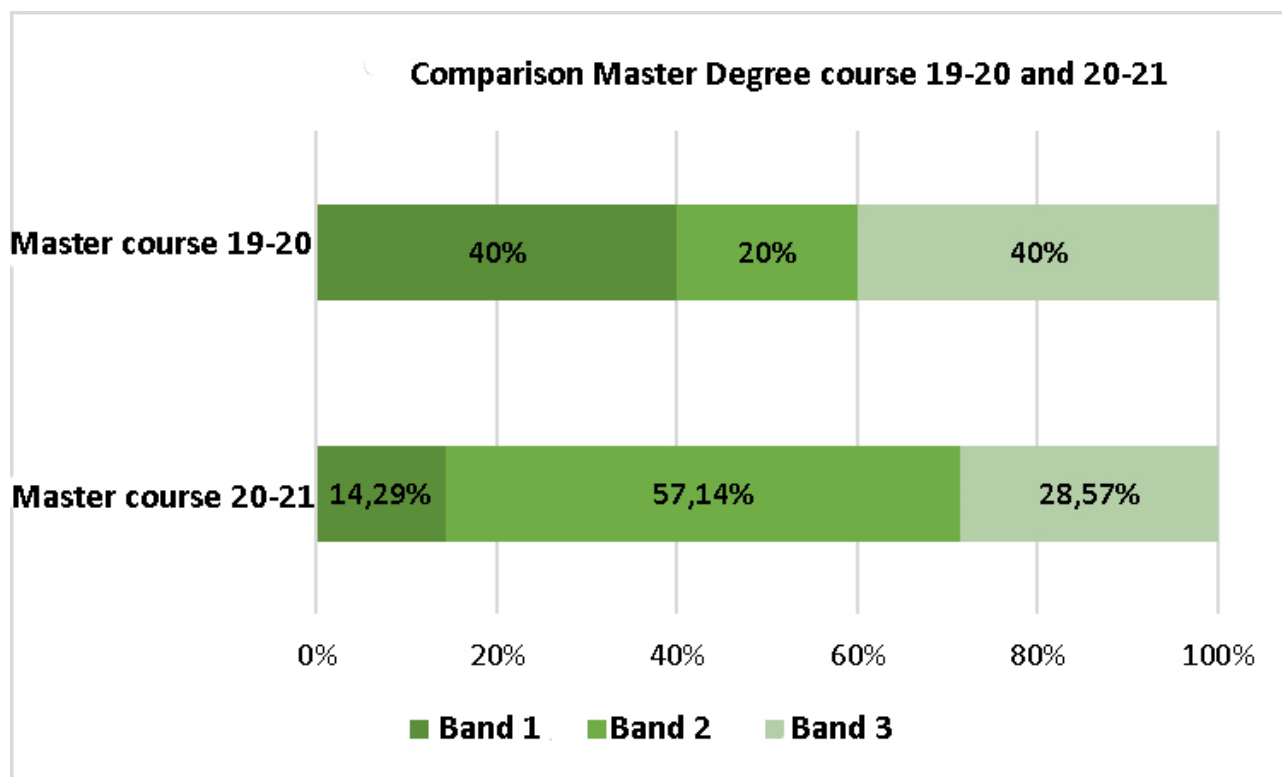


Figure 20: Comparison of participants in the inclusion program between the two time periods: Master's degree students in Management of sport and physical activities.

Among the students enrolled in the three-year degree course in Motor Science, 7 students participating in the program between March 2019 and March 2020 did not continue for the following period, among these, 4 got graduated in 2019 and did not continue with the course of master's degree, 2 enrolled in the master's degree course and kept using the services offered by the office, while only one student, despite having enrolled in the master's degree, chose not to join the inclusion and participation program.

All students of the master's degree course who in the first reference period used inclusion and participation program services also benefited from them in the second reference period, with the exception of 4 who graduated in 2019.

The studied data allows us to note that during the first pandemic period, from March 2020 to March 2021, there was a significant increase in students with disabilities who made use of the services offered by the inclusion program, and at the same time, there was an increase in the average number of exams taken by each student.

This data, without any implications to the teaching methodologies proposed that did not suffer any variations between the two study periods, considering that the study in telematic mode was found to be perfectly compatible with the restrictions imposed in the pandemic period, can find its motivation in the online exam methods, more compatible with some types of physical

disabilities that inhibit movement to the exam sites, and suited in the best possible way also to types of cognitive disabilities.

It is not granted to consider the achievement of predetermined and measurable learning outcomes as an index of quality, the priority is still the pursuit of equality of opportunities and equity in the way in which resources are determined and used for the benefit of not the individual case but of a generative system capable of responding to the ever-changing needs that one has to face.

## Conclusions

The state of emergency in which we have suddenly fallen has brought out the criticalities of the inclusive capacities of the Italian training system.

It has been evident since a while an excessive bond to the experience which is not very used to revising the schemes and planning. This approach, not truly right for a field where, working with many and various subjects, experience counts only in the way it pushes towards a flexible planning, not towards a dry re-proposal of programs and contents, has revealed its limits in moment in which the teacher had to transfer the work from the physical environment to the virtual learning environment.

As a confirmation of this point of view, the analyzed data showed the stability of the strategies used by an office that has made the personalization of the courses its *modus operandi*, a *modus* that has positively responded to the new and renewed training needs expressed by subjects who had already joined the program at unsuspecting times, whose results encourage us to believe that the path traced is the right one.

therefore it is necessary to start to refine tools and techniques perfectly compatible with extremely adaptive online learning environments, starting from a socio-technological approach, which is able to analyze the system emerging from the interactions between social and organizational structures, people and tools.

## References

- Assunção Flores, M., & Gago, M. (2020). Teacher education in times of COVID-19 pandemic in Portugal: national, institutional and pedagogical responses. *Journal of Education for Teaching*, 1-10
- Bayrakdar, S., & Guveli, A. (2020). Inequalities in home learning and schools' provision of distance teaching during school closure of COVID-19 lockdown in the UK. ISER Working Paper Series 2020-09. Disponibile presso: <https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2020-09>
- Bao W. (2020), COVID-19 and online teaching in higher education: A case study of Peking University, «Human Behavior and Emerging Technologies», vol. 2, n. 2, pp.113-115.

Booth T., Ainscow M., (2011), *Index for inclusion developing learning and participation in schools*. Bristol U.K.: Centre for studies on inclusive education (CSIE).

Brown S., e Mankoff J. (2020), *How Does COVID-19 impact Students with Disabilities/Health Concerns?* <https://arxiv.org/abs/2005.05438>

CAST, in [https://www.cast.org/impact/universal-design-for-learning-udl#:~:text=Universal%20Design%20for%20Learning%20\(UDL,insights%20into%20how%20humans%20learn.](https://www.cast.org/impact/universal-design-for-learning-udl#:~:text=Universal%20Design%20for%20Learning%20(UDL,insights%20into%20how%20humans%20learn.)

Chirikov I., Soria K. M., Horgos B. e Jones-White D. (2020), *Undergraduate and graduate students' mental health during the COVID-19 pandemic*. SERU Consortium, University of California – Berkeley and University of Minnesota, <https://cshe.berkeley.edu/seru-covid-survey-reports>

COTTINI, L. (2020). Prefazione. In A. Calvani (a cura di). *Tecnologie per l'inclusione. Quando e come avvalersene*. Roma: Carocci.

Giovannella C., Persico D. e Passarelli M. (2020), *Measuring the effect of the Covid-19 pandemic on the Italian Learning Ecosystems at the steady state: a school teachers' perspective*, «Research Gate», preprint.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). *The difference between emergency remote teaching and online learning*. *Educause Review*, 27

ISTAT, *L'inclusione scolastica degli alunni con disabilità - A.S. 2019-2020*, in <https://www.istat.it/it/files/2020/12/Report-alunni-con-disabilit%C3%A0.pdf>

ISTAT, *L'inclusione scolastica degli alunni con disabilità - A.S. 2020-2021*, in <https://www.istat.it/it/files/2022/01/REPORT-ALUNNI-CON-DISABILITA.pdf>

Lucisano, P. (2020). *Fare ricerca con gli insegnanti. I primi risultati dell'indagine nazionale SIRD "Per un confronto sulle modalità di didattica a distanza adottate nelle scuole italiane nel periodo di emergenza COVID-19"*. *Lifelong Lifewide Learning*, 17(36), 3-25

Novo, M., Gancedo, Y. e Vázquez, M. J. (2020), *Relationship between class participation and well-being in university students and the effect of Covid-19*, [shorturl.at/cmDP6](http://shorturl.at/cmDP6)

Rivoltella, P.C., Rossi, P.G. (a cura di) (2019), *Tecnologie per l'educazione*, Pearson, Milano

Santi, M. (2017), *Inclusione e oltre: verso Università fiorenti tra aspirazioni e impegni*, in Santi M., DI Masi D., *InDeEP University Un progetto di ricerca partecipata per una Università inclusiva*, PADOVA UNIVERSITY PRESS

Terzi, L. (2005), *Beyond the dilemma of difference: The capability approach to disability and special educational needs*, *Journal of Philosophy of Education*, 39(3), pp. 443-459

Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020). *Mitigate the effects of home confinement on children during the COVID-19 outbreak*. *Lancet (London, England)*, 395(10228), 945–947



Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending Classes without Stopping Learning: China's Education Emergency Management Policy in the COVID-10 Outbreak. *Journal of Risk and Financial Management*, 13 (3), 1–6