Artephyletic Activities in the Classroom with Students with Developmental Learning Disabilities and Their Impact on the Social Climate

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Abstract Artefiletics is an effective method aimed at improving the condition of students with developmental learning disabilities, particularly in social and emotional domains. The goal of this study is to verify the effectiveness of artefiletic activities in the context of supporting a positive classroom climate. The authors describe a modified intervention program utilizing the principles of artefiletics within the educational process. A pilot implementation of the program took place in 2024 with secondary school students in the Trnava region. A group of 20 students participated in the intervention. To evaluate the intervention, the "Our Class" questionnaire, designed to measure classroom social climate, was used. Following the implementation of the artefiletic activity program, improvements were observed in the monitored areas, particularly significant among students with special educational needs.

Keywords Social climate. Developmental learning disorders. High schools. Pupils with learning disabilities. Artephyletics. Projecting artephyletic activities.

1. INTRODUCTION

Specific learning disabilities (SLD), also referred to by some authors as developmental learning disorders (DLD), affect approximately 16,000 Slovak children (2–5% of the child population). Therefore, considering the prevalence within the child population, it is clear that this is a significant issue.

These disorders impact a student's ability to interpret what they see and hear, or their ability to integrate information from various parts of the brain. Learning disabilities greatly influence a student's academic performance and also affect classroom climate, as they impact daily interactions and relationships with peers. Some students may experience multiple learning disabilities simultaneously, while others may have only one specific disorder in isolation. This variation requires an individualized approach, as each student is unique and naturally differs in their developmental pace.

In addition to standard special-education procedures and interventions for educating these students, artephiletics can also be utilized as an effective method aimed at improving their skills, particularly in social and emotional areas.

According to Sender, B. (2022), artephiletics uses drawing, painting, and modeling techniques to help students with behavioral disorders learn to solve their own emotional problems, improve their social skills, control their behavior, cope with stress, and increase self-awareness. Bielčíková, K. and Sender, B. (2024), in their theoretical study, have confirmed that artephyletic activities represent an innovative approach to social support and are widely applicable as a way of providing support not only to individuals with DLD, but also to groups or entire communities.

Students with DLD often exhibit greater emotional instability, lower self-confidence, and negative attitudes toward their surroundings. Sender B., Bielčíková K. and Žovinec E. (2024) claim that these students have to exert much more effort, which can alsohave an impact on their psychological well-being. One way to help these students and enhance their self-confidence is to integrate artephiletic activities into their education. Experiencing success and positive emotions through creative artistic expression can support them in multiple problematic areas (see also: Turzák, T., Poláčková, V., Melišeková Dojčanová, A., 2023).

Artistic expression is an invaluable means of communication, especially for those who have difficulty expressing their thoughts verbally (Sender, B, 2023). Several international research studies demonstrate the positive impact of artistic activities in educating this group of students. Most foreign studies view artephiletic activities as complementary to traditional special-education interventions.
Results aligning with our objectives can be found, for instance, in the work of Karimi D. A. and Yazdanpanahi, R. (2024). Their study aimed to examine the effect of an artephiletic program on hostility, shyness, and social skills among students (including those with learning disabilities) at the high school level. The experimental group showed a significant reduction in shyness and considerable improvement in social skills compared to the control group after just eight weeks of intervention. The authors emphasize that artephiletic activities are an effective tool for fostering a positive classroom climate and supporting the inclusion of students with developmental learning disorders.

Similar outcomes are reported by Saunders, E. J., and Saunders, J. A. (2000), who noted improvements in the social domain. Furthermore, Freilich, R., and Shechtman, Z. (2010), in their study, highlighted an important observation: no statistically significant educational differences were recorded between the experimental and

control groups, with both showing similar improvements. However, significant differences between the groups were identified in social and emotional areas.

Numerous similar studies could be cited. Such findings support the relevance of applying artephiletic principles in secondary education, particularly among students with developmental or other learning disorders. Intervention programs using artephiletic activities should particularly aim at fostering so-called soft skills, ideally contributing to improved social climate within the classroom.

1.1 Supportive intervention program using the principles of artephyletics in the teaching process

The aim of the study is to verify the effectiveness of a modified intervention program utilizing artephiletic principles in the educational process at secondary school. The intention is to improve the classroom climate among students with developmental learning disorders. In the following section, we describe the content of the modified intervention program we utilized.

The proposed artephiletic program, with specific areas and activities, was inspired by the work of Slavík, J., Eliášová, S., and Slavíková, V. (2015). The program was also created based on recommendations from international literature, particularly by authors Losinski, M., Hughey, J., and Maag, J. W. (2016), who outlined specific steps and principles for the most effective planning of such activities. During planning, we adhered to the individual steps of the artephiletic intervention activities process and design (modified according to Losinski, M., Hughey, J., Maag, J. W., 2016). For further details, see Turzák, T., Poláčková, V., Melišeková Dojčanová, A. (2023) and Kollárová, D., Melišeková Dojčanová, A, (2024).

We implemented the artephiletic activity intervention program to support classroom climate as a two-hour block once weekly in the first year of secondary school over three months (November 2024 – January 2025). It consisted of three main areas, each comprising several linked activities.

Area: Colors
1st Block - Activation: Students select a hat, cap, or baseball cap provided and put it on their heads. They move around the space and greet each other without speaking—waving, smiling, shaking hands, tipping hats, touching briefly, making eye contact, holding hands, and spinning around (approx. 3-5 min). They then sit in a circle on the floor, taking turns answering the teacher's questions about where they live, if they have their room, and if they share it. After responding, students place their hats in the circle's center. The discussion continues with the question of whether each student could draw their house.

2nd Block - Each student draws their house on a paper (approx. 10 min). The teacher may comment verbally during their work. The primary creative activity involves splitting students into two groups, each working at a table with a large sheet of wrapping paper. Each student pastes their drawn house anywhere on the paper. Students receive a paper cup of tempera paint and a brush, with colors distributed randomly. They use their colors to connect the houses, exploring the paper freely, as if visiting neighbors. Colors may meet, avoid each other, or move freely across the paper. Students work silently for 15 minutes. The activity concludes with relaxation thoughts and reflection—discussing dominant colors, preferences, challenges, and color combinations formed.

Area: Portrait as Metaphor
3rd Block - Portraits are considered within the context of visual art. Portraits select external and internal characteristics that the artist tries to express visually. Here, a general metaphor principle is applied, extending beyond visual art. Students represent their portraits verbally (with one or three words), musically (using instruments or sounds), or physically (through pantomime, facial expressions, and gestures). This targeted approach to portraits enhances mutual understanding and comparing impressions among classmates.

4th Block - Working with oil pastels and paper, students sit in a circle, observe their facial details in a mirror, then draw themselves as they perceive themselves. Subsequently, in small groups, they also draw a literary or movie hero with whom they identify.

Area: Portrait – Organizing Objects into Wholes
5th Block - Students explore self-image and others' perceptions through visual appearance. They transform communicative content into visual metaphor mosaics as portraits. Working individually, students use paper, colorful magazines, flyers, and glue to replace facial features with objects cut from printed materials, visually expressing metaphoric characteristics.

6th Block – Reflective Dialogue: Active mutual communication deepens understanding and fosters creative thinking. Students actively discuss new insights from their experiential processes. Confronting differing opinions helps students recognize their unique experiences, enriching mutual respect. Reflective self-questioning—what they created, how, and motivations behind their creations—promotes deeper self-awareness. Aligning and contrasting individual student experiences are crucial for guiding adults' personal competencies, managing group dynamics, empathetic responses, and feedback-based reflection.

Artephiletics is grounded in experiential learning, focusing on experiences and personal reflections. It is uniquely designed to bring education closer to students' personal experiences, making reflective processes essential.

2. METHODS AND METHODOLOGY OF PILOT TESTING OF THE INTERVENTION PROGRAM

The aim of the research was to conduct a pilot verification of the effectiveness of an intervention program applying the principles of artefiletics within the teaching process. The implemented program focused on supporting the social climate in a classroom of first-year secondary school students with specific learning disabilities (SLD).
In relation to the main research aim, the following research questions were formulated:

- How will secondary school students evaluate classroom satisfaction, conflicts, and peer cohesion before and after the implementation of our intervention?
- What differences in the assessment of the monitored areas will be recorded before and after the implementation of our intervention among students with specific learning disabilities?

Sample
The pilot verification of the intervention program involved 21 first-year secondary school students over a period of 3 months (from November 2024 to January 2025). The intervention was implemented in a classroom with 14 boys and 7 girls. The classroom also included students with learning disabilities, specifically: two boys diagnosed with ADHD (one of whom also had a co-occurring communication disorder and came from a bilingual background –

his father's native language was different from Slovak), one girl with a communication disorder.

The sampling had the character of purposive selection. For the purposes of the pilot research, we deliberately selected a class with a higher proportion of students with special educational needs. Additionally, no prior diagnostics of social relations had been carried out in this class, nor had any interventions focused on supporting the social and classroom climate been implemented before.

Data collection methods, data analysis, and research methodology
The results were obtained by administering the "Our Class" questionnaire (Naša trieda) by Lašek, J. & Mareš, J. (1991), which allows assessment of the classroom social climate based on five dimensions (i.e., five variables). The questionnaire contains 25 items (questions) in total and focuses on the following areas:

Classroom satisfaction – evaluates how students perceive their classroom, their satisfaction level, and overall sense of well-being. (Items: 1, 6, 11, 16, 21)

Classroom conflicts – explores interpersonal issues, frequency and intensity of tensions, disputes, conflicts, fights, and inappropriate behavior in social interactions. (Items: 2, 7, 12, 17, 22)
Classroom competitiveness – examines competitiveness among students, efforts to stand out, and the emotional impact of school failures. (Items: 3, 8, 13, 18, 23)
Academic demands – assesses how students perceive school demands and how difficult they find their studies. (Items: 4, 9, 14, 19, 24)
Student cohesion – investigates friendly and unfriendly relationships among students, as well as the overall level of class cohesion. (Items: 5, 10, 15, 20, 25) (For more details, see Lašek, J., Mareš, J., 1991)
For the purposes of this study, we analyzed and present in the text only the results related to classroom satisfaction, conflicts, and student cohesion. Considering the research aim (to pilot test the effectiveness of the program), the statistical analysis of the data was carried out at a descriptive level only at this stage.

3. RESULTS

Our aim was to examine how secondary school students would evaluate classroom satisfaction, peer conflict, and group cohesion before and after the implementation of our intervention. In the following section, we present the findings obtained through the classroom climate assessment, as described in the previous methodology. The effectiveness of the intervention is illustrated through a series of graphs.

The first domain we monitored was "classroom satisfaction." This was assessed using the research tool through a set of items (questions 1, 6, 11, 16, and 21), which evaluate how students perceive their classroom environment, including their overall sense of satisfaction and well-being.

Initial results indicated the following: In response to item 1, which examined whether students enjoy schoolwork, 12 students responded positively. However, all three students with specific learning disabilities (SLD) stated they did not enjoy schoolwork. On item 6, which explored whether all students are happy in class, 11 students answered positively. Again, students with SLD unanimously stated that not all classmates are happy. On item 11, ten students reported they liked their class. For item 16, which asked whether some students dislike being in the classroom, nine students responded affirmatively. Finally, item 21 explored whether students

perceive humor and fun in the classroom. Fourteen students answered positively, while seven reported they did not notice any humor or playfulness. After the intervention, the results showed marked improvements: Eighteen students reported enjoying schoolwork, suggesting an increase of six positive responses. Only six students still believed some of their classmates were not happy, while the majority perceived a more positive emotional climate. Twenty students reported liking their classroom, and only three felt some students did not enjoy being part of it. Notably, in item 21, 19 students stated they noticed humor and fun in class, compared to only 14 before. The graphical representation clearly demonstrates that, following the implementation of our artefiletic program, improvements were observed across all five items related to classroom satisfaction. Specifically:

- Item 1 (enjoyment of schoolwork): an increase from 12 to 18 points (+6)
- Item 6 (happiness of classmates): an increase of 5 points
- Item 11 (liking the class): an improvement of 10 points
- Item 16 (some students dislike the classroom): improved from 12 to 18 points
- Item 21 (humor and fun in class): increased from 14 to 19 points (+5)

In summary, the post-intervention results indicate a consistent improvement in students' perceptions of classroom satisfaction across all observed indicators. Within just three months, the artefiletic program contributed to creating a more positive and enjoyable classroom climate. This was evidenced by a total improvement of 10 points out of a possible 21 in the overall satisfaction score.

Graph 1: Frequency of Classroom Satisfaction Ratings Before and After the Implemented Intervention Program

Student Satisfaction in the Classroom
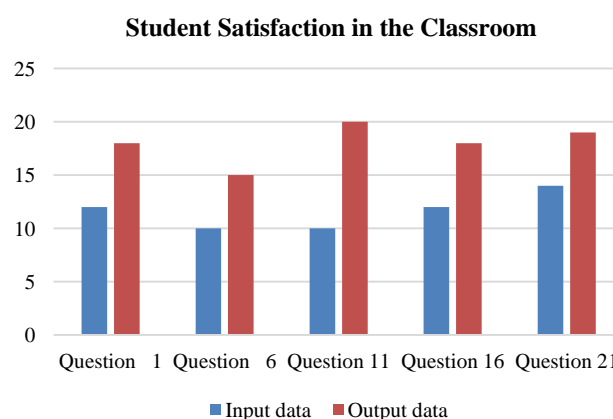
Graph 2: Frequency of Classroom Conflict Ratings Before and After the Implemented Intervention Program

Conflicts in the Classroom
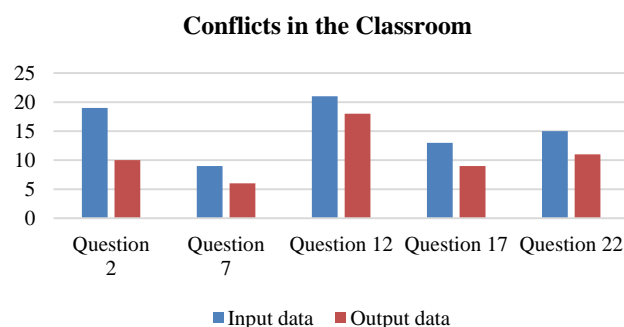
Nineteen students reported that occasional conflicts occur among classmates. Nine students perceived selfish behavior among their peers. All 21 students indicated that some classmates intentionally provoke or annoy others. In response to whether there are students in the class to whom others must adapt, 13 students answered affirmatively. Furthermore, 15 students confirmed the frequent occurrence of arguments.

Graph 3: Frequency of Student Cohesion Ratings Before and After the Implemented Intervention Program

Cohesion in the Classroom

■ Input data ■ Output data
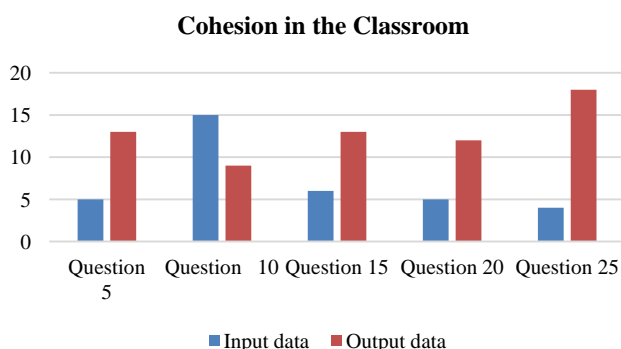
Out of a total of 21 students, only five perceived the class as a group of friends (these five students form a close-knit group that also socializes outside of school). Sixteen students did not perceive the class as a community of friends. Five students reported having close, trusted friendships within the classroom. Similarly, five students evaluated the overall sense of mutual tolerance among classmates positively. Only four students perceived strong mutual friendships among their peers in the classroom.

4. DISCUSSION AND CONCLUSION

In line with the research objectives, we conducted a separate analysis of frequency tables (in selected areas) for both the pre-test and post-test phases, with a specific focus on students with specific learning disabilities (SLD). Students with SLD (referred to here as Student 1, Student 2, and Student 3) demonstrated negative responses in the pre-test phase on items related to classroom satisfaction. For example, when asked whether they enjoyed schoolwork, all three answered negatively. After implementing our artefiletic intervention program, all three students provided positive responses to the same items in the post-test phase. Similar trends were observed in other areas, suggesting more positive evaluations by students with SLD compared to their typically developing peers following the intervention.

It is evident that artefiletics contributes meaningfully to improving the social climate within the classroom. This method proves to be effective both as a primary intervention and as a complementary approach—for both typically developing students and those with health or learning disadvantages. Our findings indicate that artefiletic activities particularly enhance students' subjective perception of satisfaction in the classroom among those with learning difficulties. In comparison with their peers, these students reported a significantly greater reduction in classroom conflict following the implementation of the program. Beyond this, we also recorded meaningful improvements in the area of perceived student cohesion for learners with special educational needs.

The findings of our pilot study are consistent with several international research studies in this field. Most available studies report significant improvements in students' social and emotional

domains following participation in artefiletic activities, while the impact on academic outcomes tends to be less pronounced.

Lavric and Soponaru (2023) conducted a study analyzing the effects of a structured group-based artefiletic program on empathy, prosocial behavior, and anxiety levels in students with special educational needs, including those with SLD. They found a statistically significant increase in both empathy and prosocial behavior in the experimental group that participated in the program. Artefiletic activities implemented in the school environment can significantly reduce experienced anxiety—particularly in students with SLD—and foster empathy and prosocial behavior. These outcomes directly contribute to a more positive social climate in the classroom.

Similarly, Lim (2014) investigated the effectiveness of a group-based art therapy program aimed at enhancing self-esteem and social skills among adolescents with specific learning disabilities. His findings showed marked improvement in both self-esteem and social competencies after participation in the program. The author emphasized that group-based art therapy and artefiletic interventions serve as effective tools for promoting social inclusion and psychological well-being among adolescents with SLD in school settings.

Several additional studies report comparable results, some of which were discussed in the introductory section of this study.
Study Limitations and Future Directions:
In conclusion, several limitations of the present study should be acknowledged. Despite the relatively long duration of the intervention (one of the strengths of this research), the study would benefit from a larger research sample. Our findings suggest that artefiletic activities should ideally be implemented continuously throughout the entire school year. In this sense, they can also be understood as a preventive tool against deteriorating classroom climate and the development of undesirable social and behavioral problems.

Resources

1. BIELČIKOVÁ, K., SENDER, B. (2024). Artefiletika ako konštrukt efektívnej sociálnej podpory žiakov s vývinovými poruchami učenia na stredných školách. In *Pedagogica actualis XV. Podpora a inklúzia vo vzdelávaní ii.* Trnava. ISBN 978-80-572-0441-1
2. FREILICH, R., SHECHTMAN, Z. 2010. The contribution of art therapy to the social, emotional, and academic adjustment of children with learning disabilities. In: The Arts in psychotherapy, vol. 37., no. 2, pp. 97-105
3. KARIMI, D, A., YAZDANPANAHI, R. 2024. The Impact of Art Therapy on Shyness and Social Skills in Students. In Journal of Adolescent and Youth Psychological Studies, vol. 5, no. 2, pp. 41–47. https://doi.org/10.61838/kman.jayps.5.2.5
4. KOLLÁROVÁ, D., MELIŠEKOVÁ DOJČANOVÁ, A. (2024). Aktivizujúce metódy vo vyučovaní ako podpora komunikačných zručností žiakov. Hlohovec: OZ AVČ, 72 s., ISBN 978-80-570-5945-5.
5. LAŠEK, J.; MAREŠ, J., (1991). Jak změřit sociální klima třídy? Pedagogická revue, roč. 43, č. 6, s. 401-409.
6. LAVRIC, M., SOPONARU, C. 2023. Art Therapy and Social Emotional Development in Students with Special Educational Needs: Effects on Anxiety, Empathy, and Prosocial Behaviour. In *Revista Românească pentru Educaţie Multidimensională,* vol., no. 1, pp. 606–621. https://doi.org/10.18662/rrem/15.1/714
7. LIM, H. H. 2014. An Effect of Group Art Therapy on Adolescents' with Learning Disabilities-Focusing on

Improvement of Self-esteem and Sociability. *Journal of Korean Clinical Health Science*, *2*(4), 231-238.

8. LOSINSKI, M., HUGHEY, J., MAAG, J. W. 2016. Therapeutic art: Integrating the visual arts into programming for students with emotional and behavioral disorders. In: Beyond Behavior., vol. 25, no. 1, pp. 27-34.

9. SAUNDERS, E. J., SAUNDERS, J. A. 2000. Evaluating the effectiveness of art therapy through a quantitative, outcomes-focused study. The Arts in Psychotherapy, 2(27), 99-106.

10. SENDER, B., BIELCIKOVA, K., & ZOVINEC, E. (2024). Artephyletics As A Construct Of Social-Psychological Support For Students With Learning Disabilities. In *Inted2024 Proceedings* pp. 3570-3576. doi: 10.21125/inted.2024.0948

11. SENDER, B. (2023). Arteterapeutické šablóny pre deti. Trenčín. ISBN 978-80-974490-0-1.

12. SENDER, B. (2022). Artefiletika ako forma podpory žiakov s poruchami správania. In Podpora inkluzívneho vzdelávania na Slovensku av zahraničí. Prešov. ISBN 978-80-555-2995-0

13. SLAVÍK, J. 2015. Artefiletika – příležitost pro expresi v dialogu teorie a praxe. In: *Kultura, umění a výchova.* [online]. 26.3. 2015 [cit. 2019-04-04]. Olomouc: Univerzita Palackého v Olomouci, č. 3. ISSN 2336-1824. Dostupný z: http://www.ku v.upol.cz/index.php?seo_url=aktualni-cislo&casopis=8&clane k=92.

14. SLAVÍKOVÁ, V., SLAVÍK, J., ELIÁŠOVÁ, S. (2015). Dívej se, tvoř a povídej! Vydavateľstvo Portál, 200 s., ISBN 9788026215578

15. TURZÁK, T., POLÁČKOVÁ, V., MELIŠEKOVÁ DOJČANOVÁ, A., (2023) *Prínos arteterapie a artefiletiky u žiakov s vývinovými poruchami učenia*, In. GRANT journal. - ISSN 1805-062X, Roč. 12, č. 2 (2023), s. 42-48.