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PEDAGÓGIAI ÉS PSZICHOLÓGIAI KAR

THESIS SUMMARY

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Examination of the Impact of an Attitude-changing Program on People with Disabilities Using the Solomon Four-Group Experimental Design

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Table of Contents

<i>Introduction</i>	2
<i>Objective</i>	3
<i>DAT Program</i>	4
<i>Materials and Methods</i>	6
<i>a, Multidimensional Attitude Scale (MAS)</i>	7
<i>b, Bogardus Social Distance Scale</i>	7
<i>c, Affinity-Aversion Scale</i>	8
<i>d, ATDP-O Scale</i>	8
<i>Results and Conclusion</i>	10
<i>Table of figures</i>	12
<i>References</i>	12

Introduction

The primary goal of the European Commission's 2010-2020 European Disability Strategy was to empower individuals with disabilities, enabling them to enjoy equal rights with other members of society and access the benefits of social participation and the European economy (European Commission, 2010). Despite achievements over the past decade, people with disabilities continue to face significant obstacles and are more exposed to the risk of exclusion compared to members of the majority society. In March 2021, the European Commission adopted the strategy for the enforcement of the rights of persons with disabilities for the period 2021-2030 (European Commission, 2021). This strategy reaffirmed and renewed key elements of the previous strategy in eliminating barriers, including accessibility, participation, equality, employment, as well as education and training. It is evident that these positions align with the United Nations Convention on the Rights of Persons with Disabilities (hereafter: the Convention), which had a significant and pervasive impact on individuals with disabilities upon its appearance in 2006, recognizing and acknowledging their fundamental human rights in all areas of life and promoting their full and equal participation in society (Mikola, 2017). Our research is guided by a deep commitment to improving the employment market situation for people with disabilities. The main reason for choosing this topic is our recognition of the importance of shaping inclusive environments, acknowledging the decisive role of this attitude in creating inclusive workplaces. Building on the fundamentals of disability studies, our work encompasses the areas of co-creation, participation, and attitude examination methodologies. Positioning people with disabilities as experts in the process, the research aims to contribute new perspectives to the social sciences, shedding light on the symbiotic relationship between the labor market and the creation of genuinely inclusive environments. All of this is inconceivable without a change in societal attitudes, for which the legal regulation of equal opportunities, the requirement of equal treatment, and the prohibition of discrimination provide a solid foundation. While the state strives to ensure the fair quality of life for people with disabilities and improve their equal participation in social processes through the development of the legal environment, this alone is not sufficient to change the overwhelmingly negative attitudes prevalent in society (Tan et al., 2019; Sánchez et al., 2021; Lotz, 2021). One of the most important findings and recommendations of international research on changing attitudes towards disability is that attitude change requires multi-dimensional strategies at personal, community or organizational, and governmental levels (Tan et al., 2019). Fisher and Purcal (2017), in their systematic literature review, concluded that multi-level interventions

prove more effective as they address the diversity of experiences related to disability, reinforce positive attitudes, and transform pre-existing negative attitudes. There is strong evidence that direct contact with people with disabilities improves people's perceptions, leading to a more positive attitude (Murfitt, 2006; McManus et al., 2011; Keith et al., 2015; Fisher & Purcal, 2017). Overall, different social groups must approach each other to change negative attitudes and demonstrate an inclusive mindset in social processes (Argyropoulos & Kanari, 2019). Stereotypes and prejudices associated with people with disabilities must be overwritten with new social constructs (Hannon, 2007) to ensure equal opportunities and fairness in learning, work, living conditions, and social existence for those involved.

Objective

An important element of domestic employment policies is the promotion of employability for disadvantaged groups of workers; the (re)integration of individuals who have been persistently distant from the labor market, and the equalization of their competitiveness. In the past two decades, significant efforts have been made in Hungary as well to facilitate the entry and reintegration of individuals with changed work capacity into the labor market, as part of the complete social inclusion of people with disabilities (Mecséri, 2021). Therefore, the aim of this research was to create and quantitatively assess a participatory (developed with the participation of people with disabilities), strategically significant, and professionally well-defined attitude-changing program related to people with disabilities, targeting the adult population of the majority society. Another goal is to connect research and development activities with labor market actors, touching upon the areas of ELTE's third mission and expanding the service portfolio of ELTE, including ELTE BGGYK.

The attitude-changing program was built in a modular system, and these modules were developed with the participatory involvement of people with disabilities, in accordance with international literature recommendations. The highest level of participation characterized the creation and implementation of the program, as individuals with disabilities were involved from brainstorming to execution, including designing the program's components, coming up with unique interactive assignments, carrying out the lectures and assignments, and, at the end, providing feedback and evaluation. The program modules, following Murfitt's (2006) recommendations, include experiential practices developed with the involvement of people with disabilities and encompass the following: ensuring equal status of disabled and non-disabled individuals during the program; facilitating mutual understanding; achieving common goals through joint participation in tasks; providing knowledge about specific types of

disabilities. To achieve multi-level, long-term attitude change, the program was implemented over three sessions. For the quantitative examination, we applied an adapted version of the Situational Multidimensional Attitude Scale (MAS), originally developed by Findler and colleagues (2007) and tested by Lendvai (2019) in Hungary. The MAS aims to explore attitudes toward people with disabilities (specifically, those with hearing impairments or physical disabilities). To ensure reliable and valid investigation on the small sample, we applied the Solomon Four-Group Experimental Design, capable of controlling both internal and external validity-threatening effects (Braver & Braver, 1988; Gyulavári et al., 2015; Navarro & Siegel, 2018; Mai et al., 2020). The goal of our research is to create a product that is an innovative, scientifically based attitude-changing program developed with the involvement of people with disabilities, along with its quantitatively researched and impact-assessed results, serving as a best practice that can bridge the academic and corporate spheres.

DAT Program

Our participatory attitude-changing program related to people with disabilities, known as DAT, was born as a result of the 2020 "Doctoral Projects" consortium research support grant, with the collaboration of Dr. Eszter Loványi, Adrienn Anita Tóth, Andrea Détár, Richárd Mányik, and the doctoral students' supervisors. The research served a dual purpose: it acted as a pilot in methodology and theme for the doctoral students participating in the consortium's research and contributed to changing societal attitudes towards people with disabilities. The research group aimed to create a program targeting the majority population, primarily involving non-professionals or future professionals. Therefore, we chose the open labor market as the target audience. Our DAT programme introduces the idea, application, and practise of equal access in order to enable inclusive organisational culture change and maintenance while keeping in mind the principles suggested by the literature. Participatory involvement and perspective are essential elements of it. Attitude-changing programs have the potential to shift attitudes towards acceptance in the long term, influencing workplace atmosphere and supporting the active participation of people with disabilities in societal processes (e.g., Symeonidou & Loizou, 2018). We structured our program in a modular system, and the content of the modules remained consistent throughout the pilot testing and subsequent research, with minimal modifications based on specific locations and needs (e.g., start time, number of individuals in group tasks, extension of program duration based on emerging questions). The DAT program consists of three sessions, each lasting approximately 3.5 hours. The length of the program was influenced by the level of activity and engagement. These three sessions

were implemented on consecutive weeks to ensure continuity and connection between the experimental group, researchers, and disabled experts. The sessions were led by three doctoral students, Dr. habil. Andrea Perlusz as the research supervisor, and two experiential experts: Dr. Eszter Loványi representing individuals with hearing impairments and Richárd Mányik representing individuals with mobility limitations.

During the first day of our three-session program, the emphasis was on the practical transfer of knowledge about disabilities. This involved workshop-style activities to explore the individual characteristics and features of various types of disabilities, including the use of simulations in some cases. On the second occasion, teams present cooperatively completed a task related to the processing of a text titled "Bank of Special Needs." This task focused on universal design, reasonable accommodation principles, accessibility, and the "Nothing About Us Without Us!" principle. Additionally, a collaborative project was conducted during the second session, where groups received a task focusing on the possibilities for making the company's environment and work processes more accessible. The groups were provided with the resumes of individuals with various changed work capacities and, following a specific criterion, developed a strategy for employing each person. The final session included a Living Library program, where participants had conversations with individuals affected by autism spectrum disorder, intellectual disability, visual impairment, and hearing impairment, as well as Eszter and Richárd serving as conversational partners. The program concluded with a team-building activity where the experts and participants jointly completed the Marshmallow Challenge, emphasizing collaboration, positive atmosphere, team spirit, and enjoyable time together. The detailed structure of the program is illustrated in Figure 1.

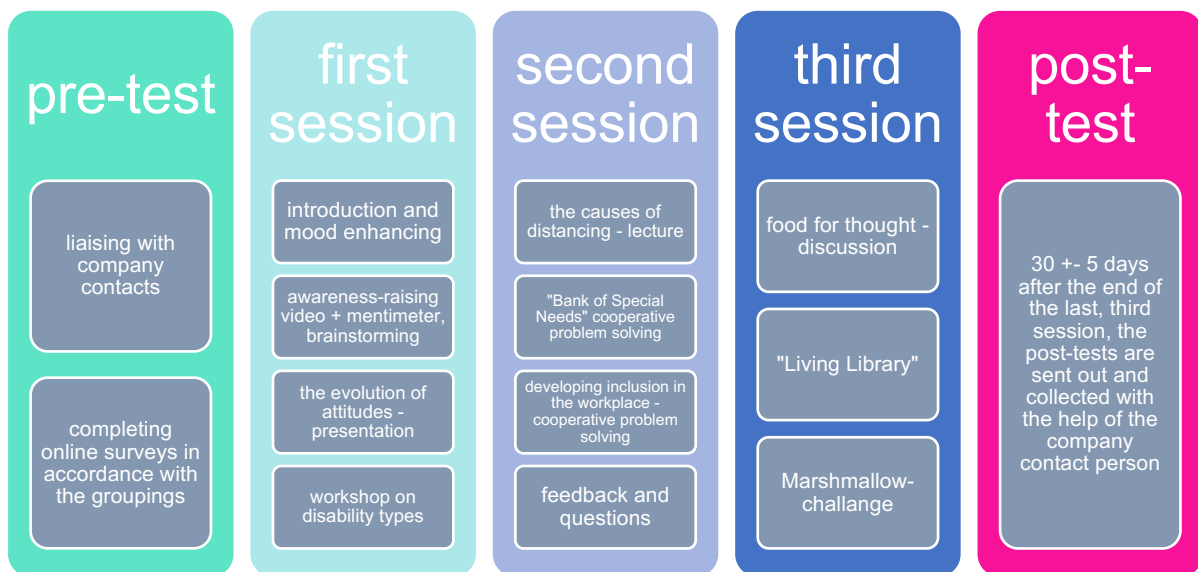


Figure 1. The basic framework of our disability awareness training (DAT)

The focus of inclusion is on the environment, so if it can respond adequately to the needs of the people living in it, the mutual acceptance of every individual can be successful, and every aspect of diversity can be revalued (Varga, 2015). DAT aims to strengthen one aspect of addressing social challenges by emphasizing social responsibility. The collaboration between the corporate sector and higher education institutions for research and development provides a good opportunity for mutual learning and is essential for the development and implementation of best practices. Our participatory disability awareness program, based on scientific principles, contributes to increasing the workforce's capacity for inclusion in the social integration of people with disabilities.

Materials and Methods

In the first phase of our research, we conducted a pilot study. Our general aim was to test our awareness program elements, accompanied by research, involving market players, for the non-disabled adult population. Specifically, during the pilot study, we assessed the characteristics of sampling and control group formation, the feasibility of questionnaire completion, methods of establishing and maintaining contact with the company, the exact duration and costs of the program and research. In this phase, we did not have a specific goal of examining statistical data according to the Solomon four-group experimental design; rather, our focus was on forming groups according to the design and identifying the difficulties and characteristics of the research and design. We examined dropout rates related to the questionnaire, which groups might be affected, and how this might influence the success of our research. The experimental group consisted of individuals who applied for the program, while the control group included those who did not participate in the structured attitude-changing program but were employees of the same company as the experimental group. Sampling was non-probabilistic and based on self-selection. The pre-test was conducted before the first program, while the post-test took place on the 30±5th day after the third program, both through an online platform. The structure of the questionnaire is illustrated in Figure 2.

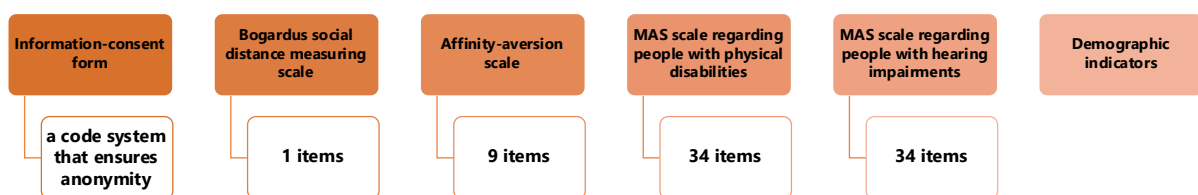


Figure 2. Structure of the questionnaire used for the pilot study

a, Multidimensional Attitude Scale (MAS)

Findler and colleagues (2007) aimed to create an attitude scale based on solid theoretical foundations and with robust psychometric indicators. The scale is built on the tripartite structure of attitudes, including affective, cognitive, and behavioral items. Their statistical investigations confirmed that the three components are moderately related to each other, indicating a common foundation, yet representing different entities. They supported the applicability of the procedure for exploring the multidimensional phenomenon. The tool's concurrent validity was tested with the ATDP scale (affective and behavioral dimensions). Overall, the attitude scale was considered useful due to its adequate internal consistency and validity, but the authors cautioned that culture-specific factors might have influenced the questionnaire's structure and that the tool should be examined in other countries for cross-cultural validation (Stevens et al., 2013). The questionnaire is unique in that, despite being a self-reporting direct method, it is based on projection techniques. This approach reduces the risk of respondents providing socially acceptable answers that may differ from their actual opinions (Findler et al., 2007). The three dimensions include a total of 34 items: 16 affective, 10 cognitive, and 8 behavioral components. The emotional scale items range from 6 to 8, the cognitive scale from 17 to 26, and the behavioral scale from 33 to 34 are reversed, so special attention must be paid to this during result processing. Responses are marked on a 5-point Likert scale, ranging from 1 (not at all) to 5 (completely), with a maximum score of 170. The higher the individual's score, the more negative the attitude is assumed. In the original situation, the interaction occurs between a person using a wheelchair and Joseph/Michelle, which is ideal for our research. However, our study emphasizes determining attitudes toward individuals with hearing impairments, so we applied the scale twice in our questionnaire. The questionnaire's modularity allows it to be adapted to various situations and disabilities (Vilchinsky et al., 2010; Stevens et al., 2013; Wöhrle et al., 2018; Lu & Kim, 2017). For our pilot study, we used the scale translated into Hungarian by Lendvai (2019).

b, Bogardus Social Distance Scale

The measurement of social distance is often used in prejudice research as a type of attitude measurement (Héra, 2011). Participants are asked to indicate the level of intimacy they would approve between themselves and members of other social groups (Forgács, 2017). For our research, we used a 6-level single-item scale created by Diószegi and Fehér (2005) and

applied by Lendvai (2019), where respondents could mark their response on a scale ranging from 1 (would accept as a family member) to 6 (would not live in the same country).

c, Affinity-Aversion Scale

Measuring the affinity-aversion dimension can help uncover attitudes and stereotypes related to marginalized groups (Murányi, 1999). Lendvai (2019) created a scale for individuals with disabilities based on Erős et al., (1996), outlining members of nine different disability groups. Respondents need to rate on a 5-point Likert scale (1: very aversive - 5: very sympathetic) how much they find individuals belonging to the specified groups sympathetic or aversive.

Subsequently, in the second phase of our research, we validated the MAS questionnaire. To conduct reliable and valid investigations related to our participatory attitude-changing program, we found it necessary to subject the MAS scale to a representative large-sample examination. In order to accomplish this, we commissioned a market research company, which provided a representative sample of 1000 individuals in Hungary. The questionnaire used for the research included the MAS scale, along with the additional scales mentioned during the pilot study and was supplemented with the Hungarian version of the ATDP-O scale.

d, ATDP-O Scale

The ATDP scale was created to explore the general attitudes of neurotypical individuals toward people with disabilities (Yuker et al., 1970). This tool is one of the most widely used in the international literature, translated into numerous languages, and tested for usability (Lam et al., 2010). The content of the items in the questionnaire was drawn from the author's literature reviews and discussions with psychologists. The questionnaire currently has three forms: the O type, consisting of 20 items, and its enhanced versions (A and B), containing 30 items. The ATDP measures respondents' agreement using a six-point Likert-type scale, ranging from -3 (strongly disagree) to +3 (strongly agree) (with items 2, 5, 6, 11, and 12 reversed). Scores can range from 0 to 120 (rated on a scale of 1-6), with higher scores indicating a more accepting attitude toward people with disabilities, while lower scores reflect discriminatory or rejecting attitudes (Lendvai, 2019; Arabi et al., 2021). The final structure of the questionnaire is shown in Figure 3.

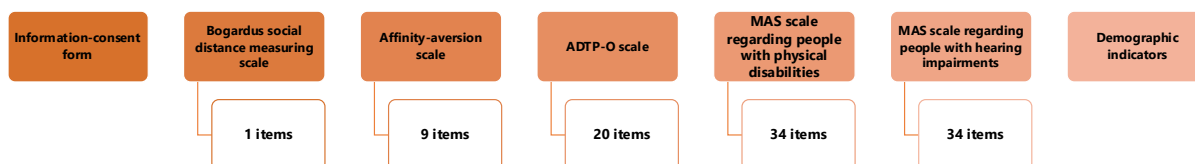


Figure 3. Structure of the questionnaire used for the large sample survey

Finally, in the third phase of our research, we conducted an impact assessment of our disability awareness program using the Solomon four-group experimental design. Our goal was to ensure the validity and reliability of our research and to contribute to the promotion of workplace inclusion for people with disabilities. Additionally, we wanted our research to support the spread of evidence-based attitude-changing programs as best practices. The Solomon four-group experiment is considered one of the strictest and most robust research methods for impact assessments, applicable to both true experimental and quasi-experimental studies (e.g., McGahee et al., 2009; Shihusa & Keraro, 2009; Levy & Ellis, 2011; Diaz & Dio, 2017). It involves four groups, with individuals being randomly assigned to them. The first and second groups represent a classic experiment. The experimental stimulus is given to the third group without a pretest, while the fourth group only receives a post-test. This process goes beyond the constraints of pretest-posttest control group and posttest-only control group approaches by accounting for all other external variables in addition to controlling interaction effects, which lessens threats to internal validity (Braver & Braver, 1988; Gyulavári et al., 2015; Navarro & Siegel, 2018). Moreover, it enables the analysis of the statistical interaction between two factors. This means we can ascertain whether the pretest alters the impact of the intervention, whether the intervention produces a distinct effect on those who undergo a pretest compared to those who do not. (Campbell & Stanley, 1963). Since our research did not have sufficient control over external variables, and we could not randomly assign participants—thus ensuring sample homogeneity—our study is considered a quasi-experimental procedure.

<i>Solomon four-group design</i>	<i>TIME -----»30±5 days</i>		
	<i>PRE-TEST</i>	<i>EFFECT</i>	<i>POST-TEST</i>
<i>A – treatment group I.</i>	<i>O₁</i>	<i>X</i>	<i>O₂</i>
<i>B – control group I.</i>	<i>O₃</i>		<i>O₄</i>
<i>C - treatment group II.</i>		<i>X</i>	<i>O₅</i>
<i>D – control group II.</i>			<i>O₆</i>

Figure 4. Layout of Solomon's four-group experiment, adapted from Navarro et al., (2018)

The selection of companies was done through a non-probability sampling technique, specifically the snowball method, based on recommendations and approaches. Within the companies, individuals volunteering for the experimental group were randomly assigned to Groups A and C, while those volunteering for the research were assigned to Groups B and D. Just like with the pilot study, the research was conducted online within the specified time frame. For data analysis and conducting the impact assessment, we relied on meta-analysis, following the approach suggested by Braver and Braver (1990).

Results and Conclusion

This study contributes to the expanding theoretical framework of disability studies by examining the effectiveness of a participatory attitude-changing program related to individuals with mobility and hearing impairments. The situational MAS attitude scale used in the study allowed us to assess changes in attitudes toward the two disability groups due to the program. To ensure control over reliability indicators, we subjected the MAS scales to factor analyses on a representative sample, thus revising our scales. Although the original scale's factor structure changed, it remained consistent with international literature recommendations. In the end, a 28-item scale was used to measure attitudes in both cases. The impact assessment of our attitude-changing program was based on a quasi-experimental procedure using the Solomon four-group design. In this process, we compared the attitudes of those participating in the intervention with those who did not, supporting our initial assumption that a scientifically grounded, participatory attitude-changing program can positively alter participants' attitudes toward individuals with disabilities. We deemed it important to validate our theory, as negative attitudes toward people with disabilities can lead to discrimination, exclusion, and social isolation. By promoting positive attitudes toward individuals with disabilities, attitude-changing programs can contribute to reducing these negative consequences and promoting inclusion.

Future research in Hungary, building on this study, can examine the long-term effects of attitude-changing programs on attitudes toward people with disabilities. This may include tracking participants over an extended period to determine whether observed attitude changes are enduring or diminish over time. Although not the focus of this study, directly monitoring attitude-changing programs and exploring feedback and experiences related to the program could help nuanced investigations of its effects. Furthermore, future research could uncover other factors influencing attitudes toward people with disabilities, such as individual beliefs,

social norms, and cultural values. Identifying these factors would enable researchers to design more comprehensive and targeted programs that align with participants' needs and experiences. In conclusion, the significant findings of this research support individuals with disabilities, employers, and all stakeholders interested in promoting greater inclusion and participation of individuals with disabilities. By increasing awareness and promoting positive attitudes toward people with disabilities, stakeholders can become more involved in society and fully harness their potential. This, in turn, could provide individuals with disabilities with genuine opportunities and a better quality of life, creating a more diverse and inclusive society for everyone.

Table of figures

Figure 1. The basic framework of our disability awareness training (DAT)	5
Figure 2. Structure of the questionnaire used for the pilot study	6
Figure 3. Structure of the questionnaire used for the large sample survey.....	9
Figure 4. Layout of Solomon's four-group experiment, adapted from Navarro et al., (2018)	9

References

- Arabi, H., Adarmouch, L., & Eladip, G. A. (2021). The assessment of student doctors' attitude towards disabled people after teaching them a module. *Acta Bio Medica: Atenei Parmensis*, 92(2). DOI: 10.23750/abm.v92i2.9547
- Argyropoulos, V., & Kanari, C. (2019). The role of non-formal learning environments in education and socialization of children with visual disability: the case of museums. In: S. Halder & V. Argyropoulos (Eds) *Inclusion, Equity and Access for Individuals with Disabilities. Insights from educators across the world* (pp. 125-151).
- Braver, M. W., & Braver, S. L. (1988). Statistical treatment of the Solomon four-group design: A meta-analytic approach. *Psychological bulletin*, 104(1), 150-154. DOI: 10.1037/0033-2909.104.1.150
- Braver, S. L., & Braver, M. C. W. (1990). Meta-analysis for Solomon four-group designs reconsidered: A reply to Sawilowsky and Markman. *Perceptual and Motor Skills*, 71(1), 321-322. DOI: 10.2466/pms.1990.71.1.321
- Campbell, D. T., Stanley, J. C., & Gage, N. L. (1963). *Experimental and quasi-experimental designs for research*. Houghton, Mifflin and Company.
- Diaz, E. D., & Dio, R. V. (2017). Effectiveness of Tri-in-1 strategic intervention materials for grade 9 students through solomon four-group design. *Published in Asia Pacific Journal of Education, Arts and Sciences*, 4(1). E-ISSN 2362-8030
- Diószegi, B., & Fehér, B. (2005). A deliberációs csoportok társadalmi távolságérzetének változása és ennek okai. In A. Örkény, & M. Székely (szerk.), *Magyar Agora*, 159-171.
- Egyesült Nemzetek Szervezete (2006). Fogyatékosággal élő személyek jogairól szóló ENSZ-egyezmény (*Convention on the Rights of Persons with Disabilities*). G.A. Res. 61/611, U.N. GAOR, 61st Sess., U.N. Doc. A/RES/61/611.
- Erős, F., Fábián, Z., Enyedi, Z., & Fleck, Z. (1996). Előítéletek, autoritarizmus, és politikai ítéletek, autoritarizmus és politikai attitűdök a posztkommunista átalakulás idején: Magyarország, 1994 (Kérdőíves vizsgálat). Budapest, MTA Pszichológiai Intézete.
- Európai Bizottság (2010). Európai fogyatékosági stratégia 2010-2020: megújított elkötelezettség az akadálymentes Európa megvalósítása iránt. *A Bizottság Közleménye az Európai Parlamentnek, a Tanácsnak, az Európai Gazdasági és Szociális Bizottságnak és a Régiók Bizottságának*. Brüsszel, COM(2010) 636 végleges.

- European Commission (2021). Union of Equality. Strategy for the Rights of Persons with Disabilities 2021-2030. Luxembourg: Publications Office of the European Union. doi:10.2767/31633
- Fisher, K. R., & Purcal, C. (2017). Policies to change attitudes to people with disabilities. *Scandinavian Journal of Disability Research*, 19(2), 161-174. DOI: 10.1080/15017419.2016.1222303
- Forgács, A. (2017). *Fejezetek a kommunikáció szociálpszichológiájából*. Budapest, Akadémiai Kiadó. DOI: 10.1556/9789634541059.
- Gyulavári, T., Mitev, A. Z., Neulinger, Á., Neumann-Bódi, E., Simon, J., & Szűcs, K. (2015). *A marketingkutató alapjai*. Budapest, Saldo kiadó és könyvesbolt.
- Hannon, W. P. (2007). *The relationships between institutional and teacher background variables and teachers' attitudes toward medically fragile children in the classroom* (PhD Thesis). University of South Alabama.
- Héra, G. (2011). Az előítéletesség újradefiniálása. *Új Ifjúsági Szemle*. 2011(1), 39-52.
- Keith, J. M., Bennetto, L., & Rogge, R. D. (2015). The relationship between contact and attitudes: Reducing prejudice toward individuals with intellectual and developmental disabilities. *Research in developmental disabilities*, 47, 14-26. DOI: 10.1016/j.ridd.2015.07.032
- Lam, W. Y., Gunukula, S. K., McGuigan, D., Isaiah, N., Symons, A. B., & Akl, E. A. (2010). Validated instruments used to measure attitudes of healthcare students and professionals towards patients with physical disability: a systematic review. *Journal of neuroengineering and rehabilitation*, 7, 1-7. DOI: 10.1186/1743-0003-7-55
- Lendvai, L. (2019). *A látássérült személyekkel kapcsolatos többségi attitűdök és azok percepciója* (PhD Thesis). Budapest, Eötvös Loránd University.
- Levy, Y., & Ellis, T. J. (2011). A guide for novice researchers on experimental and quasi-experimental studies in information systems research. *Interdisciplinary Journal of information, knowledge, and management*, 6, 151.
- Lu, J., & Kim, K. H. (2017). Understanding self-report Multidimensional Attitudes Scale Toward People with Disabilities: An exploratory analysis. *Rehabilitation Psychology*, 62(2), 110. DOI: 10.1037/rep0000138
- Mai, N. N., Takahashi, Y., & Oo, M. M. (2020). Testing the Effectiveness of Transfer Interventions Using Solomon Four-Group Designs. *Education Sciences*, 10(4), 92. DOI: 10.3390/educsci10040092
- McGahee, T. W., & Tinggen, M. S. (2009). The use of the Solomon four-group design in nursing research. *Southern Online Journal of Nursing Research*, 9(1), 77-84.
- McManus, J. L., Feyes, K. J., & Saucier, D. A. (2011). Contact and knowledge as predictors of attitudes toward individuals with intellectual disabilities. *Journal of Social and Personal Relationships*, 28(5), 579-590. DOI: 10.1177/0265407510385494

- Mecséri, J. (2021). Mit tehet egy nagyvállalat a fogyatékossgal élő személyek integrációja érdekében? In: Perlusz, A., Cserti-Szauer, Cs., Sándor, A. (Eds.) *Fogyatékos emberek a 21. századi magyar társadalomban*. ELTE Bárczi Gusztáv Gyógypedagógiai Kar.
- Mikola, O., I. (2017). *A Fogyatékossgal Élő Személyek Jogvédelme A Fogyatékosjogi Ensz-Egyezményben*. Pázmány Péter Katolikus Egyetem doktori repozitórium.
- Murányi, I. (1999). *Identitás és előítélet*. Budapest, Új Mandátum Könyvkiadó. ISBN 97896391-582832006
- Murfitt, K. F. (2006). *Attitude change in employment of people who have a disability*. Deakin University Library. DOI: 10.9721/b.98172
- Navarro, M. A., & Siegel, J. T. (2018). *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*. Thousand Oaks, SAGE Publications, Inc.
- Sánchez, M. T., Chacón-López, H., Caurcel Cara, M. J., & Valenzuela Zambrano, B. (2021). Attitudes towards persons with disabilities by educational science students: Importance of contact, its frequency and the type of disability. *International Journal of Disability, Development and Education*, 68(5), 617-626. DOI: 10.1080/1034912X.2020.1716960
- Shihusa, H., & Keraro, F. N. (2009). Using advance organizers to enhance students' motivation in learning biology. *Eurasia Journal of Mathematics, Science and Technology Education*, 5(4), 413-420. DOI: 10.12973/ejmste/75290
- Stevens, L. F., Getachew, M. A., Perrin, P. B., Rivera, D., Olivera Plaza, S. L., & Arango-Lasprilla, J. C. (2013). Factor analysis of the Spanish Multidimensional Attitudes Scale Toward Persons with Disabilities. *Rehabilitation psychology*, 58(4), 396. DOI: 10.1037/a0034064
- Symeonidou, S. & Loizou, E. (2018) Disability studies as a framework to design disability awareness programs: no need for 'magic' to facilitate children's understanding, *Disability & Society*, 33(8), 1234-1258. DOI: 10.1080/09687599.2018.1488677
- Tan B. S., Wilson E., Campain R., Murfitt K., & Hagiliassis N. (2019). Understanding negative attitudes toward disability to foster social inclusion: An Australian case study. In: Halder S. & Argyropoulos V. (Eds.) *Inclusion, Equity and Access for Individuals with Disabilities. Insights from educators across the world* (41-65). Singapore, Palgrave Macmillan.
- Varga, A. (2015). *Az inklúzió szemlélete és gyakorlata*. Pécsi Tudományegyetem Bölcsészettudományi Kar Neveléstudományi Intézet, Pécs.
- Vilchinsky, N., Werner, S., & Findler, L. (2010). Gender and attitudes toward people using wheelchairs: A multidimensional perspective. *Rehabilitation Counseling Bulletin*, 53(3), 163-174. DOI: 10.1177/0034355209361207
- Wöhrle, J., Franke, S., & Kissgen, R. (2018). The German Multidimensional Attitude Scale Toward Persons With Disabilities (G-MAS): A factor analytical study among high-school students. *Rehabil Psychol*. 63(1), 83-91. DOI: 10.1037/rep0000170
- Yuker, H. E., Block, J. R., & Young, J. H. (1970). *The measurement of attitudes towards disabled persons scale*. Albertson, NY: Ina Mend Institution.

PUBLICATIONS

Dukic, M. (2021). A Solomon-féle négycsoportos kísérleti elrendezés kipróbálása egy szemléletformáló iskolai program hatásának vizsgálata során. In *Intézményi ÚNKP konferencia* (p. 97).

Dukic, M. (2021). Inklúzió, avagy a diverzitás iránti elkötelezettség. In *Fogyatékos emberek a 21. századi magyar társadalomban* (pp. 101–109).

Dukic, M., & Mecseri, J. (2018). The High 5! disability awareness program and its impact on its participants. In *6th IRI International Educational Conference* (p. 11).

Dukic, M., & Mecseri, J. (2019). The High 5! disability awareness program and its impact on its participants. *Opus et Educatio*, 6(4), 490-501. <https://doi.org/10.3311/ope.349>

Dukic, M., & Perlusz, A. (2019). Az „Adj egy ötöst!” szemléletformáló iskolai program első tapasztalatai a benne résztvevő szereplők tekintetében. In *Rehabilitáció – életkorok, intézmények, szükségletek és lehetőségek a szolgáltatások hazai rendszerében* (pp. 30–38).

Dukic, M., & Perlusz, A. (2019). Az „Adj egy ötöst!” szemléletformáló iskolai program eredményessége a statisztikai adatok tükrében. In *Neveléstudomány – Horizontok és dialógusok. XIX. Országos Neveléstudományi Konferencia. Absztraktkötet* (p. 38).

Dukic, M., & Perlusz, A. (2023). Fogyatékos személyekkel kapcsolatos szemléletformálás az inkluzív társadalom kialakításának jegyében - egy pilótavizsgálat tapasztalatai. *Gyógypedagógiai szemle: a magyar gyógypedagógusok egyesületének folyóirata*, 51(1), 78–94. <http://doi.org/10.52092/gyosze.2023.1.5>

Perlusz, A., & Dukic, M. (2023). A fogyatékossgal élő személyek elfogadását és munkaerőpiaci elhelyezkedését támogató participatív szemléletformáló program kidolgozásának és piaci környezetben történő alkalmazásának tapasztalatai a kutatási eredmények tükrében. In *9. Fogyatékossgtudományi Konferencia* (pp. 17–18).

Tóth, A. A., Dukic, M., & Détár, A. (2021). Az inkluzív munkahelytől az inkluzív társadalomig. In *A neveléstudomány válaszai a jövő kihívásaira. XXI. Országos Neveléstudományi Konferencia. Program, előadás-összefoglalók* (p. 208).