

REMOTE TEACHING AND LEARNING – CHALLENGES AND OPPORTUNITIES FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS

ENSINO E APRENDIZAGEM A DISTÂNCIA – DESAFIOS E OPORTUNIDADES PARA ESTUDANTES COM NECESSIDADES EDUCATIVAS ESPECIAIS

Ewa Domagala-Zyśk¹

Abstract

The pandemic makes it a rule that remote teaching has become a regular way of education nowadays. After the first period of *emergency remote teaching* (ERT), both the teachers and students entered the second stage of more regular remote teaching. Both teachers and young people improved their digital literacy skills and can experience fully the benefits of remote/blended learning. However, there are also many worries about the youths' well-being in the lockdown time. Remote learning education creates plenty of challenges, connected with inequalities in access to both the equipment and IT services, various levels of the quality of remote teaching and mental health issues. It is especially the case of students with special educational needs (SEN), like disabilities of learning challenges.

At John Paul II Catholic University of Lublin a research group was established in April 2020 (coordinated by the author of this text) to study the conditions and recommendations for remote teaching of SEN students. The presentation will be discussing the main results of the findings of this project shown in a wider context on remote education methodology. Recommendations will be formulated for fully inclusive remote education of students with special/additional educational needs.

Keywords

remote education, special educational needs, integral education, inclusive education

¹ John Paul II Catholic University of Lublin, Poland.

 ORCID 0000-0002-2227-7102

Resumo

A pandemia faz com que seja uma regra que o ensino à distância se tenha tornado uma forma regular de educação hoje em dia. Após o primeiro período de ensino remoto de emergência (ERT), tanto os professores como os estudantes entraram na segunda fase de ensino remoto mais regular. Tanto os professores como os jovens melhoraram as suas capacidades de alfabetização digital e podem experimentar plenamente os benefícios da aprendizagem à distância/misturada. No entanto, há também muitas preocupações sobre o bem-estar dos jovens no período de isolamento. O ensino à distância cria muitos desafios, relacionados com desigualdades no acesso tanto ao equipamento como aos serviços informáticos, vários níveis da qualidade do ensino à distância e questões de saúde mental. É especialmente o caso dos estudantes com necessidades educativas especiais (SEN), como as deficiências de aprendizagem. Na Universidade Católica John Paul II de Lublin foi criado um grupo de investigação em Abril de 2020 (coordenado pelo autor deste texto) para estudar as condições e recomendações para o ensino à distância de alunos com necessidades educativas especiais (NEE). A apresentação irá discutir os principais resultados dos resultados deste projecto apresentados num contexto mais amplo sobre a metodologia do ensino à distância. Serão formuladas recomendações para o ensino à distância totalmente inclusivo de estudantes com necessidades educativas especiais/adicionais.

Palavras-chave ensino à distância, necessidades educativas especiais, ensino integral, ensino inclusivo

Introduction

The SARS-CoV-2 pandemic of 2002-2021 has been connected with plenty of political, economic and social issues, but one of the most discussed was school closures due to lockdown periods in many countries. Hot debates have been raised as for the decisions when, for how long and why should the schools be closed or opened and about short- and long-term consequences of this decisions. Many agree that this situation, especially in spring and summer 2020, when in many places *emergency remote teaching* (ERT, Hodges et al. 2020) dominated, brought a wave of inequalities and challenges, especially for children and young people with disabilities or other special educational needs and these from *at risk* families.

Different goals were formulated for online education and it soon appeared that it should be not only about maintaining the students' cognitive potential, but more about taking care for their well-being and social and emotional development. It was named as “Maslow before Bloom” strategy (Doucet et al., 2020).

The aim of this paper is to discuss the challenges and opportunities of online teaching during the 2020-2021 SARS-CoV-19 pandemic for students with disabilities and special educational needs. They are the most vulnerable group, but at the same time can teach us more about real challenges and recommendations to be met if the pandemic situation is going to take longer or be repeated in different forms in the future.

1. Integral inclusive education for students with special needs

It is an inevitable mission of Catholic schools and universities to provide high quality education to every person who needs that – and in every circumstances. *Declaration on Christian Education* (1965) poses directly that a suitable training and education should be offered to *everyone* in all parts of the world. These words can be regarded as the cornerstone for inclusion in education of all those who might experience marginalization due to their personal, social or financial characteristics. John Paul II can also be perceived as a promoter of inclusion, especially of these who experience disability or any other form of suffering. In his document *Salvifici doloris* (point 29) he states:

Here we come to the enormous importance of having the right attitudes in education. The family, the school and other education institutions must, if only for humanitarian reasons, work perseveringly for the reawakening and refining of that sensitivity towards one's neighbour and his suffering of which the figure of the Good Samaritan in the Gospel has become a symbol. [...] The eloquence of the parable of the Good Samaritan, and of the whole Gospel, is especially this: every individual must feel as if called personally to bear witness to love in suffering. The institutions are very important and indispensable; nevertheless, no institution can by itself replace the human heart, human compassion, human love or human initiative, when it is a question of dealing with the sufferings of another. This refers to physical sufferings, but it is even more true when it is a question

of the many kinds of moral suffering, and when it is primarily the soul that is suffering.

This might be treated as a call for certain concrete activities, taken both professionally and personally, that would support these vulnerable in their everyday struggles. Catholic schools and universities are definitely these institutions that should serve first line in that – and it happens. In the *Education today and tomorrow: a renewing passion, Instrumentum laboris* for the International Congress *Education today and tomorrow: a passion renewed*, it is stated:

Those who find themselves in greater difficulties, who are poorer, more fragile or needy, should not be seen as a burden or obstacle, but as the most important students, who should be at the centre of schools' attention and concerns.

Pope Francis speaking at this International Congress (2015) clearly stressed that students' diversity should not be regarded as a problem, but rather as a gift and education should not be provided only for the elites, but for everybody, especially these with wounded hearts or wounded bodies – it is not an act of mercy, but an act of social justice. Inclusive education, as it was stated above, has been directly grounded in Catholic Church social teaching, especially in its call for respecting the dignity of every human being, the idea of common good and a preferential option for the marginalized (cf. Correia, Teixeira 2017). It is also *on a par* with a Christian notion of integral education, in which not only the students' intellectual, but also social, emotional and spiritual development is being nourished, developed and supported (Domagała-Zyśk 2018).

2. Pandemic remote education

Education has been including technology for some decades now. As a German futurist, Gerd Leonhard (2016) states in his books and lectures, technology can be seen as both a threat – and an opportunity for humanity, which it can either serve – or enslave. Contemporary Catholic schools and universities have a special role in this process, this one of not only embracing the technology and use it as tools for magnifying the

cognitive flexibility of young people, but also of taking care for using it in such a way as to help human flourishing thanks to it.

However, technology without personalistic values may de-humanize education, make it robot-like and deprived of human touch. After first experiments with using technological equipments in education (also e.g. tablets for small kids) and many forms of e-learning and online teaching, we understand much better that education is not only about using smarter and smarter technology, but also – as it was for ages – about nourishing specific human abilities, like compassion, creativity, critical thinking, emotional intelligence and ethical awareness. Schools, not only the Catholic ones, should re-think their mission in the context of technology use: this is a mission of educating a whole human being and answering the challenge of “sense making” in a technological world (Queiroz e Melo, 2019). What is more, as it was recognised, when technology is used too early in the child’s life and for too much time, it can bring serious cognitive damages in their intellectual development (Gruszczyk-Kolczyńska, 2017), and also in forming their emotional competences. As Leonhard (2016) mentions, in order to make a proper use of technology in education, *androrithms* should accompany *algorithms*.

This last sentence can serve as a landmark, especially during the time of remote teaching, where technology is used on everyday basis. Remote education can be defined as a process of teaching and learning in which teachers and students are not at the same place (Domagała-Zyśk 2020, 7). It can be organised as online teaching, when classes are given synchronically or a-synchronically and as correspondence teaching, when teachers are sending their students learning materials and tasks to be completed. In order to assess the quality of remote teaching, several issues have to be taken into account: the scope of it (fully online/correspondence/hybrid), teaching strategies, teacher’s digital competence, students’ digital literacy, number of students participating in one unit, equipment and internet accessibility, assessment style (criterial or formative) or strategies for quality assurance and monitoring (Domagała-Zyśk 2020, 7).

3. Pandemic teaching for integral development of SEN students – research results and discussion

First reports on pandemic remote education In Poland (Buchner et al. 2020) showed that the main problem was digital competence/digital literacy of not only teachers but

also students and their parents'. As for the methodology, only one third of teachers in spring 2020 used the active online synchronous teaching; majority of them used the correspondence path sending teaching materials and tasks directly to students.

Remote pandemic teaching created both barriers and opportunities for students with SEN. They will be analysed in this part on the basis of a research project "Remote teaching and learning and special educational needs. Experiences of Covid-19 pandemic" that was designed and conducted at John Paul II Catholic University of Lublin (Domagała-Zysk 2020). The aim of this project was to observe, describe and analyse first experiences of teaching and learning during the spring 2020 Covid-19 pandemic. The young researchers were seven PhD and two MA students. More than 200 students, parents and teachers participated in the research, sharing their experiences and recommendations. They were recruited on voluntary basis with the use of the snowball technique and informed consent was obtained from the participants or their parents/legal guardians. A wide range of research tools was used, different for different study groups: psycho-pedagogical COPE questionnaire (Carver, Scheier, Weintraub 1989) for analysing coping strategies of students with motor disability and speech therapy patients, author-designed questionnaires for deaf and hard of hearing students and their parents (Lewandowska 2020), a questionnaire for parents (Amilkiewicz-Marek 2020), guided interview questionnaires for teachers (Śliż 2020) and interview questionnaires for administrative staff responsible for organising online university education for students with special needs (Gulati 2020). In the research procedure, due to the pandemic restrictions, the CAWI (*Computer-Assisted Web Interview*) technique was used. Main results and recommendations will be presented below.

3.1. Pandemic – time of trauma and life threat

Even if Covid-19 pandemic in spring 2020 in Poland was not so severe (the number of these infected was still under control and lower than in other countries), this was a time of traumatic stress for many students – especially these with SEN or disabilities. As they admit in our research (Korach 2020), they had to confront their everyday life conditions and medical and psychological needs, routines and plans – against the pandemic reality. In the time of scarcity of hospital beds and respiratory equipment they named themselves 'respiratory patient' which meant that in case of SARS infection,

their medical condition, being worse than in general population, e.g. because of physical disability, would become so bad as to make them confined to the hospital beds and respiratory equipment for weeks or even months. The time was traumatic also for adult persons with intellectual disabilities and their families. As other research show (Gold et al. 2020, Garg et al. 2020, Turk et al. 2020, Turk, McDermott 2020) the mortality rate of persons with intellectual disabilities, especially these living in residential homes, was in some districts four times as many as people without disabilities. It is also hard – or sometimes not possible at all for physically disabled people to keep the social distance, as they require support from others in everyday activities (Korach 2020), so it means they were much more endangered with infection and also perceived as these who might easily infect others.

Knowing and reflecting all these it is not surprising that students with physical or intellectual disabilities experienced problems in motivation to learn and plan their learning in such unpredictable time. The aforementioned rule of “Maslow over Bloom” applies here in full extent – it is dramatically difficult to execute and enjoy your right to education when your basic rights and needs (e.g. a need for physical and psychological comfort) have not been met. However, Korach’s research with people with physical disabilities (N=30) shows also that the pandemic time was a time not only of trauma – but growth. The main coping strategy the students mentioned was acceptance of the situation and positive re-evaluation of one’s goals and values.

3.2. Inclusion confirmed

Everyday work on inclusion – high quality education for every student (Domagała-Zyśk 2018, Domagała-Zyśk, Knopik 2020) sometimes does not seem to be too much effective in case of students with SEN – though they formally study together with their peers, they might feel isolated or even rejected. However, the pandemic time confirmed the need expressed by the SEN children and adolescents to learn together with their peers. Reports (Ptaszek et al. 2020, N=1284) show that students’ well-being declined in 48% participants and media often presented students’ remarks on their will to come to school as soon as possible. The same results got Lewandowska in our research (2020, N=33) among 9-15 year old deaf and hard of hearing students. When asked what do they miss most in online learning they pointed out that these are relations with their

peers. Loss of regular contact with their teachers and peers was also difficult for children with Autistic Spectrum Disorder and complex intellectual disabilities, according to their teachers (Kuřaga 2020). Though one may advocate they probably might feel better when left alone in “their own world”, the students signalled directly the opposite: they missed their teachers and peers, showed real excitement when observing them on videoconferencing classes and expressed motivation to come back to school as soon as possible.

3.3. If it is not for parents...

Parents have been real heroes of pandemic online education. Navigating bravely between their own professional duties and the needs of their children, they took care for the equipment, accompany the children in meeting the school requirements and tried to secure children’s mental and physical well-being. As Amilkiewicz-Marek (2020, N=45) concludes, their main coping strategies were being active, planning, accepting the situation and re-valuing the priorities. This last element is probably common to the society in general, as pandemic helped us understand better our true needs and values and these are not always connected with financial or intellectual success, but rather with building true relationships. As parents noticed, it was difficult time, but it was also a good time – *I learned more about my child and got to know him better, we do have a better relationship now* (Amilkiewicz-Marek 2020).

3.4. Leadership for schools

Pandemic time showed a real necessity for true leaders, who are able to construct a modified vision and mission for the institution in a crisis time. Teachers interviewed by Śliz (2020) admitted this was a crucial factor of their coping with this new and difficult situation. A true leader has not only managed the school processes, but showed and shared resilience and positive ways of coping: how to overcome the “syndrome of a black wall” – when teachers are to teach without seeing their students, how to use the IT services not known a week ago, how to support children – feeling worried personally about themselves and members of their families. Teachers stressed that the most important factors that helped them were: supportive school leader (headmaster), good organisation, clear plan and principles, IT support from professionals and peers, cooperation moderated by their principal, openness and creativity (Śliz 2020).

3.5. Opportunities for higher accessibility

Online teaching created also some new opportunities for SPE students. For these with physical disabilities, it creates more accessible learning environment – they do not have to travel long distances to participate in lessons, classes or lectures. As one of the students with severe physical disability mentioned, “*Now I know I can study in any university all over the world*” (Korach 2020).

Paradoxically, online teaching was beneficial for some students with hearing disorders. When in brick and mortar classes, they experience a lot of situations where their accessibility needs are not met: it is difficult for them to lip-read when the teacher is walking around the classroom, to understand other students’ voices when they come from different corners of the classroom, there is a lot of noise and it is difficult to use hearing aids all day long, as it brings a lot of tiredness and fatigue. On the contrary, when participating in online classes, deaf and hard of hearing students can see the teacher’s face and other students’ faces on the screen clearly and lip read them precisely. What is more, free applications like Hamilton Mobile Captel, LiveTranscribe, Google Assistant Speech-to-Text, SpeechTexter or Dragon Dictation can transcribe speech into text so they actually can read everything what has been said. In online teaching students got also a lot of written teaching materials, follow visual presentations, chat with their friends (as everybody chats on the teaching and learning platforms) and take written tests. This is not to say they benefit more from online than face to face education. This is to notice that the IT services that are now used in online learning, might and should stay at schools as they can immensely support accessibility for SEN children.

Pandemic helped also to overcome some barriers that seemed to have been set for ages. One of them is connected with e-therapy. So far it was rarely checked and used – if a child/a patient was not able to come for a therapy session it would mean not having a therapy class at all. Siedliska (2020, N=30), being a speech therapist, checked and described an innovative program of online speech therapy. It is not to say it can replace a face to face regular meetings, but in a time of social distancing lasting for months, this was the only possibility to continue the therapy program. These experiences will become a standard for future therapy programs – conventional therapy might be accompanied with e-therapy videoconferencing sessions to support children and adults who cannot join the face to face classes regularly.

Conclusions and recommendations

Though the pandemic time is still bringing new challenges, it is possible to conclude the experiences of the first pandemic wave. For teaching and learning of students with special educational needs it was also a time of many new discoveries. Not only in Poland it introduced IT technology as an indispensable element of education. This can serve also in a post-pandemic world to enable participation in education for these excluded so far because of physical distances or medical conditions, heighten accessibility thanks to speech-to-text and text-to-speech applications and make education more versatile. New teaching approaches have become to be used in online teaching and learning, even if they have been despised earlier:

- teachers refer students to more diverse sources of knowledge, serving less as knowledge transmitters, and more as those who explain the knowledge the children have acquired earlier (this can be referred to the Flipped Classroom Approach, King 1993),
- students, learning mainly from homes, learn more from everyday experience and can apply knowledge in everyday environment (Experiential Learning Approach, Kolb 1984, Domagała-Zysk 2016)
- classes are multisensory and more accessible thanks to IT services (Universal Design for Learning, Rose, Meyer 2002, Domagała-Zyśk 2020)

Online teaching has changed also the style of student-teacher-parent communication. It has become more direct. Parents can in a way “host” teachers in their homes, listen to the classes, communicate online. This definitely enriched the conventional teacher-parent communication style and may create new ways for future cooperation.

References

- Amilkiewicz-marek A. (2020). Rola rodziców w edukacji zdalnej uczniów ze specjalnymi potrzebami edukacyjnymi w klasach trzecich. W: E. Domagała-Zyśk (ed.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme, 129-164.
- Buchner, A., Majchrzak, M., Wierzbicka, M. (2020). *Edukacja zdalna w czasie pandemii. Raport z badań*. Centrum Cyfrowe, <https://centrumcyfrowe.pl/edukacja-zdalna>

- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267-283.
- Congregation for Catholic Education (For Educational Institutions) (2014). *Educating Today and Tomorrow: A Renewing Passion. Instrumentum laboris*. http://www.vatican.va/roman_curia/congregations/ccatheduc/documents/rc_con_ccatheduc_doc_20140407_educare-oggi-e-domani_en.html
- Correia, Ana M., Teixeira, Vitor S. (2017). Catholic Schools and Inclusive Education in Macao: A Journey of a Thousand Miles. *EDUCA – International Catholic Journal of Education*, 3, 2017, p. 85-101.
- Domagała-Zysk E. (2019). *Projektowanie uniwersalne w inkluzyjnej edukacji uczniów ze spektrum autyzmu*. Strategie i rekomendacje. W: A. Prokopiak (red.) *Osoby ze spektrum autyzmu w biegu życia*. Lublin:Wydawnictwo UMCS, s.139-158.
- Domagała-Zysk E. (2016). *Vocabulary teaching strategies in EFL classes for deaf and hard of hearing students*. W: E. Domagała-Zysk, E.H. Kontra (red.) *English as a foreign language for deaf and hard-of-hearing persons. Challenges and strategies*. Newcastle upon Tyne: Cambridge Scholars Publishing, s. 135-152.
- Domagała-Zysk E. (2018). Integral development of students with special educational needs in inclusive education from a personalistic perspective. *Paedagogia Christiana* 2/42, 181-194.
- Domagała-Zysk E. (red.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme.
- Domagała-Zysk E., Knopik T. (2020). Functional diagnosis as a strategy for implementing inclusive education in Poland. *Revista Brasileira de Educação Especial*, 26,2,203-330.lb.
- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, J. (2020). Thinking about pedagogy in an unfolding pandemic: An independent report on approaches to distance learning during COVID-19 school closures. Version 2.0, 29 March. Pobrane z: <https://issuu.com/educationinternational/>
- Francis. (2015). Discurso do papa francisco aos participantes no congresso mundial promovido pela congregação para a educação católica com o tema: “Educar hoje e amanhã. uma paixão que se renova”. Retrieved from https://w2.vatican.va/content/francesco/pt/speeches/2015/november/documents/papafrancesco_20151121_congresso-educazione-cattolica.html
- Garg, S., Kim, L., Whitaker, M., et al. (2020). Hospitalization rates and characteristics of patients hospitalized with laboratory-confirmed coronavirus disease 2019 — COVID-NET, 14 states, March 1–30, 2020. *Morb Mortal Wkly Rep*. 69:15, 458-464. doi: <https://doi.org/10.15585/mmwr.mm6915e3>.
- Gold, J.A., Wong, K.K., Szablewski, C.M. et al. (2020). Characteristics and clinical outcomes of adult patients hospitalized with COVID-19 — Georgia, March 2020. *Morb Mortal Wkly Rep*. 69:18, 545-550. <https://doi.org/10.15585/mmwr.mm6918e1>.

- Gruszczyk-Kolczyńska E. (2017). Tabletowe dzieci. Ile zła wyrządza dzieciom tablet reklamowany jako najlepsza zabawka dla twojego dziecka. Ku rozwadze dorosłym, którzy temu ulegają. *Szkoła Specjalna*, 5 (291), 325-334.
- Gulati B. (2020). Organizacja edukacji zdalnej dla studentów z niepełnosprawnościami – rekomendacje. W: E. Domagała-Zyśk (ed.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme, 165-194.
- Hodges, Ch., Moore, S., Locke, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>, retrieved 24 August 2020.
- John Paul II (1984). Salvifici Doloris. Retrieved from: http://www.vatican.va/content/john-paul-ii/en/apost_letters/1984/documents/hf_jp-ii_apl_11021984_salvifici-doloris.html
- King, Alison (1993). From sage on the stage to guide on the side. *College Teaching*, 41 (1): 30–35. doi:10.1080/87567555.1993.9926781.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- Korach P. (2020). Znaczenie wsparcia społecznego dla osób z niepełnosprawnością ruchową w czasie pandemii. W: E. Domagała-Zyśk (ed.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme, 41-62.
- Leonhard, G. (2016), *Technology vs. Humanity: The Coming Clash Between Man and Machine*, USA: Fast Future Publishing.
- Lewandowska P. (2020). Dostępność edukacji zdalnej dla uczniów z niepełnosprawnością słuchową w klasach IV–VIII. W: E. Domagała-Zyśk (ed.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme, 11-40.
- Paul VI. (1965). Declaration on christian education – gravissimum educationis. Retrieved from http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vatii_decl_19651028_gravissimum-educationis_en.html
- Ptaszek, G., Bigaj, M., Dębski, M., Pyżalski, J., Stunża, G. (2020). *Zdalna edukacja – gdzie byliśmy, dokąd idziemy? Wstępne wyniki badania naukowego „Zdalne nauczanie a adaptacja do warunków społecznych w czasie epidemii koronawirusa”*. Warszawa.
- Queiroz e Melo, R. (2019). Catholic schools in a T-world – front runners in sense making? *EDUCA – International Catholic Journal of Education*, 5, 61-76.
- Rose D.H., Meyer A. (2002). *Teaching every student in the digital age: Universal Design for Learning*. Alexandria: ASCD.
- Siedliska A. (2020). Zdalna terapia logopedyczna osob dorosłych z zaburzeniami neurologicznymi. W: E. Domagała-Zyśk (ed.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme, 63-82.

- Śliż K. (2020). Doświadczenia nauczycieli w edukacji zdalnej podczas pierwszego etapu pandemii. W: E. Domagała-Zyśk (ed.) (2020). *Zdalne uczenie się i nauczanie a specjalne potrzeby edukacyjne. Z doświadczeń pandemii Covid-19*. Lublin: Episteme, 95-128.
- Turk, M.A. and McDermott, S. (2020). The Covid-19 Pandemic and People with Disability. *Disabil. Health J.* 100944.
- Turk, M.A., Landes, S.D., Formica, M.K., Goss, K.D. (2020). Intellectual and Developmental Disability and COVID-19 Case-Fatality Trends: TriNetX Analysis. *Disability and Health Journal.* 100942.

Article received on 28/04/2021 and accepted on 29/07/2021.

Creative Commons Attribution License | This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.