University inclusion at the time of COVID-19: a pilot study

Aldo Caldarelli^{1,} Noemi Del Bianco², Ilaria D'Angelo², Catia Giaconi⁴

1 University of Niccolò Cusano, Rome, Italy

2 University of Macerata 1, P.le Bertelli, Macerata, Italy

Abstract

In line with the pedagogical movement called Student Voice (Cook-Sather, 2014), a research group in the Pedagogy and Special Didactics field, from the University of Macerata, has carried out a pilot study with University students with disabilities and with Specific Learning Disorders (Giaconi, Capellini, 2015; Del Bianco, 2019). Specifically, the study will deepen how the Voices of all students can be recorded even during an emergency period and how students' feedback can be the first step to start new cooperation in the implementation of educational paths.

Keywords

Student Voice, University students with Specific Learning Disorders, Inclusion

1. Introduction

Despite equal access opportunities and legislative protections aimed at guaranteeing the right to higher education for all, there are still numerous social and physical barriers [1, 2, 3] that persist in the academic lives of students with disabilities and with Specific Learning Disorders (SpLDs).

Starting from these considerations, several researches [4, 5, 6, 7] have been conducted to identify the factors that facilitate or hinder learning and belonging in the academic context, among these we note the area of studies within which the Student Voice movement is found [2, 8, 9, 10].

Within this frame of reference, which we will look at in detail in the next section, it emerges how through co-researching, in which university students become "change agents", traditional academic culture can open up to inclusive trajectories capable of responding to students' different functioning profiles [11]. However, the emergence of COVID-19 forced academic institutions to come up with emergency responses for the quick switch from in-person to distance learning without being able to put into place sharing mechanisms with their students.

Indeed, the COVID-19 pandemic necessitated a rapid shift to remote instruction. This may have created particular challenges for students with disabilities or SpLDs [12].

Even though e-learning allows for seamless services, critical issues may arise about several factors, such as resources (bandwidth, technological devices, etc.) or technological competence. Access to online learning influences acquiring knowledge and skills required to pursue an academic career. Therefore, monitoring of involvement and attendance and passing examinations makes it possible for the effectiveness of the services and distance learning opportunities offered during the pandemic to be verified.

In this direction, the University of Macerata prepared, during the pandemic, i.e. at the end of the first half of 2020, a study aimed at investigating the active or non-active participation of students with disabilities or SpLDs. In other words, it investigated whether or not the online learning environment provided by the university was accessible and which teaching strategies were most conducive to learning. The research was an opportunity to give a voice to university students with disabilities and SpLDs, allowing them to take a snapshot of how they perceived and experienced the facilities provided

ORCID: 0000-0002-1504-0588 (A. 1);



© 2022 Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0)

CEUR Workshop Proceedings (CEUR-WS.org)

Proceedings of the International Day of Persons with Disabilities. Inclusion, Autonomy, Technology, December 2–3, 2022, Rome, Italy EMAIL: aldo.caldarelli@unicusano.it

by the university, to revive the discussion on the critical issues of adapting distance learning to their needs.

2. Framework of reference

Founded in the 1990s in the international context, the Student Voice (SV) movement aims to enhance the active role of students in understanding and critically analysing the educational contexts they belong to [13, 14].

To this end, specific occasions are conceived and designed in which students' "voices" are heard, recognised and legitimised as transformative elements of the learning context [3].

In this sense, students are regarded as expert partners with expertise [13] who, for these reasons, are involved in pedagogical decisions about learning content and teaching methods [15].

In this perspective, the literature has resulted in the use of different qualitative methods that have given space to the voice of students with disabilities or SpLDs [16], to achieve forms of shared governance of university policies and services dedicated to them [8]. This has been decisive regarding agency increase and the personal and social empowerment of the students involved [3].

As mentioned above, the COVID-19 pandemic has presented unprecedented challenges for education systems worldwide. The shift to remote learning has rapidly changed the higher education landscape and has created an end to sharing governance with one's students.

Recognising the importance of involving students in the process of understanding and improving their academic experience during the pandemic, the Special Pedagogy research team at the University of Macerata decided to investigate the implications of online teaching for students with disabilities and SpLDs, to arrive at forms of shared planning in the following months, through discussion of the data collected.

3. Pilot study

As highlighted in previous research [5, 17, 18], since 2017, the University of Macerata, in line with the CNUDD guidelines, has implemented the Inclusion 3.0 project [17] to support the regular Disability Services already active at the University of Macerata. One of the aims of the Inclusion 3.0 Project in the pre-lockdown period was to give voice to students with disabilities by promoting self-advocacy and self-awareness paths [18, 19, 20]. During the pandemic, since physical places were no longer accessible, strategies and technological solutions were adopted to allow individual students to access distance education by applying flexible and tailored provisions as possible to meet diverse study needs. With the following pilot study, we want to investigate the perceptions of university students with disabilities and SpLDs regarding the efficiency and effectiveness of these supports to proceed with the structuring of co-design actions that can guide subsequent months of distance learning. The study is part of the survey of the activities of the Disability and SpLDs Service (SDA), which are carried out annually and are aimed at detecting any criticalities that may have emerged during the period in question to develop strategies and actions to rethink and redesign the services provided. Given the lockdown, a survey questionnaire for the 2019/2020 academic year was set with specific questions concerning the perceptions of students with disabilities and SpLDs with regard to teaching and services provided online during the pandemic.

3.1. Method: Instruments and procedures

For the survey, we used a quantitative methodology. The research team created an accessible questionnaire. Specifically, the language and level of accessibility for reading was adapted [17, 21]. Therefore, accessibility and usability guidelines were applied, and speech synthesis was provided for reading the questionnaire. Before the administration of the questionnaire, a pre-test was also carried out with students with disabilities and SpLDs, to assess the levels of accessibility and usability. The

questionnaire has 18 closed multiple-choice questions divided into four sections: Personal Data; Distance Learning (DL); Relationships (tutoring); and Self-evaluation. The first opening section collects the students' personal data (gender, age, certification of SpLDs/disability, department of affiliation, degree course).

The second section concerns the DL, related to the frequency of online classes; the technological devices used; the conconnectedvices, the type of connection, the usefulness of the teaching strategies, the personalisation of the examination and the evaluation of the strengths and weaknesses of the work conducted online.

The third section focuses on the tutoring service, particularly the relationship between the student with disabilities and the tutor. The last section explores perceived self-efficacy and organisation levels during university courses.

The results presented here were processed using SPSS software based on one frequency distribution of the individual variables.

For the sake of economy, we will now present the data relating to the Distance Learning section (DL), which will be the subject of discussion due to their relevance to the topic we are dealing with.

3.2. Presentation of results

The entire student population with disabilities (about 200) was involved in the survey. The questionnaire was administered through email dissemination by the SDA office to all students, followed by the latter: 116 university students with disabilities and SpLDs took part in the survey, of whom 78 were female (67.2%) and 38 were male (32.8%).

Concerning the data from the DL section, the questionnaire was directed to understand the attendance of students with disabilities or SpLDs in online classes during the first semester. The data show that 82.8% participated in distance learning lessons, while 17.2% stated they did not attend.

With reference to the technological devices used, the students who followed the lessons online did so mainly with a PC (85%) followed by their colleagues who used a smartphone (8%) or a tablet (7%)

Looking at the bandwidth used by students, if we exclude "I do not know exactly the type of connection" (34.5%), it is ADSL7-20Mb (24.15) and fibre up to 200Mb (18.1%).

Subsequently, the questionnaire aimed to detect the usefulness of the different ways of conducting online lessons (synchronous or asynchronous). The 38.8% of the students found the audio and video materials provided by the teachers "very useful" to support individual study, 37.9% the synchronous lecture and 32.8% the asynchronous study materials.

Analyzing the strategies used by the teachers (group work, simulation, case studies, discussion forums, etc.), students found "rather useful", the use of tools for interaction in the online environment (34.9%), case studies, exercises and simulations for exam preparation (31.9%), group work with other students (29.3%), work with the online tutor (28.4%). The personalisation of the examination was considered "rather useful" by 28.4% and "very useful" by 28.4%. Finally, the material provided by the note-taker was stated to be "not at all useful" by 32.8% of the participants.

In conclusion to the DL section of the questionnaire, questions were asked about the strengths and weaknesses of the online work. The participants indicated as their first choice the work carried out with the specialised tutor (31%), a professional figure belonging to the Disability and SpLDs Service of the University; as the second option, the support materials provided by the teachers (37.6%) and finally, as the third option the personalisation of the exams (48.2%).

Among the weaknesses, significant percentages emerge in relation to studying with colleagues (30.2%), the use of technology (33.3%) and the personalisation of examinations (55.6%).

3.3. Data Discussion

In line with the literature [21, 22] the data collection points out that the transition from in-person learning to online learning significantly impacts students' assessment and evaluation.

The data collected in our study verifies that university students with disabilities and SpLDs could use appropriate devices (PCs or tablets) and have an adequate connection bandwidth. In this direction,

research has shown [21, 23] that several factors, such as the technological infrastructure, the experience and familiarity with technological devices of teachers and students, the availability of appropriate spaces and the extent of home privacy mediate participation in online environments.

Regarding class attendance, 82.8% of the respondents indicated that they had taken their classes online. This is significant because, as the literature points out [24], university course attendance, and specifically students' engagement and social relationships between peers and lecturers, are essential for academic success.

With reference to the perception of the usefulness of the methods of lesson delivery, teaching strategies and services provided online, the data obtained indicate what has most favoured the participation and learning of university students with disabilities and SpLDs who have followed online lessons.

Students (38.8%) indicate that most use the materials provided by teachers for study support, specifically the audio and video materials produced and available in the repositories of the online environments. At the same time, this data makes it possible to highlight the attention that even university teachers must pay to create accessible multimedia materials to promote inclusive university teaching [25]. Student engagement, belonging, and overall well-being are fostered, thus achieving student growth. Students can perceive the tools for interaction in the online environment as opportunities to participate in social activities normally held on campus and ways of bonding with other students socially to deepen learning through informal discussion.

A significant percentage is recorded among the students who state that the personalisation of the exam is completely useful (20.7%) and very useful (28.4%), as highlighted by the CNUDD guidelines (2014) and by our recent studies [4, 18] is an important aspect to guarantee the right to study of students with disabilities and SpLDs.

Related to the weaknesses, students include studying with colleagues as the first option for frequency. Students with disabilities or SpLDs, while recognising the usefulness of the various tools for interaction in the online environment, state that learning with their fellow students is a critical element of their work in DL. This aspect is in line with the research carried out so far on the criticalities encountered by students when using distance learning methods (Arenghi et al., 2020) and with the need to activate integrated systems of technologies for the implementation of inclusive university teaching (Giaconi et al., 2020b)

4. Conclusion

The presented pilot study highlights several reflections within the current debate on implementing inclusive university teaching in university contexts. With the health emergency, the issue of inclusive university teaching and, more generally, the issues of the right to study and social equity have become increasingly urgent and central to university policies and scientific debates.

As this study shows, students' voices can be useful in questioning tools, strategies and services that are thought to be functional for inclusion but which, from the point of view of university students with disabilities and SpLDs are perceived as not very useful or functional. Therefore, it is essential to include students with disabilities and SpLDs in the design practices of innovative, inclusive didactics, not only as users but as protagonists of a process of co-design or initial, in itinere or final feedback to set into motion actions to improve the university contexts from an inclusive point of view.

In the latter sense, we argue that digital technologies can support co-design actions that can "become a tool for diminishing status differences between lecturers and students and equalizing status differences among students themselves" [11, p. 319]. Technological devices allow great potential for Student Voice to gain a prominent place in the University context [26]. In this regard, the literature [11, 26, 27,28,29] has questioned how technological devices can mediate the concept of Student Voice in the academic context. Among the most significant studies, we mention the research by Blau and Shamir-Inbal [11] who highlight how students' active participation and pedagogical collaboration with teachers is increased in the digital environment. For these reasons, one of the future steps of the pilot study presented in this paper will be directed to deepen, through specific interviews and critical discussion, how to implement in the online environment Voices of students with disability and SpLDs.

5. References

- [1] Agarwal, N., Moya, E. M., Yasui, N. Y., & Seymour, C. (2015). Participatory Action Research with College Students with Disabilities: Photovoice for an Inclusive Campus. *Journal of Postsecondary Education and disability*, 28(2), 243-250.
- [2] Pace, S., Petrini, D., & Pavone, M. (2018). UNIversal inclusion: rights and opportunities for students with disabilities in the academic context. *UNIversal inclusion*, 1-298.
- [3] Del Bianco, N. (2019). Autodeterminazione nelle persone con disabilità intellettive. *Studi, ricerche e questioni di pedagogia speciale. Milano: FrancoAngeli.*
- [4] Paviotti, G., D'Angelo, I., Capellini, S. A., & Giaconi, C. (2021). Inclusion in university contexts and the role of internships in the education of students with disabilities: Critical issues, perspectives and good practices. *Education Sciences & Society-Open Access*, *12*(1), pp. 197-218.
- [5] D'Angelo, I., & Del, B. N. (2019). Inclusion at university: studies and practices. *Inclusion at university*, 1-211.
- [6] Caldin, R. (2017). Gli studenti universitari tra formazione e ricerca. Il contributo della didattica alle professioni educative, nei processi inclusivi. *Pedagogia oggi, 15*(2).
- [7] De Anna, L. (2016). Teaching accessibility and inclusion. Carocci editore: Roma.
- [8] Beardon, L., Martin, N., & Woolsey, I. (2009). What do students with Asperger syndrome or high-functioning autism want at college and university? (in their own words). *Good Autism Practice (GAP)*, 10(2), 35-43.
- [9] Cook-Sather, A. (2014). Student-faculty partnership in explorations of pedagogical practice: A threshold concept in academic development. *International Journal for Academic Development*, 19(3), 186-198.
- [10] Grion, V. (2017). 'Student Voice' in Italy: the State of the Art. *Teaching and Learning Together in Higher Education*, *1*(20), 3.
- [11] Blau, I., & Shamir-Inbal, T. (2018). Digital technologies for promoting "student voice" and cocreating learning experiences in an academic course. *Instructional Science*, *46*(2), 315-336.
- [12] Kim, J. Y., & Fienup, D. M. (2022). Increasing access to online learning for students with disabilities during the COVID-19 pandemic. *The Journal of Special Education*, 55(4), 213-221.
- [13] Cook-Sather, A. (2002). Authorizing students' perspectives: Toward trust, dialogue, and change in education. *Educational researcher*, *31*(4), 3-14.
- [14] Grion V., Cook-Sather A. (Eds.) (2013), Student Voice. Prospettive internazionali e pratiche emergenti in Italia, Guerrini: Milano.
- [15] Dunne, E., Zandstra, R., Brown, T., & Nurser, T. (2011). Students as change agents: New ways of engaging with learning and teaching in higher education.
- [16] Kendall, L. (2016). Higher education and disability: Exploring student experiences. *Cogent Education*, *3*(1), 1256142.
- [17] Del Bianco, N., & Giaconi, C. (2018). In azione: Prove di inclusione. In azione, 1-314.
- [18] Del Bianco, N., Giaconi, C., Gison, G., D'Angelo, I., & Capellini, S. A. (2021). Inclusion at the University through technology: A case study in Italy. *International Journal of Special Education and Information Technologies*, 7(1), 01-15.
- [19] D'Angelo, I., Giaconi, C., Del Bianco, N., & Perry, V. (2020). Students' Voice and Disability: Ethical and methodological reflections for Special Pedagogy research. *Education Sciences & Society-Open Access*, 11(1).
- [20] Giaconi, C., Del Bianco, N., D'Angelo, I., & Kraus, A. (2020). New perspectives for Inclusive University Teaching: EduPlan4Inclusion. *Education Sciences & Society-Open Access*, 11(1).
- [21] Hogg, J., & Langa, A. (Eds.). (2008). Assessing Adults with Intellectual Disabilities: A Service Provider's Guide. John Wiley & Sons.
- [22] Sahu, P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): impact on education and mental health of students and academic staff. *Cureus*, *12*(4).
- [23] Liu, X., Liu, J., & Zhong, X. (2020). Psychological state of college students during COVID-19 epidemic. *Available at SSRN 3552814*.

- [24] Docherty, A., Warkentin, P., Borgen, J., Garthe, K., Fischer, K. L., & Najjar, R. H. (2018). Enhancing student engagement: Innovative strategies for intentional learning. *Journal of Professional Nursing*, 34(6), 470-474.
- [25] Docherty, A., Warkentin, P., Borgen, J., Garthe, K., Fischer, K. L., & Najjar, R. H. (2018). Enhancing student engagement: Innovative strategies for intentional learning. *Journal of Professional Nursing*, 34(6), 470-474.
- [26] Byker, E. J., Putman, S. M., Handler, L., & Polly, D. (2017). Educational Technology and Student Voice: Examining Teacher Candidates' Perceptions. *World Journal on Educational Technology: Current Issues*, 9(3), 119-129.
- [27] Thompson, C., Gray, K., & Kim, H. (2014). How social are social media technologies (SMTs)? A linguistic analysis of university students' experiences of using SMTs for learning. *The Internet and Higher Education*, *21*, 31-40.
- [28] Frolli, A., Savarese, G., Di Carmine, F., Bosco, A., Saviano, E., Rega, A., Carotenuto, M., & Ricci, M. C. (2022). Children on the Autism Spectrum and the Use of Virtual Reality for Supporting Social Skills. *Children (Basel, Switzerland)*, 9(2), 181.
- [29] Frolli, A., Bosco, A., Lombardi, A., Di Carmine, F., Marzo, S., Rega, A., & Ricci, M. C. (2021). Asperger's and virtual reality. Proceedings http://ceur-ws. org ISSN, 1613, 0073