## HippArTherapy upgraded

(HAT-up)

# Handbook for development methodology of disabled young people

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#### Introduction

The development of young people with disabilities increasingly requires a complex, interdisciplinary approach that goes beyond traditional educational and therapeutic frameworks. The arts, handicrafts, music, movement-based activities and nature-related programs all contribute to the development of cognitive, emotional, social and motor functions, while also fostering self-expression, self-esteem and the strengthening of social relationships (Karkou & Sanderson, 2006).

The aim of the present project, carried out in cooperation between three countries – Hungary, Serbia and Romania – is to create a practical handbook that presents interactive methods and activities supporting the development of young people with disabilities. The target group includes young people diagnosed with autism spectrum disorder, Down syndrome, and other intellectual or mental difficulties. The activities applied in the project – such as painting, ceramics, sewing, music, cooking and equine-assisted therapy – contribute to the physical, emotional and social well-being of the participants in multiple ways.

## 1. Characteristics of the Target Group

## Autism Spectrum Disorder

Autism spectrum disorder (ASD) is a neurodevelopmental condition characterised by persistent difficulties in social communication and interaction, as well as restricted, repetitive patterns of behaviour and interests (American Psychiatric Association, 2013). Individuals with autism often struggle with expressing and interpreting emotions, have difficulties with non-verbal communication, and may show heightened or reduced sensitivity to sensory input (Baron-Cohen et al., 2011).

Visual and auditory arts – particularly painting, music and crafts – provide a safe and structured framework in which young people can express their inner experiences without relying on verbal communication (Evans & Dubowski, 2001). Artistic activities can reduce anxiety, support emotional self-regulation and improve fine motor coordination, which forms the basis of literacy and other learning skills (Martin, 2009).

#### Down Syndrome

Down syndrome is a genetic condition caused by the triplication of chromosome 21, typically resulting in cognitive, motor and speech-language development difficulties (Roizen & Patterson, 2003). Learning in individuals with Down syndrome is often more effective via visual channels, which makes activities such as painting, pottery or other hands-on tasks particularly beneficial (Wishart, 2001).

Music- and movement-based interventions (e.g., equine vaulting) support balance, body awareness and rhythm perception, while also enhancing social skills and emotional expression (Bertoli et al., 2011). Group-based activities – such as shared cooking or sewing – strengthen cooperation, a sense of belonging and self-esteem (Fidler, Most & Guiberson, 2005).

#### Young People with Learning Difficulties and Intellectual Disabilities

One of the primary target groups of the handbook includes young people with learning difficulties as well as those with intellectual disabilities. Although the two categories overlap, it is professionally important to distinguish them, particularly in relation to support needs (AAIDD, 2010).

## **Young People with Learning Difficulties**

Young people with learning difficulties generally show below-average cognitive performance, but do not meet diagnostic criteria for intellectual disability. Their difficulties are most evident in academic learning contexts, such as reading comprehension, numeracy or information processing (Mesterházi, 2006). Their development is slower but, with appropriate pedagogical and methodological support, both autonomy and adaptive skills can improve significantly (Csányi, 2015).

## **Young People with Intellectual Disabilities**

Intellectual disability involves a persistent and significant limitation in intellectual functioning (IQ ≈ below 70) and adaptive behaviour, affecting learning, everyday life, social participation and independence (AAIDD, 2010; Schalock, Verdugo & Gomez, 2002). Developmental support focuses on practical life skills, communication and social participation, preferably in structured, visually supported environments (Mesterházi, 2006).

## **Shared Characteristics and Developmental Principles**

For both groups, experiential, activity-based, visual and multisensory methods are particularly effective, as verbal explanation alone is insufficient (Csányi, 2015). Progress is facilitated by an emotionally safe climate, predictable structure and positive reinforcement. The focus of development shifts from deficits towards strengths, competence building and participation (Schalock et al., 2002).

The aim is not only skill development, but the enhancement of autonomy, quality of life and social inclusion – through individually tailored support.

#### Young People with Other Mental Health Difficulties

The project also involves young people experiencing depression, anxiety, ADHD or other psychological challenges. Creative and movement-based therapeutic methods effectively reduce stress, enhance self-reflection and improve emotion regulation within this population as well (Malchiodi, 2012).

During creative activities, dopamine and serotonin levels increase in the brain, which leads to improved mood, motivation and a stronger sense of internal control (Stuckey & Nobel, 2010). Music, collective creation and interaction with animals are particularly effective for strengthening emotional stability and social connections (Marcus, 2013).

## 2. Developmental Benefits of Arts- and Movement-Based Activities

#### Painting and Handicrafts

Activities such as painting, ceramics and sewing are fine motor tasks that support the development of hand—eye coordination, sustained attention and problem-solving skills (Czamanski-Cohen & Weihs, 2016). The art therapeutic process provides an opportunity for non-verbal emotional expression, reduces internal tension and increases self-confidence (Kramer, 2000).

For young people with Down syndrome or autism, experiencing colours, textures and shapes effectively supports sensory integration, which forms the foundation of daily functioning (Ayres, 2005).

#### Music

Music therapy uses rhythm, melody and harmony to enhance emotional expression, self-regulation and social attention skills (Gold et al., 2009). Listening to music or playing music together has been shown to reduce cortisol levels, increase endorphins and promote emotional attunement among group members (Koelsch, 2014).

Music therapy is particularly effective for young people on the autism spectrum, as musical interaction provides a structured yet flexible framework for practising communication and social reciprocity (Geretsegger et al., 2014).

## Cooking and Baking

Cooking together not only develops manual and practical skills but also fosters independence, planning ability and a sense of responsibility. During kitchen tasks, young people experience cooperation, success and the tangible reward of their work – the finished food (Hart & Risley, 1995).

The integration of smell, taste and touch also plays a key role in sensory processing, which is often challenging for many young people with disabilities (Schaaf et al., 2011).

#### Equine Exercises and Hippotherapy

Hippotherapy and equine exercises are rhythmic movement-based interventions that improve balance, posture, muscle tone and self-confidence. The horse's movement closely resembles the natural pattern of human gait, which enhances motor coordination during riding (Sterba, 2007).

Interaction with animals promotes empathy, responsibility and a sense of safety – factors of particular importance for young people with anxiety or low self-esteem (Lentini & Knox, 2015).

## 3. Expected Impact of the Project

The activities applied in the project provide multidimensional developmental benefits:

- Cognitive level improvement in attention, memory, executive functions and problemsolving
- **Emotional level** reduced anxiety, increased self-esteem and sense of internal control
- Social level enhanced cooperation, empathy and communication skills

In addition, the handbook offers parents, teachers and therapists practical tools for implementing structured yet experience-based developmental methods in everyday practice.

## **Participating Organizations**

## Hangolda Association (Szarvaskő, Hungary)

The Association's core mission is the musical and artistic development of children and young people, alongside the preservation and transmission of Hungarian cultural and folk-music heritage. Over the years, our activities have expanded beyond arts and cultural education to include developmental and therapeutic elements. We consider it essential to offer opportunities from early childhood for musical and creative self-expression and for the experience of community, so that young people can discover the joy of creating, strengthen their self-confidence, and feel a sense of belonging. We place particular emphasis on familiarizing families with Hungary's folk and musical traditions, involving them in shared singing and dance, sustaining living traditions, and supporting training and continuing education in the arts and developmental pedagogy. Organizing parent communities is also central to our work: we strive to provide a supportive backdrop for families in child-rearing, health promotion, environmental awareness and everyday intentional living.

In recent years, activities targeting the development of young people with disabilities have become increasingly prominent. Our work has gradually centered on arts- and music-therapy methods and experience-based approaches that effectively foster personality development, emotional stability and social skills. We deliver music therapy regularly in health and social-care institutions—including neonatal intensive care and pediatric wards—where music supports early bonding and a sense of calm and safety. We have, for many years, worked with deaf and hard-of-hearing children, autistic youth, young people with Down syndrome and others with mental health difficulties. Some sessions take place in partner institutions; others are hosted at our own venues, where participants can engage in equine-assisted, music- and art-therapeutic sessions.

A key strand of our activity is to disseminate experiential forms of music education. We give interactive concerts in schools and kindergardens to let children and youth experience the joy of making music together and the music's soothing, connecting power. We cooperate closely with local day centers and services for young people with disabilities so that our programs are embedded in community life. Our closest partnership is with the Eger Autism Foundation, whose clients we have accompanied for years. Although the Foundation primarily serves autistic young people, it also works with those with other conditions (e.g., Asperger's, Down syndrome). Joint programs ensure meaningful developmental experiences through music, movement and interaction with animals.

Our international footprint includes long-standing participation in Erasmus+ and other European collaborations focusing on mental health, inclusion, self-knowledge and resilience. We work with both disabled and non-disabled youth, prioritizing wide access to mental-health themes across school-age and young-adult populations. We use the arts, music, movement, and nature- and animal-based experiences as tools through which participants can discover self-expression, cooperation and connection.

In short, the Association's operations are built on the values of art, music, community and development. Our goal is for every young person—regardless of ability—to experience the joy of creation and music, the strengthening of self-confidence, and the supportive power of shared experiences. We are guided by the conviction that art is a universal language through which all people can express themselves, connect with others and find their place in community.

## Együtt Veled - Értük (Together With You – For Them) Association (Magyarkanizsa, Serbia)

The Együtt Veled - Értük Association for the Protection and Support of People with Intellectual and Physical Disabilities in Magyarkanizsa has been working for more than two decades for people with disabilities and their families. Founded in 2002, the Association set out to unite people with disabilities and their relatives within the municipality, to support the enforcement of their rights, improve living conditions and promote social inclusion. Since its establishment, the organization has consistently pursued the vision that people with disabilities should live fuller lives, participate as valued, active community members, and—according to their abilities—enter employment and social life.

From the outset, the Association has sought not only to provide support and care but also to create real opportunities for young people and adults to prepare for independent living. This idea led to the establishment of a day center that not only offers meaningful daytime activities and relieves families but also motivates participants toward value-creating work. The "Fénybárka" workshop began with the support of the local Red Cross, special-education teachers, volunteers and parents, and quickly became a key community and developmental hub in the region. In the early years, the Association did not yet have a permanent venue; in 2007, however, with support from Serbia's Ministry of Labor, Employment, Veteran and Social Policy and a Dutch grant, it acquired a greenhouse that enabled the start of horticultural activities. Supported by the municipality, the Association secured a permanent site where it could erect the greenhouse and operate its workshop.

A major milestone came in 2008–2009, when the Association and the Municipality jointly won ministerial funding to renovate, expand and equip the day-center building and to establish a municipal Social Protection Service Center. Since the Center's launch in June 2009, day services for people with disabilities have operated within this public institution, while the Association has continued to bolster its work by running workshops financed through grants, organizing events and engaging in advocacy. Service users include people with mild, moderate and multiple disabilities. On weekdays, development and creative programs run from morning to afternoon; participants can choose among several workshops and engage according to their abilities and interests.

Workshop activities are a cornerstone of development. From simpler crafts to more complex, precision-based processes, each task builds concentration, perseverance and manual dexterity. In the pottery, sewing, weaving, papermaking and horticulture workshops, participants progressively acquire knowledge and routines essential for work and independent living. Sessions strengthen finemotor skills, attention and responsibility while supporting the growth of self-confidence and autonomy. Several workshops also operate as social enterprises, enabling the sale of finished products so participants can experience the real value and social usefulness of their work.

A rich array of socio-cultural and artistic programs—such as drama groups, theater games, a color-notation ensemble and a poetry circle—complements the workshops. These activities foster self-expression, creativity, cooperation, mutual acceptance and self-knowledge. Public performances provide genuine success experiences that boost self-confidence and social acceptance. The team regularly takes part in local and regional cultural, sports and community events where people with disabilities appear alongside the general population, furthering inclusion and public awareness.

Professionalism and collaboration are pillars of the Association's operation. Staff are qualified, experienced professionals skilled in both developmental work and the design and delivery of grantfunded projects. The Association cooperates closely with parents, local government and various national and international organizations to fulfill its advocacy role and sustainably improve the quality of life of people with disabilities.

Over more than two decades, the Association has shown that perseverance, cooperation and community can transform lives. It not only provides development and support but also creates value and sets an example: with opportunity and acceptance, people with disabilities can live independent, full and meaningful lives.

## KULCS Association of Social Educators (Târgu Mureş, Romania)

Founded in 2007, the KULCS Association of Social Educators has become a leading voice in promoting social pedagogy and the helping professions in Romania. As a non-profit civil association, it works to enhance the social recognition of social educators, disseminate social-pedagogical perspectives and methods, and support children, young people and their families within educational and care processes. Its work builds bridges between families, schools and professionals, fostering shared responsibility and cooperation for children's harmonious development.

The Association's primary goal is to improve communication and relationships among parents, children and teachers, and to support the educational and social inclusion of learners with special educational needs. To this end, it regularly organizes trainings, seminars and exchange programs for teachers, social practitioners and parents, introducing new methods, alternative pedagogies and therapeutic tools. Awareness-raising and the promotion of social acceptance are central: the aim is to reduce prejudice and cultivate more open, empathic attitudes toward people with disabilities.

KULCS places strong emphasis on supporting and involving parents. It runs a support group for parents of children with special needs, offering regular meetings and peer exchange. These spaces help families avoid isolation, strengthen community bonds and expand practical strategies for everyday challenges. The Association also provides professional consultation for teachers who have students with disabilities or learning difficulties in their classes, supporting the implementation of inclusive education.

KULCS operates developmental and rehabilitation programs for children with diverse disabilities (including autism, Down syndrome and ADHD). These include psychodrama sessions, cooking and baking groups, and individualized interventions aimed at everyday living skills and independence. The cooking group, for example, has proven particularly successful: young people with Down syndrome began applying newly learned skills at home, reinforcing the belief among professionals that—with appropriate support—these youths can lead far more independent lives.

In KULCS's experience, the greatest barrier is often not the young people's capacity but the beliefs held by their environment: parents may not trust that their children can make decisions, work or assume responsibility. The programs therefore target parental attitudes as well—creating opportunities to experience trust, belief and autonomy in action.

The Association also employs drama pedagogy, experiential education and adventure therapy. Through experiential learning, participants strengthen self-knowledge, social skills and emotional resilience. These approaches enable young people to take an active role in their own development and to learn cooperation, problem-solving and accountability in real-life contexts.

KULCS primarily serves 14–20-year-old young people with disabilities, many of whom face social and economic disadvantage. The organization works in parallel with their teachers and parents because meaningful change endures only when school and family environments understand and support new methods. Participation in international projects is a significant opportunity: young people gain new experiences, try more independent roles and acquire skills that support everyday functioning and successful social inclusion.

In essence, the KULCS Association operates on knowledge, empathy and community responsibility. With more than a decade and a half of professional practice and international cooperation, it has demonstrated that social-pedagogical thinking, awareness-raising and experiential learning can bridge differences in ability. Its work is rooted in the belief that every person can learn, grow and connect—given the trust, space and support they need.

## **Project Summary**

Supporting the development and social inclusion of young people with disabilities is not only a therapeutic task but a human, communal and cultural responsibility. This trilateral project—Hungary, Serbia and Romania—embodies that view: leveraging the power of art, music, movement and human—animal interaction to build bridges among people with different abilities. The partner organizations share a common observation: many young people with disabilities struggle to find spaces where they can succeed, show creativity and truly belong. Conventional programs can be overly rigid and insufficiently experiential. We therefore place shared creation and the arts at the center—as a universal language understood regardless of whether one communicates through speech, movement or gaze.

The following sections present practices and activities developed collaboratively by professionals and young people across the three countries. Each is a tested, adaptable method drawing on music therapy, art therapy, movement and equine-assisted methods, and experiential education. These tasks jointly foster creativity, attention, motor coordination and emotional awareness, while

enabling participants to connect, experience joy and achieve success. Importantly, these activities are not intended solely for therapists; teachers, youth workers, aides and volunteers can use them successfully if they approach them with openness to play, connection and the joy of shared creation. Every practice can—and should—be tailored to the group's composition, age and ability level, with the guiding principle that everyone can find a meaningful role and contribute value.

This chapter is thus more than a methodological compendium; it is an invitation to shared experience—an invitation to see and feel each other anew through the arts, music, movement and the human—animal bond.

## **Description of Methods**

## The developmental power of music therapy and visual art therapy

The therapeutic application of the arts—whether music, singing, painting, clay work, or sewing—is not only a means of creative self-expression but also a developmental, healing process.

In art therapies, the emphasis is not on the product but on the experience of creation: on how the participant connects to themselves, to others, and to the surrounding world (Malchiodi, 2012).

Musical and visual activities activate both hemispheres of the brain and stimulate communication between cognitive, emotional, and motor functions (Karkou & Sanderson, 2006).

#### General effects of music therapy

Music is the most ancient form of communication, conveying emotions even without words.

The goal of music therapy is to develop self-expression, self-regulation, social skills, and nervous system balance with the help of sound, rhythm, melody, and harmony (Bruscia, 2014).

## **Neural and cognitive effects**



- •Rhythm supports neural synchronization, which improves attention, concentration, and motor coordination (Thaut, 2005).
- •Listening to music and singing activate the brain's language centers, thus potentially developing speech skills, especially in children with Down syndrome and autism (Wan et al., 2010).
- •Rhythmic singing supports the development of memory and sequence recognition.

Source: Self edited figure (AI generated)

## **Emotional and psychological effects**

 Music affects our emotion-processing system and helps reduce anxiety and stress (Koelsch, 2014).

- During group music-making and singing, the body's oxytocin level rises, which is the hormone of bonding and trust (Tarr et al., 2015).
- Singing has breathing-regulating and tension-relieving effects—therefore it is particularly useful for anxious young people with low self-confidence.

## Social and communication development

- Music is a structured yet flexible communication channel that allows those with difficulties in speech to connect with others.
- In young people on the autism spectrum, music therapy increases attentional focus, eye contact, and social initiation (Geretsegger et al., 2014).
- Making music together, especially singing in a choir, strengthens group cohesion and the experience of "breathing together"—both literally and figuratively.

#### 2. The benefits of choral singing and color-notation singing

Choral singing is particularly developmental because it simultaneously requires attention, concentration, emotional attunement, and social cooperation.

Color-notation singing—where sounds are marked with colors—also supports learning visually and provides great help for young people with intellectual disabilities, autism, or reading difficulties.

Source: Self-edited figure (AI-generated).

## **Developmental advantages:**

- Pairing colors and sounds supports visual—auditory integration and cooperation between the cerebral hemispheres.
- Color notation is motivating and easy to understand, reducing performance anxiety.
- During singing, breathing control, articulation, sense of rhythm, and attention develop.
- The communal experience of choral singing reduces isolation and increases self-confidence and social competence.

• Vocalization and resonance help release inner tension—this is particularly effective in anxious or impulsive young people (Clift & Hancox, 2010).

#### 3. The general effects of visual art therapy

In visual art therapy (art therapy), creation—painting, clay work, sewing, collage—provides an opportunity for the nonverbal expression and processing of emotions (Kramer, 2000).

The artistic process is not only symbolic, but also an integrating experience on bodily, sensory, and emotional levels.

## **Emotional and self-knowledge benefits**

- Colors, shapes, and textures help in recognizing and expressing emotions.
- The experience of control and choice during creation increases self-confidence and a sense of competence (Malchiodi, 2012).
- Visual self-expression offers a channel for those who have difficulty communicating verbally—for example, young people with autism (Evans & Dubowski, 2001).

## Cognitive and sensory development

- Fine-motor activities (e.g., sewing, clay work) improve hand—eye coordination and attention concentration.
- Shaping clay and other plastic materials develops spatial perception, creativity, and planning.
- Textile work and sewing strengthen perseverance, patience, and tolerance for monotony—which is especially useful for young people with attention disorders and impulsivity.

## Social and therapeutic effects

- Creating together is a safe community space where everyone can feel valuable.
- Group workshop work strengthens cooperation, empathy, and the acceptance of one another.
- "Working with the hands" calms the nervous system through sensation and supports emotional regulation (Stuckey & Nobel, 2010).

#### 4. Developmental effects in the target group

Target Group	Effects of Music Therapy	Effects of Art Therapy
Autism Spectrum Disorder	Increases attention focus, eye contact and social initiation; reduces stereotypies (Geretsegger et al., 2014).	Enables non-verbal expression of emotions; improves sensory integration (Epp, 2008).
Down Syndrome	Improves speech, articulation and breathing; enhances mood and the sense of community.	Craft activities develop fine motor skills and self-confidence.
Mental disorders, anxiety, depression	Music has calming and mood-enhancing effects; increases dopamine and endorphin levels.	Creative expression supports emotional processing, self-reflection, and self-acceptance.

#### 5. Summary

Music and visual art—either separately or combined—are key tools in the development of young people living with disabilities.

These activities provide both structured and free space: opportunities for self-expression, connection, and the experience of success.

Group singing, color-notation choir work, clay work, or sewing all contribute to participants experiencing that

• they are capable of creating something that is beautiful, valuable, and shared.

## The benefits of hippotherapy – Movement, connection, and healing with the help of the horse

Hippotherapy (from the Greek *hippos*, meaning "horse") is a complex developmental and therapeutic method based on the horse's movement, applied for movement development, supporting neural maturation, and for developing psychological and social skills (Debuse & Chandler, 2005).

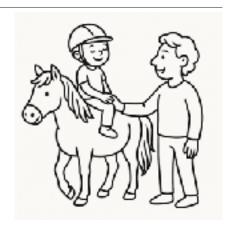
The method is based on the fact that the horse's three-dimensional movement—forward–back, lateral, and up–down—is very similar to human gait; thus, the horse's movement provides a natural pattern for the rider's body and nervous system (Benda et al., 2003).

With every single step, the rider reacts reflexively to the horse's movement, which activates the core stabilizing muscles and helps neural coordination, balance, and body awareness.

#### The complex effect system of hippotherapy

Hippotherapy unites physical, cognitive, emotional, and social developmental effects.

While at the level of movement the focus is on the development of balance and muscle tone, on the psychological level the goal is to strengthen connection, trust, and emotional stability.



Source: Self-edited figure (AI-generated).

## **Physical benefits**

- The horse's rhythmic movement requires continuous muscle activation, thereby improving muscle tone and posture (Sterba, 2007).
- The micromovements while sitting on the horse develop balance, coordination, and motor planning.
- Riding activates cross-lateral movement patterns, which support communication between the cerebral hemispheres, thereby improving learning and speech skills (Ayres, 2005).
- The warmth, movement, and rhythm of the horse's back create sensory integration, which is particularly important in young people on the autism spectrum or with sensory hypersensitivity (Gabriels et al., 2015).

## **Cognitive development**

- Reacting to the horse's movement, observing guidance, and following instructions have attention- and memory-developing effects.
- The rider continuously adapts to the environment, the horse's rhythm, and their own body position, which develops spatial orientation and problem-solving (Debuse & Chandler, 2005).

• Communication with the horse—whether through body language or vocal signals—is practice of nonverbal communication, which is especially valuable for young people living with autism (Bass et al., 2009).

## **Emotional and psychological benefits**

- The relationship with the horse is an emotionally safe and non-judgmental environment in which the young person can experience acceptance and the joy of cooperation (Bachi et al., 2012).
- The horse responds to posture, voice, and mood—thus gives immediate, honest feedback that supports the development of self-knowledge and emotion regulation (Lentini & Knox, 2015).
- Several studies have shown that during hippotherapy cortisol levels, a physiological indicator of stress, decrease, and overall mood and self-esteem improve (Marcus, 2013).
- Physical contact with the animal increases oxytocin production, which is the hormone responsible for bonding and calm (Beetz et al., 2012).

## Social and relational development

- Interaction with the horse teaches trust, patience, and consistency.
- In group hippotherapy sessions, participants learn to pay attention to one another, help each other, wait their turn, and rejoice together in shared success.
- In children with autism spectrum disorder, equine therapy significantly increases social motivation and the frequency of eye contact, and reduces the number of repetitive behaviors (Gabriels et al., 2015; Bass et al., 2009).

## 2. The effect of hippotherapy on the target group

## **Autism spectrum disorder**

• The rhythmic movement of the horse stabilizes neural activity, reduces sensory overload, and supports self-regulation.

- The relationship with the horse strengthens emotional connection and social attention (Gabriels et al., 2015).
- After equine therapy, eye contact, social initiation, and positive emotional expression may improve (Bass et al., 2009).

## **Down syndrome and movement limitations**

- The horse's movement improves core stability, muscle tone, and posture, which is particularly important in children who are often hypotonic (Debuse & Chandler, 2005).
- By developing movement and balance, movement becomes more independent and selfconfidence increases.
- The competence experience during successful riding strengthens self-image and social inclusion (Bertoli et al., 2011).

## Mental difficulties, anxiety, depression

- Interaction with the horse reduces stress hormones and increases endorphin and oxytocin levels, thereby improving mood and emotional balance (Marcus, 2013; Beetz et al., 2012).
- With regular participation in hippotherapy, the sense of self-efficacy increases—that is, the young person experiences: "I am able to influence another living being."
- The flow experience during riding (Csíkszentmihályi, 1990) supports staying in the present and emotional stability.

## 3. Summary

Hippotherapy is not merely movement development but a complex method of neural and emotional integration that acts on the levels of body, mind, and soul.

The horse as a partner holds up a mirror: it provides feedback on the participant's inner state, while with its accepting, reliable presence it creates a safe environment.

For young people with disabilities, this experience is particularly valuable because it provides an opportunity to experience competence, self-confidence, and connection—all in a natural, experience-based environment.

## **Activities**

## Disability Etiquette - A Basic Protocol for Equal Connection

#### Introduction - Principles of Human Dignity and Equal Participation

Societal attitudes, behavioral patterns, and modes of communication toward persons with disabilities determine the extent to which a community regards every individual as a full citizen possessing rights and dignity. Disability etiquette is not a separate rulebook but the practical expression of the universal principles of human dignity and equality. Its essence is to view persons with disabilities not through the lens of limitation, but in their full humanity—with their personality, abilities, and right to make autonomous decisions. The international disability framework—particularly the UN Convention on the Rights of Persons with Disabilities (United Nations, 2006) and the WHO's social model (World Health Organization, 2011)—emphasizes that disability is not an individual problem but a condition arising from the interaction between the person and the environment; society bears responsibility for removing barriers and ensuring equal opportunity. This perspective underpins the present chapter.

Disability etiquette does not diverge from the general principles of human interaction: respect, politeness, empathy, and openness are its foundations. Disability is not a state arising from a person's deficiency but a consequence of barriers in the social and physical environment; therefore, equality and respect for dignity are primary considerations in interactions with persons with disabilities (Csányi, 2015; Shakespeare, 2013). At the same time, it is important to recognize that interactions with persons with disabilities surface social situations that require not only empathy but also awareness and reflective attention. Etiquette is not prescriptive; it is a connection protocol that supports communication, participation, and cooperation in ways mutually acceptable to all parties. The main goal is not to behave "differently," but to avoid condescending behavior rooted in stereotypes, and to consciously focus on the individual rather than on the disability.

## Purpose and Scope of the Chapter

The purpose of this chapter is to facilitate harmonious, dignified, and practical engagement with persons with disabilities in everyday life, in educational and therapeutic settings, and in institutional and community environments alike. This includes a person-centered approach to communication,

respect for self-determination, and support for social participation. Etiquette offers guidance not only to people without disabilities, but also to young people and adults with disabilities—pointing the way toward self-advocacy, active participation in everyday interactions, and shaping relationships—independently according to their abilities, or with the support of a helper when needed.

The methodological basis rests on the insight that communication and social participation of persons with disabilities are closely linked to self-confidence, sense of identity, and the experience of social acceptance. Applying etiquette helps people with disabilities to be active shapers of their life circumstances rather than passive recipients of care or assistance. This approach aligns with resilience research (Masten, 2014), which indicates that social embeddedness and autonomous decision-making opportunities strengthen psychological well-being and self-efficacy.

#### Communication with Human Dignity and Equality

Direct communication—speaking to the person with a disability rather than to their companion—supports the experience of autonomy, reduces feelings of dependency, and fosters psychological safety (Rogers, 2019; Decety & Jackson, 2004). The core principle of communication with persons with disabilities is that we are all equal human beings, defined not by limitations but by our personalities, thoughts, and feelings. In everyday contact, it is therefore essential not to objectify or infantilize the person with a disability, but to speak with them, not about them. Direct communication is not merely a matter of politeness; it is a practical expression of the rights to dignity and self-determination. If a person with a disability arrives with a companion, address the person themselves—they are the subject of the conversation, not the helper or family member. This approach enhances the sense of autonomy, reduces the experience of vulnerability, and reinforces the message that the person with a disability is not an object of care but an active participant in social dialogue.









Source: own photograph

Using natural, everyday expressions—such as "see you," "I've got to run," "I'll hear from you"—creates a communicative environment where disability does not become the defining element of the connection. Research suggests that one of the most important components of inclusive communication is normalization (Wolfensberger, 2011), meaning that persons with disabilities should not be treated as having a special or exceptional status, but—while respecting the specificities of their situation—engaged on the basis of shared human values.

## The Role of Empathy, Patience, and Mutual Respect

Patient and attentive communication is not special treatment; it is a factor that ensures equality in social interaction and contributes to strengthening self-confidence and self-determination (Zrinszky, 2011; Masten, 2014). Interactions with persons with disabilities often require allowing more time for an action, a response, or the expression of a thought. Patience is not a "gracious reaction" to disability but a tool for creating a shared communicative space that signals the other person's presence and thoughts are valuable. In communication with people who are hard of hearing, slow,

articulated speech, visible facial expressions, and eye contact aid comprehension, while a balanced manner of speaking reinforces a sense of trust. One should never pretend to have understood something that one actually hasn't—honest clarification is a sign of equality, not an emphasis on deficit.

Assistive devices (e.g., wheelchairs, canes, crutches) are extensions of a person's body and personal space. Touching or using these without justification constitutes a violation of personal space. Touching a wheelchair is as intrusive as attempting to physically steer a non-disabled person. Social models stress that the protection of dignity underlies every interaction, and this includes maintaining a sense of physical safety (Shakespeare, 2013).

#### The Role of the Physical and Social Environment

Social participation becomes possible when the surrounding environment is accessible and inclusive. Accessibility is not only a question of physical infrastructure but also implies behavioral and attitudinal openness. Respecting designated parking spaces for people with reduced mobility, being courteous in traffic, or offering assistance through gestures—all are elements that support the practical realization of equal opportunities. The adaptability of the social environment directly affects psychological well-being, self-confidence, and social activity of persons with disabilities (Schalock et al., 2002).

## Ethical Principles of Providing Assistance

One of the most important etiquette rules is that help should never be assumed but offered. The goal is not to exercise a "right to help" automatically, but to ensure the possibility of autonomous decision-making. A person with a disability has the right to decline, to determine the form of assistance, or to ask for it to be postponed. Assistance is thus not control, but support for independence. This principle reflects the UN Convention's assertion that persons with disabilities are capable of directing their own lives and that their rights are realized only when they can influence decisions affecting them (United Nations, 2006).

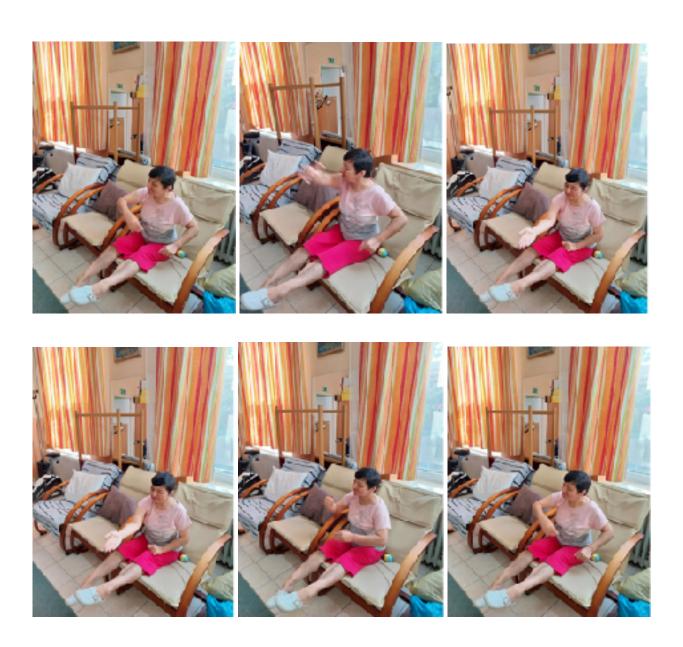
## Putting Communication into Practice – Through Practical Examples

One of the most important principles in communicating with persons with disabilities is recognizing that the mode of initiating contact directly influences self-esteem and the experience of social roles. When someone speaks not to the person with a disability but to their companion, they implicitly signal that the individual is not a fully competent communicative partner or is unable to decide in their own affairs. For example, if a person arrives in a wheelchair and their caregiver is present, the correct address is: "I'm glad you're here—how can I help *you*?"—not "What does *he/she*want?" directed to the companion. Such small differences determine, over the long term, whether a person with a disability participates in community life as a visible citizen or as a passive subject.

Language use likewise plays a key role in social inclusion. Using everyday, natural expressions conveys that disability is not a special status but part of human diversity. Thus there are no "forbidden words" as long as they are not condescending or stigmatizing. Ordinary forms of leave-taking ("see you," "I'll hear from you") reinforce the experience of equality, whereas excessive stiffness or polite-sounding but distancing formulations can be segregating.

## Patience as a Tool of Equal Communication

If a person with a disability expresses thoughts more slowly or has difficulties with speech, practicing patience is not merely politeness; it creates psychological safety. For instance, if someone communicates with a stutter or can only slowly form sentences, interrupting or finishing their sentences reduces their sense of autonomy and competence. The appropriate behavior is to allow time for the thought to be expressed, and if something was not understood, ask the person to repeat: "I want to understand you correctly—could you please say that once more?" This strengthens mutual respect and trust.



Source: own photographs

## **The Ethics of Using Assistive Devices**

Assistive devices—such as wheelchairs or white canes—are extensions of bodily integrity; touching them without permission constitutes a violation of personal space (Bánfalvy, 2011; Oliver, 1996). Touching them without consent is akin to unexpectedly touching or moving a non-disabled person. A wheelchair is not merely a mobility aid; it is an extension of the person's autonomy and personal space. The correct conduct is to engage with the device only when explicitly invited to do so. The same applies to a guide dog: while working, it is not a pet but a tool for independent orientation.

Do **not** touch assistive devices (crutches, cane, wheelchair) unless asked to do so. Do **not** lean on or handle the wheelchair; these are part of the user's personal space.





Source: own photograph

Leave sufficient space for persons with limited mobility and those using assistive devices.





Source: <a href="https://keol.hu/kecskemet-bacs/uj-helyen-dolgozhatnak-a-kecskemeti-mozgaskorlatozottak">https://keol.hu/kecskemet-bacs/uj-helyen-dolgozhatnak-a-kecskemeti-mozgaskorlatozottak</a>



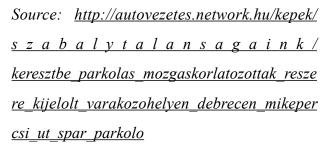


Source: <a href="https://www.invacare.eu.com/patient-lifting-equipment/lifters-hoists-and-slings/isa-plus-patient-lifter">https://www.invacare.eu.com/patient-lifters-hoists-and-slings/isa-plus-patient-lifter</a>

Do not park in spaces designated for vehicles used by people with reduced mobility.











Source: <a href="https://meglepetes.hu/riportok/">https://meglepetes.hu/riportok/</a>
2025/04/06/valtozas-a-kresz-ben-ezek-az-ujparkolasi-es-behajtasi-szabalyokmozgaskorlatozottkent/

Respect a driver with reduced mobility: if you see the permit sticker, increase your following distance, adjust your speed, and pay heightened attention. Allow for certain driving maneuvers to be slower when assistive devices are present in the person's vehicle.





Source: <a href="https://www.autonavigator.hu/cikkek/">https://www.autonavigator.hu/cikkek/</a>
<a href="egy-hibabol-katasztrofa-sorra-tortek-az-autok-az-ml-esen/">https://www.autonavigator.hu/cikkek/</a>
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## The Right Way to Offer Help

The essence of assistance etiquette is that help should be offered, not presumed. For example, if we see someone experiencing difficulty with mobility, an appropriate approach is: "May I help you with something? If yes, what would work best for you?" This simple question not only offers physical help but also acknowledges that the person with a disability is the competent decision-maker regarding their own life. According to international literature (e.g., Barnes & Mercer, 2010), autonomy-supportive communication of this kind contributes to psychological well-being, increased self-confidence, and higher levels of social integration.

When meeting someone, **do not** avoid a handshake with individuals who have an upper-limb amputation, quadriplegia, or who use a prosthesis instead of an arm or hand. You can handshake by touch, with the left hand, or in whatever way is most comfortable for the person with a disability.





Source: own photograph

If you are having a long conversation with a wheelchair user, try to sit down so you can make eye contact.





Source: own photograph

Do not pet a guide dog for a blind or visually impaired person unless you have permission, because the dog is "at work."





Source: https://www.sonline.hu/helyi-eletstilus/2025/04/vakvezeto-kutya-szabalyok

People who are both hard of hearing and completely visually impaired can only communicate if you write letters by touch into the palm of their hand.





Source: own photograph

When traveling on public transport, if you are seated and a person with reduced mobility or a blind/visually impaired person is standing next to you, offer your seat.





Source: <u>https://szegedma.hu/szeged/2025/05/a-latasserultek-egyesulete-es-az-szkt-osszefogott-igy-lehet-akadalymentes-a-szegedi-kozlekedes</u>

While waiting at traffic lights and when crossing the street, make sure your stance/movement does not block access for a person with reduced mobility.





Source: <a href="https://bkk.hu/hirek/2025/09/lezarultak-az-ejszakai-halozat-atalakitasarol-szolo-forumok.15224/">https://bkk.hu/hirek/2025/09/lezarultak-az-ejszakai-halozat-atalakitasarol-szolo-forumok.15224/</a>

Offer your assistance when boarding or alighting from buses, trams, or airplanes.





Source: https://nlc.hu/eletmod/20210510/innomake-okoscipo-vak-gyengenlato-szenzor/

If you are in a situation where a wheelchair user needs help negotiating stairs, do not insist on helping without first asking whether help is needed and how it should be provided.





Source: own photograph

If you are in a situation where a blind or visually impaired person needs help crossing the road, do not insist on helping without first asking whether help is needed and how it should be provided.





Source: <a href="https://www.psychologytoday.com/nz/blog/blindness-visible/202503/what-is-it-like-to-be-a-blind-person">https://www.psychologytoday.com/nz/blog/blindness-visible/202503/what-is-it-like-to-be-a-blind-person</a>

## **Supporting Social Participation**

Involving people with disabilities in community life is not just an opportunity—it is a right. Access to participation—whether for cultural events, transportation, or everyday services—is a basic condition for equal opportunities. When someone offers their seat on a bus to a person with reduced mobility, or holds a door to provide access, it is not merely politeness but the practical realization of social inclusion.

## The Role of Safety and Self-Determination in Social Interactions

Participation of persons with disabilities is often limited not by their abilities but by environmental barriers. These may be physical, communicative, or psychological—for example, overprotection, forcing assistance, or assuming that a person with a disability "cannot decide what's best for them." In contrast, the inclusive approach views safety not as control, but as supporting autonomous decisions. If a situation might be hazardous—e.g., in traffic, movement, or using mobility aids—the correct practice is not to take over a maneuver or decision from the person, but to practice handling the situation together until independent or supported execution becomes safe. Psychological safety (Edmondson, 2018) thus becomes the foundation of social integration: someone who feels safe connects to others with greater confidence, participates more actively in community life, and voices their opinions more readily.

## **Respect for Self-Determination and Identity**

It is crucial to understand that disability is not an illness. Disability is a condition that forms a lasting part of a person's life and, in specific ways, influences social participation. Using the term "patient" is misleading, because it implies that disability is a "treatable deviation" that isolates and excludes. By contrast, the social model holds that disability is not the person's fault, but a consequence of inaccessible social structures, attitudes, and physical environments. People with disabilities are therefore not "patients in need of treatment," but individuals for whom the conditions of equal social participation must be created with consideration for their abilities and needs (Oliver, 1996). A positive experience of identity is closely linked to the degree to which society recognizes persons with disabilities as visible, competent, and valuable members.

In regular interactions, we should therefore not view them as "care recipients" or "in need of help," but as autonomous decision-makers who can build relationships, form opinions, and take part in

shaping community life. In day centers and developmental institutions, it is important that every participant—according to their abilities—be an active shaper of their own programs, connections, and developmental process.

#### A Unified Understanding of Disability

According to international definitions, a person with a disability is someone who has a permanent physical, intellectual, or sensory impairment that affects their entire life, creates a lasting disadvantage in social participation, and requires external support—assistive devices, personal assistance, or a specially designed environment—to compensate. This interpretation does not highlight deficits but the factors that influence equal participation. Using the definition of disability in this way is not only decisive from legal and institutional perspectives but also has psychological significance: it contributes to positive identity formation and reduces stigmatization.

#### Conclusion - Promoting Social Visibility and Active Citizenship

Presenting people with disabilities as visible, active citizens contributes to building an inclusive society in which difference appears as value rather than lack (Schalock et al., 2002; Mezei, 2014). The aim of etiquette is to help persons with disabilities become visible and active citizens—not merely participants but community shapers. Successful social awareness-building is based not on pity or distance, but on mutual respect, empathy, and cooperation. A bit of theoretical knowledge, twice as much sensitivity, and a few simple, consistently applied connection rules are enough to dismantle, in everyday interactions, the walls that separate people with disabilities from the rest of society. Genuine inclusion does not merely create opportunity; it creates shared value: a social environment in which everyone, according to their abilities, can contribute to enriching the community.

# **Conductor Game – The Power of Making Music Together**

#### Short description

Participants sit or stand in a circle and produce sounds, rhythms, or movements (e.g., clapping, snapping, instruments, vocal sounds, simple rhythmic accompaniment).

In the middle stands the "conductor", who directs the others with their body, hands, or facial expressions: indicating when to start, when the music should be louder or softer, faster or slower, or when to stop, switch sounds, or introduce a new instrument.

The conductor "plays" the group with their movements, while the others pay attention, react, and follow the signals. After a few minutes, a new conductor goes into the middle.

#### Developmental goals

# **Cognitive development**

- **Attention and concentration**: the game strengthens focused attention, since participants must continuously watch the conductor's movements.
- **Memory and anticipation**: supports movement and rhythm prediction participants learn to feel tempo changes in advance.
- **Sensorimotor integration**: coordinating sound, movement, and vision (visual–auditory–motor integration) develops neural connections.

### Social and communication skills

- **Development of nonverbal communication**: interpreting and using eye contact, facial expressions, and body language.
- **Empathy and cooperation**: players experience both the leader and follower roles, tuning in to each other.
- **Social attention**: especially useful for young people with autism, as it helps them practice noticing and interpreting social signals in a real situation.

# **Emotional and self-awareness development**

- **Self-expression**: the conductor role allows individual creativity, emotions, and moods to be expressed.
- **Self-confidence:** the participant standing in the middle experiences control and responsibility in a safe environment.
- **Stress relief**: the game is spontaneous, full of laughter and movement, which reduces anxiety and tension.

### **Musical skills**

- Development of rhythm and tempo sense
- Experiencing dynamic differences (forte-piano)
- The experience and structure of group music-making

#### Method and process

# **Preparation:**

- Sitting in a circle, the group does a short warm-up (rhythm tapping, vocal sounds, breathing exercise).
- The signals are agreed on (e.g., raising the hand = louder; lowering the hand = softer; stopping the hand = silence).

# **Game process:**

- The first conductor is the group leader or a more confident participant.
- The conductor directs the others with movements, can slow down or speed up the music, or ask for a new sound.
- After a few minutes, a new conductor steps into the centre.

#### **Reflection:**

• After the game, discussion about what it was like to lead and follow.

- How did it feel to "conduct" the others?
- Was it easy to understand the conductor's signals?

### **Developmental impact of the conductor role**

- The conductor experiences a sense of control, which is especially important for young people who often feel powerless in daily life.
- Develops self-confidence and a sense of responsibility: they conduct the group and receive immediate feedback.
- Supports self-reflection: the conductor sees how others react to them and how they can influence group dynamics.
- Strengthens initiative, leadership skills, and social sensitivity.

# **Developmental experience of the others (the musicians)**

For the others, the main task is active attention and cooperation:

- They learn to interpret and follow visual signals.
- Their patience and adaptability improve: they must adjust to changing tempo and the conductor's style.
- Group cohesion is strengthened, the feeling of "we are making music together".
- Emotional attunement develops empathy and shared rhythm experience which on a neuropsychological level also supports oxytocin release and social bonding (Koelsch, 2014; Porges, 2011).

### Summary of developmental focus areas

Area	Skills Developed	Method / Experience
Cognitive	Attention, memory, sensorimotor integration	Following visual and auditory cues
Social	Communication, cooperation, empathy	Practicing leader–follower roles
Emotional	Self-expression, self-confidence, stress reduction	Conducting roles, spontaneous play
Musical	Sense of rhythm, dynamics, tempo awareness	Musical imitation, tempo changes
Motor	Fine and gross motor coordination	Movement imitation, following tempo changes

#### **Variations**

- With instruments: rhythm instruments, shakers, drums, xylophone, triangle, etc.
- With voice: only body and voice (e.g., "mmm", "aaa", clapping, snapping).
- **With movement**: the conductor gives movements (e.g., hand wave, head tilt), and the others imitate.
- **Thematic version**: e.g., performing seasons, animals, or emotions as "music" ("happy music", "spring music").
- Silent conductor: can only use eye contact and facial expression to direct.

### Reflection questions after the game

- How did it feel to be the conductor?
- Was it easy to understand the conductor's signals?
- What did we learn about each other during the game?
- How were we able to cooperate without words?

#### **Canvas Creation**

(Collective Paint Pouring – Harmony Created Together)



Source: own photograph

# Short description

The group members create a shared artwork on a large sheet or canvas.

The facilitator provides three primary colours (red, yellow, blue), from which each participant mixes their own shade in a small bottle or plastic cup (e.g., watercolour + water, diluted acrylic).

When everyone is ready with their own colour, they pour the paint one by one onto the canvas placed on the floor.

The meeting and blending of the paints create unique, random patterns, which become the symbol of the shared work.

At the end, the group looks at the picture together, interprets it, discusses: what they see in it, what feelings it evokes, what it symbolises for them.

#### Developmental goals

# **Emotional and self-awareness development**

- The common creation safely supports the expression of emotions colours and shapes do not require words.
- The choice of colour can unconsciously reflect current mood, personality, emotional state (Gerber et al., 2018).
- The flowing together of the paints symbolically shows how we affect one another strengthening the experience of connection and acceptance.
- The "success experience" of the shared artwork increases self-esteem and the sense of belonging to the group.

# Cognitive and sensory development

- Colour mixing is a playful learning process: it develops causal thinking and creative problem-solving.
- Observing the movement of the paints activates visual attention and sensory integration (Ayres, 2005).
- Pouring, tilting, moving provides movement coordination and proprioceptive experience, supporting body awareness.

### Social skills

- Common decisions (who pours when, where to pour, how much) develop cooperation and self-regulation.
- The meeting of individual and shared colours teaches how differences can be turned into harmony.
- The reflection after the creation supports empathy and the understanding of others' perspectives.

# **Motor development**

- Using bottles or cups develops fine motor skills, muscle strength, and movement coordination.
- Moving the canvas as a group requires cooperative movement, strengthening sense of rhythm and teamwork.

### Method and process

# **Preparation**

- Prepared canvas/sheet (e.g.,  $1.5 \times 2$  m).
- Primary colours (red, yellow, blue), bottles, water, mixing sticks.
- Ideally outdoors or on a covered surface.
- Relaxing music may be played.

# **Colour mixing**

- Everyone chooses which colour they want to create: "Which colour would express you right now?"
- They mix the primary colours and name their own shade (e.g., "calm green", "fire pink").

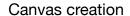
### **Common creation**

- With the facilitator's guidance, they pour the paint one by one or simultaneously onto the canvas.
- They observe how it flows together, what patterns it forms.
- Optional: they may tilt or lift the canvas so the paint flows.

### Reflection

• They look at the image together: what they see, what feelings it evokes.

- The facilitator may guide with questions:
  - What was it like to work together?
  - What do you like most about the painting?
  - Where did your colour appear?
  - What does this image say to you about the group?





# Developmental effects for young people with disabilities

#### **Autism spectrum disorder:**

The structured but predictable process supports the sense of safety; colours and movement provide visual stimuli, strengthening sensory integration (Epp. 2008).

Shared creation supports social connection without forcing verbal communication.

#### For young people with Down syndrome:

Colour mixing and paint pouring develop fine motor skills and colour perception; the common artwork allows success and acceptance, strengthening self-confidence (Fidler et al., 2005).

#### For those with mental health difficulties (anxiety, depression):

The process of pouring gives a "flow" experience – the creator becomes absorbed in the movement and colours.

Accepting the random patterns is practice in letting go of control, reducing anxiety and supporting relaxation (Csíkszentmihályi, 1990; Malchiodi, 2012).

#### **Variations**

Type	Description	Development Focus
Moving	The canvas is held by group members and tilted together—	Cooperation, rhythm,
canvas	patterns are created through coordinated movement.	joint decision-making
Finger- painting version	Paint mixtures are applied by hand, with fingers or sponges, through tactile contact.	Tactile experience, sensory integration
Drip technique	Paint is added gradually using a pipette or sponge.	Fine motor skills, precision
Colour	Paint is poured in circular shapes, then the canvas is moved	Spatial perception,
spiral	slowly.	visual attention
Emotion- colour pairing	Each participant chooses an emotion and mixes a color to represent it ("This color symbolizes calm").	Emotion recognition, symbolic thinking
Reflection	The final artwork is photographed, then revisited the next	Memory, reflective
photo	day for discussion.	thinking

# Reflection questions after the session

- What colour did you mix, and why that one?
- How did you feel when the paints met?
- What do you see in the picture now, and what did you feel while creating it?
- What was it like to work together with the others?

• What does this picture say to you about the group?

# **Horse Rope Pulling**

(Strength, Trust and Cooperation)



Source: own photograph

# Short description

During the exercise, a calm, well-trained horse stands on one side, and on the other side 3–6 young people hold the other end of the rope.

The goal is to try to "move" the horse together — of course, the horse must not be frightened or injured, therefore the activity is always led by a professional (equine therapist, assistant).

The exercise is more symbolic and emotional than a real test of physical strength: the young people experience cooperation, synchrony and the sense of influence, while connecting with a living being who reacts to their movements, energy and behaviour.

### Developmental goals

# Physical and motor development

- Improves posture, balance and muscle tone, especially the core and arm muscles.
- Develops proprioception (awareness of body position) and sensorimotor integration (Ayres, 2005).
- Supports coordinated movement and controlled use of muscle strength not raw force, but directed energy matters.

# Cognitive and attentional development

- Observing the horse's movement and reactions requires focused attention and quick perception.
- The shared goal (moving the horse) promotes problem-solving thinking and strategy building.
- Young people learn that patience and subtle cues can also influence another living being.

# Social and emotional development

- The task is based on trust and cooperation: they attune to each other's movements, strength, and the horse's behaviour.
- Strengthens team spirit, as success can only be achieved together.
- The horse's presence has a calming, stabilising effect its body warmth, movement and reactions help reduce stress and anxiety (Lentini & Knox, 2015).
- Participants experience the effect of their energy: if they are tense, the horse becomes tense; if they are calm, the horse relaxes too.

# Self-awareness and emotional regulation

• The horse gives immediate, non-judgemental feedback to the participant's behaviour – this supports self-reflection and emotional awareness.

- The experience of "I cannot control it by force, but I can work with it" is practice in letting go of control and building trust.
- Develops self-control and impulse regulation interaction with a horse only works if the participant finds inner calm.

#### Method and process

# **Preparation**

- Calm, well-trained horse (therapy horse).
- Rope or long lead rope, held on one end by the horse's handler.
- The young people hold the other end together (always closed shoes, non-slip surface, adult supervision!).

# Introduction and trust-building

- The group pets and gets used to the horse, observes its behaviour.
- They discuss what it means to "be in connection" with the horse and how it reacts to movements.

# **Process of rope pulling**

- The leader stands on one side of the horse, the young people on the other.
- Task: together they try to "invite" the horse to move (not by force, but through rhythm, voice, intention).
- They observe how the horse reacts when it starts to move, when it stops.
- Can be repeated several times, with changing positions (different young people take the front or back of the rope).

#### Reflection

- What helped the horse to move?
- How did you feel when it didn't react?

- What was it like to "work" together with the horse?
- What can we learn from this kind of connection about cooperation between people?

### Developmental effects for the target group

#### **Autism spectrum disorder:**

Physical connection with the horse and the repetitive movement reduce sensory overload and stabilise the nervous system. The horse's predictability provides a sense of safety (Gabriels et al., 2015).

#### Young people with Down syndrome:

The task develops body awareness, balance and muscle control. The success experience strengthens self-confidence and sense of belonging (Bertoli et al., 2011).

#### For those with mental health difficulties:

Interaction with the horse reduces cortisol levels, improves mood and increases the feeling of social trust. The shared effort brings the experience of "we can do it together" (Marcus, 2013).

#### **Variations**

Variation	Description	<b>Development Focus</b>
"Energy- leading" (without force)	Young people try to encourage the horse to move only through posture, breathing, and rhythm.	Body awareness, non-verbal communication
Observing equine responses	Participants respond to the horse's movements: if the horse steps back, they step back; if it steps forward, they do as well.	Empathy, connection
Team rotation	Several groups take turns trying to "invite" the horse to move, then discuss with which group the horse responded.	Cooperation, observation
Light contact guiding	The goal is not movement, but keeping the rope gently taut—like a "connection line."	Emotional regulation, fine-tuning
In a natural environment	Outdoors on grass, among trees, where the horse can move more freely.	Relaxation, sensory experience

### Reflection questions

- What was needed for the horse to move?
- Did you feel that you were working together?
- What was harder: pulling or waiting?
- What did the horse's behaviour "tell" you?
- How is this experience similar to cooperation with people?





# **Therapeutic Horse Gymnastics**

(Developing movement and balance on and off the horse)

# Short description

movement of the horse.

Therapeutic horse gymnastics is one of the most accessible and safest forms of hippotherapy.

Its aim is to develop motor coordination, posture, muscle tone and balance using the rhythmic

The horse's movement is three-dimensional – similar to the pelvic motion experienced while walking – therefore, while sitting on the horse, the muscles responsible for correct posture and gait patterns are reflexively activated.

The exercises are adapted to the abilities of the participants: they can be performed on horseback, on the ground, or with assistive tools (ball, cushion, swing).

### Developmental goals

# Physical and motor development

- Balance and coordination: reacting to the horse's movement develops automatic balance reactions.
- **Muscle tone regulation:** particularly important for hypotonic young people (e.g., in Down syndrome).
- **Cross-lateral movements:** the horse's movement stimulates communication between the brain hemispheres.
- **Fine motor skills and posture:** holding on, arm and trunk work develop body awareness and motor control.

# **Cognitive development**

- Develops attention, motor planning and spatial orientation.
- Supports symmetry perception and recognition of directions and laterality.
- Adjusting to the horse's rhythm develops sense of rhythm and conscious movement control.

# **Emotional and social development**

- Connection with the horse provides safety, acceptance, and emotional stability.
- Reduces anxiety, improves mood and self-confidence (Bachi et al., 2012).
- The shared experience strengthens empathy and mutual awareness.

### Method of development

# **Preparation**

- The young people get to know the horse: touching, observing breathing, observing rhythm.
- Discussion: how to communicate with the horse (voice, body posture, breathing).
- Short warm-up: stretching, arm and shoulder circles, balance exercises on the ground.

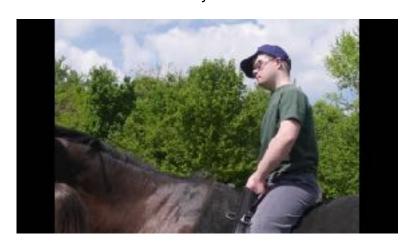
# Horse gymnastics on horseback

Riding can take place on a led horse under safety supervision, or in a still position if the movement is difficult to follow.

The tasks may include:

Exercise	Description	Development Goal
"Tree balance"	Upright posture, arms raised sideways or upward.	Balance, core strengthening
"Greeting the sun"	Raising the hands, then slowly bending forward to touch the horse's neck.	Trunk flexion, coordination
"Star circle"	Rotating hands and arms in different directions.	Cross-lateral movement, attention
"Movement to the music"	Soft music is played by the facilitator, and the rider gently rocks their torso to the rhythm.	Rhythm perception, body awareness, emotional attunement
"Breathing wave"	Deep breathing while observing synchronization with the horse's movements.	Relaxation, nervous system regulation

Horse Gymnastics



# **Ground-based alternatives (off the horse)**

These exercises can be performed by young people with mobility difficulties or those who do not ride, with similar developmental benefits.

Exercise	Tools / Environmen t	Description and Development Goal
"Practicing riding posture"	Chair, large ball, cushion	Upright posture with rhythmic forward–backward rocking, imitating the horse's movement. Develops core stability.
"Following the horse's rhythm"	Metronome, drumbeat	Participants imitate the horse's gait rhythms (walk, trot, canter), optionally with music. Improves rhythm perception and movement coordination.
"Feeling the movement"	Ball or small object in hand	Participants move a ball in a wave-like rhythm while focusing on movement and breathing. Supports sensory integration.
"Balance on the ground"	Soft cushion, balance board	Standing or sitting while maintaining balance, using arms for correction. Develops body awareness and stability.
"Imaginary riding"	Verbal cues, rhythm	The facilitator guides: "Now we walk now we trot" and participants imitate the movements. Enhances motor planning.

Horse Gymnastics at Home



#### **Variations**

Variation	Description	Focus
With colorful ribbons	Participants hold ribbons that wave together with their movements.	Rhythm, visual attention
"Follow the horse's movement"	Participants on the ground imitate the horse's movements with their own bodies.	Empathy, movement observation
With musical accompaniment	Slow, calm music accompanies the movement.	Relaxation, mood improvement
Pair exercise	Two people work together: one as the "rider," one as the "horse" (leader-follower play).	Social attention, trust
In a natural environment	On grass, among trees, outdoors.	Sensory experience, nervous system calmness

### Relaxation riding

One special form of relaxation riding is the method in which the participant lies on their stomach, without a saddle (bareback), on the horse's back, while helpers lead the horse at a walking pace. The horse's three-dimensional, rhythmic gait forces continuous balance adjustment, which automatically activates the core stabilising muscles, while the nervous system receives calming, regulating input (Sterba, 2007).

The prone position is particularly suitable for the combined stimulation of the proprioceptive, tactile and vestibular systems: the horse's warmth, the touch of its coat, and the rhythm and direction of the movement act simultaneously on body awareness and nervous system regulation (Benda, McGibbon & Grant, 2003). The rocking, walking-rhythm movement results in reduced anxiety, deeper breathing, and normalised muscle tone in most clients.

#### Main effects:

- normalisation of muscle tone (both hypotonic and spastic clients),
- core muscle activation without effort,
- deep physical relaxation and anxiety reduction,
- improved body–breath connection,
- support for sensory integration.

The method can be used for:

- young people with intellectual disability,
- individuals on the autism spectrum,
- muscle tone or posture difficulties,
- clients struggling with anxiety or stress,
- difficulties in body awareness.

The horse's movement, at neuromotor level, transmits the pattern of walking to the body even in a lying position, so relaxation and active neural training occur simultaneously (Benda et al., 2003).



Relaxation horse riding

# Developmental benefits for young people with disabilities

- **Autism spectrum disorder:** rhythmic movement and physical contact support nervous system regulation and social attention (Gabriels et al., 2015).
- **Down syndrome:** improves muscle tone, coordination and self-confidence.
- **Mobility-impaired or hypotonic youth:** slow, rhythmic movements strengthen stabilising muscles and improve posture (Debuse & Chandler, 2005).

 Mental health difficulties: movement on horseback increases endorphin production, reduces anxiety and improves mood (Marcus, 2013).

### Reflection questions

- What did it feel like to move with the horse or to the horse's rhythm?
- Was it easier to pay attention to your body or to the horse's movement?
- What changed in you after the activity?
- What emotions did the connection with the horse evoke?
- How did this movement help you feel better in your body?

# Style-Switching Song – "Sing It Differently!"

### Short description

The group chooses a well-known song (e.g. *Tavaszi szél*, *Boci-boci tarka*, *We Will Rock You*, *Let It Be*).

The lyrics and melody are familiar, but the task is to perform it in different musical styles, e.g.:

- 🎩 opera
- 🊵 miners' choir
- 🎸 metal
- 🐉 flamenco

- Marican drumming
- K folk song
- 🏌 disco

The styles can be drawn (e.g. with style cards) or chosen by the group.

The goal is **not musical accuracy**, but creativity, shared laughter, and cooperation.

### Developmental goals

# **Communication and expression**

- Develops verbal and nonverbal communication conscious use of voice, facial expression, and body movement.
- Supports emotional expression and recognition, because each style carries a different mood (e.g. metal = anger, opera = pathos, folk song = calm).
- Strengthens self-expression and finding "my own voice", which is especially important for young people with disabilities who often struggle with verbal self-expression.

# Social skills and cooperation

- The common task strengthens group cohesion and trust.
- Sharing roles (singer, accompanist, conductor, movement leader) teaches responsibility and cooperation.
- Humorous, playful situations increase acceptance, reduce inhibition and anxiety through positive shared experience.

# Cognitive and creative development

- Style-switching requires flexible thinking and problem-solving (how can this song "fit" into the style?).
- Develops rhythm, listening skills and musical awareness.
- Strengthens attention and memory processes, since the song structure is familiar, but placed under new rules.

# **Emotional and psychological benefits**

- Singing increases endorphin and oxytocin production, improving mood and reducing tension (Tarr et al., 2015).
- The playful, "silly" performance style gives permission for spontaneity and the freedom to make mistakes a liberating, confidence-building experience.
- Being able to laugh at oneself strengthens self-acceptance and resilience (Fredrickson, 2001).

### Method and process

# **Preparation**

- Choose a familiar, short song.
- The leader may prepare style cards (e.g. RAP, OPERA, ROCK, METAL, JAZZ, FOLK SONG, DISCO, REGGAE).
- The group divides into 3–4 person teams.

#### **Task**

• Each group draws a style card.

- 5–10 minutes to prepare: the group decides how to perform the song in that style (voice, rhythm, movement, costume, "role").
- Then they perform it for the others.

### Reflection

- How did you feel while singing?
- Which style suited you best?
- What did you learn about each other through the singing?
- What was it like to be "in character"?

#### **Variations**

Variation	Description	<b>Development Focus</b>
Drawing style cards	The group randomly draws a style, increasing the challenge.	Creativity, flexibility
Role-switch performance	One group sings while the other accompanies in pantomime.	Non-verbal expression, empathy
With instrument accompaniment	The song is accompanied by simple rhythm instruments (e.g., shaker, drum).	Sense of rhythm, attention
With musical backdrop	They perform to background music (e.g., metal, opera, rap).	Mood awareness, tempo
Joint closing song	Everyone sings the song together at the end in a "third" style (e.g., gospel).	Belonging, shared experience

# Developmental benefits for the target group

- **Autism spectrum disorder:** switching styles develops flexible thinking and social role play; musical structure provides safety (Geretsegger et al., 2014).
- **Down syndrome:** group singing and rhythmic movement support speech development, articulation, breathing, and build confidence.

- **Mental difficulties, anxiety:** playful, humorous performance reduces tension, increases positive affect and self-acceptance (Fredrickson, 2001).
- **Mobility-impaired youth:** voice use, posture and facial expression allow the experience of movement through sound.

### Reflection questions

- What did it feel like to "transform" the song?
- Why did you perform it that way?
- What was it like to sing in a different style than usual?
- What did you learn about your teammates?
- Which style expressed your mood the best?

# Making an Angel from Clay with a Casting Mold

# Introduction and theoretical background

Craft activities with clay—especially creating figures with casting molds—have complex developmental effects, as they simultaneously activate fine motor skills and sensory integration processes, and they also promote emotion regulation and creative self-expression. According to art therapy theories, touching and shaping clay provides a sensorimotor experience that supports the development of body awareness and helps establish a connection between inner emotional states and outer action (Lusebrink, 2004). For youth with learning difficulties, this kind of bodily experience is particularly important, because during creative activity they can experience competence and control, which has a significant impact on their self-esteem and psychological well-being (Bandura, 1997; Mesterházi, 2006).

The immersion during the activity often reaches the flow state which, according to Csíkszentmihályi's (1997) theory, is an optimal state of functioning where one's attention is fully

directed to the task while intrinsic motivation, concentration, and emotional stability increase. The structured yet creative process supports attentional focus and reduces anxiety, thus creating a safe framework for self-expression. Working with clay not only develops manual skills, but affects the whole personality, fostering resilience and the development of emotional self-regulation (Masten, 2014).

The pedagogical significance of the activity lies in the fact that it is built from structured steps while leaving room for independent action. According to the principles of inclusive pedagogy, ensuring participation and autonomy is fundamentally important for everyone's development (Booth & Ainscow, 2002; Csányi, 2015). During work with clay, young people participate in the task according to their abilities: they work independently or with verbal guidance, while the helper's supportive presence provides safety without taking away the possibility of acting independently. This approach reinforces self-determination, supports the experience of competence, and promotes the development of a positive self-image (Schalock et al., 2002).

#### Aim and developmental impact

The primary goal of the activity is for youth with learning difficulties to take part—according to their own abilities—in an active, creative process that offers opportunities for independent decision-making, creative self-expression, and personal connection to the task. The sense of success experienced while making the clay figure strengthens self-confidence, increases the sense of self-efficacy, and contributes to psychological stability. Since the finished angel figure is the tangible result of a longer process, the young people receive feedback on their abilities, their development, and the fact that they are capable of creating value—and this is one of the foundations of social integration (Schalock et al., 2002; Mezei, 2014).

Working with clay develops fine motor skills, the coordination of sensation and movement, and helps integrate sensory information, which is crucial for cognitive development and everyday functional abilities (Ayres, 2005). In addition, it has an emotion-regulating effect, since repetitive hand movements are calming, tension-reducing, and help relieve stress (Lusebrink, 2004). During joint work, social skills, cooperation, and communication competencies also develop, especially when the educator, as a facilitator, supports connection and collaboration.

### Process of the activity - steps for making the clay figure

The activity begins with preparing the clay casting slip, which is a structured yet palpably creative workflow. Under the guidance of the workshop leader, participants observe and follow the steps needed to prepare the casting slip to the proper consistency. Filling the mixing bowl with water and then adding the pre-sieved clay powder by itself develops attention, a sense of proportion, and task persistence. The sensory experience—observing the meeting of water and clay—deepens the relationship with the material, while giving the young people an opportunity for anticipation and understanding consequences, as they experience how the material's consistency changes over time. The settling of the slip requires patience, which supports the development of self-control through the experience of delayed gratification (Masten, 2014).

In the next phase, participants become familiar with the role of the molds. Dusting and fitting the plaster molds require operations that develop fine motor coordination and precision. It is important that the helper provide only as much guidance as aligns with individual abilities, thereby supporting the experience of independent work. When pouring the slip into the mold, the young people experience the behavior of the material: they observe how the clay settles and also how the mold's absorbency affects the material's state. Such experiences are not only sensory and motor development, but also cognitive learning situations that promote the recognition of cause–effect relationships.

Opening the mold and removing the figure require particular care, since the material is still fragile at this stage. During the process, participants learn how to handle a delicate object gently, which develops controlled movement, carefulness, and emotional attunement. The "birth" of the creation has a strong psychological impact: the young people experience that they can create value with their own hands, which strengthens the experience of competence and positive self-evaluation (Bandura, 1997). Observing the drying process and preparing for firing later provide further feedback for maintaining attention and practicing patience.

The glazing phase involves further aesthetic decisions, offering opportunities for self-expression and the display of creative intent. The young people observe how the surface changes with the application of glaze and how the material becomes fully solid during firing. These experiences foster process-thinking and perseverance: participants do not receive an immediate product, but see the result of their work realized at the end of a multi-step process.

# Recipe: Making a clay angel with a casting mold

### **Required materials**

- Clay or casting slip
- Mold (plaster casting mold with angel design)
- Water
- Brush, sponge
- Electric mixer (if preparing from powder)
- Drying tray

#### **Required tools**

- Bowl for the slip
- Measuring cup
- Rubber band or tape to fasten the mold halves together
- Fine tool for removing flash/seams

#### **Number of participants**

• 1 leader +2-3 youths

#### Time

- Preparation: 20 minutes
- Forming: 15–20 minutes
- Drying: 24 hours
- (later on a separate day: firing and glazing)

### **Steps:**

### 1. Preparing the casting slip (if not pre-made)

- Pour water into the bowl.
- Add the clay powder (in equal amounts).
- Let it stand for one day.
- The next day, mix thoroughly; dilute to a yogurt-like consistency.

### 2. Preparing the mold

- The mold must be completely dry.
- Dust it with a brush.
- Fasten the two mold halves together with tape.







Sources: own photo

### 3. Pouring

- Slowly pour the slip into the mold.
- Wait 10–15 minutes, monitor wall thickness.
- Pour out the excess slip.





Sources: own photo

# 4. Drying in the mold

• The angel rests in the mold for 24 hours.

### 5. Removal and finishing

- Carefully open the mold.
- Remove the flash with a sharp, fine tool.
- Smooth the surface with a damp sponge.





Sources: own photo



Sources: own photo

### 6. Drying

• Dry in a dry, well-ventilated place for 3–4 days.

#### 7. Firing and glazing

- Fire the completely dried figures at 1040°C.
- Dip the fired figures in water, prepare the glaze, mix until smooth and also sieve it.
- The sieved glaze should be thin, with yogurt-like consistency.
- Dip the water-dampened (meanwhile drying) figure into the prepared glaze, then let it drip off.
- After the glaze has dried, remove adhered glaze from the bottom with a damp sponge, wiping it back.
- The figure is ready for a second firing, depending on the glaze, at 900–1100°C.



Sources: own photo

#### **Safety notes**

- The mold must not be damp, otherwise the angel will stick inside.
- Handle the slip carefully to avoid splashing.
- Only the helper may use fine tools.
- Processes that may be dangerous or could lead to an accident should be carried out by the leader in the users' presence.

It is important that the helper knows the users' skills and abilities, so that during the workflow they can advance the users' work with appropriate guidance and support. Our users with learning difficulties can carry out the demonstrated and explained workflow independently or with verbal guidance.

For youths with learning difficulties, we demonstrate the task parts relevant to them with explanations; afterwards they perform their task independently. For those task parts that require more attention and precision, the leader's presence, attention, and possibly their own



manual work may also be necessary. After completing the tasks, we check the finished work.

The youths' varied difficulties may require varied solutions. The principles should be:

- Can they complete the assigned task independently? If yes, let them do it.
- Can the young person complete the assigned workflow, but only if someone guides them during the process? If yes, someone should assist and guide them.

#### Reflection and evaluation

The process of making the little angel is not merely a craft activity, but a structured developmental process that activates multiple cognitive, emotional, and social competencies. From the first step, participants are present throughout the entire arc of the activity, thus experiencing a result emerging from a process, which increases intrinsic motivation and perseverance. For youths with learning difficulties, it is particularly significant that the final product of creation is a tangible, aesthetically

valuable object that strengthens their self-esteem and contributes to a positive direction in identity development (Schalock et al., 2002; Mesterházi, 2006).

During the activity, participants experience a sense of competence: they are able to understand the behavior of the material, adapt to each step, and execute tasks at their own pace. The sense of success is especially strong when the finished figure takes shape and then appears in its final form after firing and glazing. This experience provides psychological reinforcement and supports a positive sense of self-efficacy (Bandura, 1997), which is of fundamental importance in the social integration of people with disabilities.

The activity also develops social competencies. Working together, sharing tools, and cooperating under the helper's guidance promote the development of communication, the ability to pay attention to one another, and adherence to social rules. The helper's role here is that of a facilitator: they do not replace the participant's work, but support their independence with guidance and encouragement. This is the basis of the inclusive pedagogical approach, according to which development requires a balance of challenge and safe support (Booth & Ainscow, 2002; Csányi, 2015).

In the reflection phase, the youths provide feedback—verbally or with nonverbal signals—about how they experienced the task. Viewing and holding the finished angel figure provides an opportunity to consolidate the experience of success and reinforces the sense that their work has meaning and results. From the perspective of psychological well-being, this process is defined by the experience of competence and self-determination, which are fundamental elements of positive identity development (Deci & Ryan, 2000).

A further advantage of the activity is that participants experience that mistakes are not fatal, but part of the learning process. If the mold is damaged, a crack appears, or the material runs, the possibility of correction conveys that perfection is not the goal but part of the path of development. This perspective contributes to strengthening frustration tolerance and coping skills, which are particularly important for developing the resilience of youths with disabilities (Masten, 2014).

#### Reflection and evaluation table

Evaluation Aspect	Observable Behaviors / Indicators	Developmental Impact	Evaluation Method
Participation and engagement	The young person initiates the task independently and joins the activity actively	Intrinsic motivation, engagement	Observation, structured notes
Level of independence	The proportion of independent work vs. guided assistance	Self-efficacy, sense of competence	Task analysis
Development of fine motor skills	Controlled movements during pouring clay slip, handling shapes, glazing	Sensorimotor integration	Observation, pedagogical feedback
Emotional reactions	Display of joy, pride, calmness during creation and when seeing the outcome	Emotional stability, self-esteem	Verbal reflection, facilitator observation
Social interaction	Asking for help, cooperative behavior with peers	Communication and cooperation skills	Group observation
Persistence and attention	Staying in the task until completion, managing frustration	Attention span, frustration tolerance	Time tracking, activity monitoring
Positive self- reflection	Evaluating one's own performance ("I made this," "I managed it")	Strengthening of identity, self-confidence	Verbal feedback

### Summary of the scientific background

The effectiveness of creative activities with clay in developing sensorimotor integration, emotion regulation, and self-efficacy is supported by numerous studies. According to Lusebrink's (2004) art therapy model, craft activities offer sensory experiences that promote emotional integration and reduce internal tension. Csíkszentmihályi (1997) showed that the flow experience arising during creative activities contributes to psychological well-being and the maintenance of intrinsic motivation. In developing youths with disabilities, the sense of self-efficacy and competence is particularly important (Bandura, 1997), as it fosters the self-confidence necessary for social participation. The inclusive pedagogical literature emphasizes that supporting participation and independent work increases the sense of autonomy and the development of a positive identity (Booth & Ainscow, 2002; Csányi, 2015).

# Making a Scent Sachet - Methodological activity description

#### Introduction and theoretical background

Making a scent sachet is a complex craft activity that simultaneously stimulates fine motor skills, sensory integration, emotional self-regulation, and aesthetic sense, while having a significant impact on participants' psychological well-being and self-esteem. Combining textile-therapy and aromatherapy elements is particularly effective in developing youth with learning difficulties, since through the channels of touch and smell it directly affects the nervous system and emotional state. The touch and scent of natural materials—such as cotton or lavender—evoke positive emotional reactions, reduce stress levels, and promote the development of a calm, focused state (Herz, 2004; Field, 2010).

According to art therapy models, the sensory experiences during craft activity (texture, scent, movement) promote self-expression and emotional integration, as perception is directly connected to the brain's limbic system where emotional processing takes place (Lusebrink, 2004). Working with lavender—a calming medicinal plant—particularly supports emotional stability, promotes relaxation, and reduces anxiety (Perry et al., 2012). This effect is demonstrably useful for people with developmental and intellectual disabilities, who often show increased neural sensitivity and difficulties with stress management (Mesterházi, 2006).

The selection, decision-making, and independent work involved in assembling the scent sachet contribute to the development of participants' self-efficacy (Bandura, 1997). The structured nature of the task creates safety, while at the same time allowing space for expressing individual preferences, which increases intrinsic motivation and experiential participation (Csíkszentmihályi, 1997). By selecting different textile materials and dried flowers, participants make aesthetic decisions that develop visual differentiation and the shaping of taste, and also support the development of cognitive flexibility (Schalock et al., 2002).

The activity is also significant from a social perspective: working together, sharing materials, and communicating with one another develops social competencies, promotes cooperation, and fosters attunement to others. The sense of success experienced while making the scent sachet—when the participant holds the object they created—strengthens identity and contributes to the young person experiencing themself as a value-creating, active participant in the community (Mezei, 2014).

#### Aim and developmental impact

The aim of the activity is for youth with learning and intellectual disabilities to participate—according to their abilities, independently or with support—in a creative process that promotes the strengthening of independence, emotional self-regulation, sensory integration, and the development of social competencies. Making the scent sachet is an activity in which every participant can experience the feeling of "I made this," which increases self-confidence and supports the development of psychological well-being (Schalock et al., 2002). The task is structured yet flexible, providing an opportunity for everyone to carry out their assigned phase at their own pace and level of independence.

### Process of the activity

The process of making a scent sachet is a structured yet creative and sensory-rich activity that enables participants to engage actively, according to their abilities, in every step of creation. The process begins with the preparation of the plant material, during which the young people can take part in cutting and drying lavender or other aromatic plants. This step is not merely manual work, but a kind of connection to nature that, through sensory experiences, supports emotional calming and the focusing of attention (Perry et al., 2012). The touching and crumbling of lavender provide tactile and olfactory stimuli that promote sensory integration and the development of fine motor skills (Ayres, 2005).

The phase of choosing the textile gives participants the opportunity to express individual preferences based on color, fabric quality, and texture. Touching and comparing materials develops perception, while the decision-making process contributes to the development of autonomy. The sewing workshop leader prepares the bags in advance or, with guided assistance, prepares them with the involvement of the participants, taking individual abilities into account. Turning the bag right-side-out and filling it are carried out as independent or guided tasks that require fine coordination of movements and increase participants' concentration.

During the crumbling of dried flowers and placing them into the bag, participants perform manual activity that, through rhythmic movements, has a calming effect and contributes to the development of the flow experience, when attention is fully directed to the task (Csíkszentmihályi, 1997). Filling the bag also provides an opportunity to develop a sense of proportion, spatial thinking, and aesthetic

decision-making, since the participant can decide how much material to place into the bag and which scent they wish to feel as dominant.

Preparing ribbons and tying the bag require fine-motor precision, hand-eye coordination, and attentional focus. While executing the small movements, the young people experience a sense of control and that they are capable of creating an aesthetically finished object. The helper's role in this process is supportive and facilitative: they provide as much help as is necessary for the participant to experience success at their own ability level, while not taking away the possibility of acting independently. This method corresponds to one of the most important principles of inclusive pedagogy, which is based on supported independence (Booth & Ainscow, 2002).

To conclude the activity, participants take the finished scent sachets in hand, smell them, and experience the sensory effect of the result of creation. This moment is particularly significant for psychological development, because the young people then confront their own tangible accomplishment, which strengthens self-esteem and the development of a positive identity (Schalock et al., 2002; Mesterházi, 2006).

# Recipe: Making a scent sachet

#### **Required materials**

- Thin cotton, linen, or muslin fabric
- Dried lavender, mint, chamomile, or a fragranced flower blend
- Ribbon, twine, or raffia
- Thread

#### **Tools**

- SCISSORS % (with helper supervision)
- Needle or sewing machine
- Small bowl for crumbling plants

# **Number of participants**

• 1 leader + 2-3 youths

#### **Time**

• Preparation: 10 minutes

• Sewing: 20 minutes

• Filling and closing: 10 minutes

### **Numbered steps**

1. Collecting and drying lavender







Sources: own photos

- 2. Selecting the fabric
- Choose a thin, scent-permeable textile.
- Prepare a ribbon that harmonizes in color.
  - 3. Cutting the fabric
- Cut a 10×15 cm rectangle (or another pre-given size).
- A helper supervises the cutting.
  - 4. Sewing the scent sachet (the leader may also perform this if the safety of the youths so requires)
- Fold the fabric in half.
- Sew the sides; leave the top open.
  - 5. Crumbling the dried flowers
- Participants crumble the lavender or flowers by hand or in a small bowl.







Sources: own photos

- 6. Filling the bag
- Fill the bag halfway with the dried plant. (You may also add a drop of essential oil.)





Sources: own photos

- 7. Closing the bag (with ribbon)
- Cut the ribbon to size.
- Tie the mouth of the bag with ribbon or twine.







Sources: own photos

### Safety notes

- Scissors may only be used under supervision.
- Dried plants should not be dusty or irritating.
- Participants with sensitive skin may wear gloves.
- It is important that everyone knows which part of the workflow is theirs.

For youths with learning difficulties, we demonstrate the workflow portion relevant to them with explanations; afterwards, they perform their task independently. After completing the task, we check the finished work.

For youths with intellectual disabilities, we explain and demonstrate their partial task verbally, print out their workflow with pictures as well, and for those for whom pictorial help is not sufficient, we provide direct guidance.

The varied difficulties of the youths may require varied solutions. The principles should be: Can they complete the assigned task independently? If yes, let them do it.

- Can the young person complete the assigned workflow, but only if someone guides them during task execution? If yes, someone should help and guide them.
- Could the user complete a part of the scent sachet making independently? Then let them complete that part independently.

#### Reflection and evaluation

The creation produced during the making of the scent sachet is not merely a product, but a mirror of the inner developmental process. At the end of the activity, the young people can share their experiences, and give feedback verbally or nonverbally about how successful, calm, or proud they felt. Based on the experiences, the educator or helper provides feedback, acknowledges the participant's effort, and gives positive reinforcement, which is a key motivational factor for people with learning difficulties (Bandura, 1997). The emotional reactions that arise during reflection contribute to the awareness of inner states and the development of self-reflection, which is the basis of psychological well-being (Deci & Ryan, 2000).

# **Evaluation table**

Evaluation Aspect	Observable Behavior	Development Area	Evaluation Method
Independence	The participant independently chooses materials, fills, and ties.	Self-efficacy, autonomy	Observation
Sensory integration	Differentiating materials and scents, processing tactile experiences	Sensory perception and neurological maturation	Behavioral analysis
Fine motor skills	Precise movements during filling and tying	Motor coordination	Measurement of manual performance
Emotional reaction	Signs of calmness, joy, pride	Emotional self-regulation	Verbal and non- verbal cues
Cognitive engagement	Following the sequence of steps, sense of proportion	Attention, executive functions	Facilitator / educator feedback
Social connection	Accepting assistance, cooperating with peers	Communication, cooperation	Group-based evaluation

# Summary

Making a scent sachet is a multisensory, creative activity that simultaneously develops fine motor skills, sensory integration, and the ability to work independently. Working with natural materials—such as cotton or dried lavender—promotes psychological relaxation, reduces anxiety, and supports mental well-being, while providing a concrete, tangible sense of success for participants. The process is structured yet leaves room for self-expression and individual choice, which promotes the positive reinforcement of self-efficacy and identity. In this way, the craft activity is not merely a developmental task, but a therapeutically powerful experience that supports in a complex manner the emotional stability, social integration, and cognitive development of youths with learning and intellectual disabilities.

# Adapting the Color-Notation Method to Handbells and Boomwhackers

### Introduction and theoretical background

Active music-making is one of the most powerful tools of development, because it has a direct effect on the nervous system, the emotions, and social connection. The color-notation-based musical method is a unique pedagogical and therapeutic tool that ensures access to the musical experience regardless of cognitive disadvantage, making it possible to play melodic instruments without traditional music-reading knowledge. Special-education teacher Heinrich Ulrich's method radically changed the inclusive approach to music education by marking sounds with colors, thereby transferring musical coding into a universally recognizable, visual system (Ulrich, 1991).

The effectiveness of making music is also supported by neuropsychological research: the rhythmic and melodic elements of sound production stimulate the functioning of both hemispheres of the brain and promote the formation of neural connections (Thaut, 2005). When applying boomwhackers and colored bells, youths execute motor responses to visual stimuli: to sound the instrument of the appropriate color, they must link the seen information with movement, which supports visuo-motor integration and sensory processing (Ayres, 2005). Structured musical rhythm and repetitive motor activity have a calming effect, as they regulate breathing, reduce anxiety, and promote emotional stability (Sacks, 2007).

One of the greatest advantages of the color-notation method is that it reduces cognitive load, and the lack of knowledge of traditional musical literacy does not hinder youths. During the application of the method, youths follow colors rather than noteheads, so they can achieve a sense of success from the very first time, which increases self-confidence and intrinsic motivation. This is in line with the principles of positive psychology, according to which the immediately experienceable feeling of competence promotes psychological well-being (Csíkszentmihályi, 1997; Ryan & Deci, 2000).

The communal experience of making music creates social cohesion. Rhythm synchronization—when several people play at the same time, attuned to each other—also biologically increases the release of oxytocin, the human bonding hormone (Kirsch et al., 2005). Therefore, group music-making is particularly effective in developing social skills and reducing isolation, which is often

characteristic of youths with autism spectrum disorder or intellectual disability (Geretsegger et al., 2014).

Adapting the color-notation method to bells and boomwhackers provides access also for those who can execute only a single movement pattern (striking, shaking) motorically, yet can still be full-value participants in music. Thus the method is not compensatory but inclusive, because it does not seek to replace disability, but finds the channel through which the youth becomes capable of self-expression (Wigram & Gold, 2006).

# Aim and developmental impact

The primary aim of applying the color-notation method is for youths with learning and intellectual disabilities to become active participants in musical activity and, according to their abilities, to join in the group music-making independently or with support. The essence of the method is to make the musical experience accessible to every participant, regardless of whether they possess traditional music-reading knowledge, advanced sense of rhythm, or cognitive processing ability.

The musical activity exerts a complex developmental effect in several areas:

# 1. Cognitive development

Observing the sounds assigned to colors and sounding them at the appropriate tempo activates attentional control, short-term working memory, and executive functions (Thaut, 2005). Recognizing the succession of sounds, following rhythm, and joining the musical structure stimulate neural plasticity and promote the development of learning abilities (Sacks, 2007).

# 2. Sensory and motor integration

Sounding boomwhackers and bells is movement in response to visual stimuli, which supports the coordination of perception and movement. Rhythmic movements promote regulation of the nervous system, reduce agitation, and support self-regulation (Ayres, 2005). This is particularly important for persons with autism spectrum disorder or intellectual disability, who often show sensory over- or under-responsivity.

# 3. Emotional and psychological development

The flow experience lived during music-making elicits inner joy and a sense of success, which has a supportive effect on emotional stability (Csíkszentmihályi, 1997). Musical self-expression provides an opportunity to process inner emotions, reduces anxiety, and increases positive affective states (Wigram & Gold, 2006).

# 4. Development of social competences

Group music-making requires harmony and attention to one another, which develops cooperation, staying in common rhythm, and recognizing social rules. During making music together, youths experience that their sound—even a single strike or bell shake—contributes to the creation of the entire piece of music. This strengthens the sense of belonging to the community, social identity, and self-esteem (Geretsegger et al., 2014).

# 5. Self-efficacy and autonomy

The basis of the method is ability-based participation: every participant can join the group music-making at their own skill level. Independent partial participation or helper-guided joining also creates value, which is the basis of the feeling of competence and self-confidence (Bandura, 1997).

# Process of the activity

Heinrich Ulrich, a German special-education teacher, opposed the view that people with intellectual disabilities are not capable of playing melodic instruments. He developed a method that does not require complex ways of thinking, nor knowledge of colors—only the ability to identify colors. The marking of note values also does not take place according to the traditional customary method. During the application of the method it turned out that it is suitable not only for the musical education and therapy of children and youths with intellectual disabilities, but, due to its simplicity, for anyone who cannot or does not wish yet to learn traditional notation. Thus the method can also be applied for preschoolers, autistic persons, and those with multiple disabilities.

Applying the color-notation method is a structured yet flexible music-therapy process that enables youths, according to their abilities, to join active music-making independently or with support. At the beginning of the process, participants listen to the selected musical piece, first passively, then by attuning to the rhythm. Prior listening to the song promotes the formation of the internal musical

image, supports the recognition of rhythm, and lays the foundation for the appearance of the flow experience, which leads youths into the mode of concentration necessary for making music (Csíkszentmihályi, 1997).

In the next step, the color score is presented, in which different colors denote specific sounds. Color coding provides visual access to the musical structure without expecting traditional music-reading skills. The youths receive their own instrument—bell or boomwhacker—whose color corresponds to the sound marked in the score. This begins the learning process of linking visual stimulus and motor response, which strengthens the nervous system's sensorimotor integration (Ayres, 2005).

The way of sounding the bell or boomwhacker is simple, so participants gain a sense of success already during the first attempts: physically touching or striking the tool results in immediate sound. This direct feedback has a reinforcing effect, increases motivation, and makes it possible for the youth to live participation in the activity as a value-creating process (Bandura, 1997). The timing of sounding the instrument is aided by visual signaling (the color in the score) and auditory accompaniment (musical background), thus multichannel processing activates the different sensory modalities.

During practice, music-making first takes place at a slower tempo, accompanied by joint humming or singing. Participants experience rhythm-following, which stabilizes neural activity and helps emotional regulation (Thaut, 2005). In the case of more complex rhythmic patterns, the instructor helps the youths individually, especially those for whom following the score is difficult. If necessary, the helper also physically supports the execution of the movement, or gives verbal cues for sounding the instrument.

During music-making, group members learn to pay attention to each other: they recognize when their part comes, and experience that their personal contribution is indispensable for the entire piece of music to sound. This kind of participation in a common rhythm increases social cohesion and promotes the formation of positive relational patterns (Geretsegger et al., 2014). At the end of the activity, the group performs the song together, then there is an opportunity for feedback and discussion of experiences, which makes development conscious and reinforces self-esteem.

#### **Required tools:**

- Pre-edited, drawn color score adapted to the colors of the bells or to the colors of the boomwhackers.
- Musical accompaniment from the internet or live musical accompaniment (guitar or piano)
- · Colored bells, boomwhackers

#### **Steps:**

- 1. Selecting the appropriate song or musical piece that our users like and whose range is appropriate (this criterion is important, since with bells we can play only songs with a 1-octave range without raised and lowered notes. On boomwhackers, songs with a 2-octave range can be played with raised and lowered notes).
- 2. Listening to the song or musical piece several times so that both the melody and the rhythm "get into their ears." (how the song should sound if we play it as well)
- 3. Distributing the appropriately colored bells and boomwhackers; here we must take into account the youths' skills and abilities—who is capable of playing which rhythm (for playing the more complex rhythmic patterns we can choose youths with learning difficulties who have good sense of rhythm; for playing the simpler rhythm we can choose from among youths with intellectual disabilities, who will make music either with guidance or with assistance).
- 4. Presenting and practicing the new rhythmic patterns.
- 5. Presenting the song on the color score; at the beginning of practice we continuously hum the song while keeping the rhythmic patterns, and the youths play their instrument in the meantime.
- 6. Practicing the playing of the more difficult rhythmic patterns—if necessary, we practice one by one, separately, away from the rest of the team.

For the sounds, instruments, and rhythms see Appendix 1.

#### Reflection and evaluation

Music-making carried out with the color-notation method is a developmental activity of special significance, since it simultaneously creates the experience of cognitive activation, emotional regulation, and social connection. For youths it does not merely mean carrying out an activity, but a lived experience of success, which—through the strengthening of the feeling of competence—exerts a positive effect on self-esteem and identity development. During making music together, participants experience that without their individual contribution the piece of music would not sound in its entirety. This experience strengthens the sense of belonging to the community, which is a significant protective factor from the perspective of psychological well-being (Ryan & Deci, 2000).

Music-therapy research proves that active music-making—especially the combined application of rhythm and melody—reduces anxiety, improves mood, and promotes the harmonious functioning of the nervous system (Wigram & Gold, 2006). Moreover, music-making implemented with the color-notation method has low cognitive load, so youths with learning and intellectual disabilities can also successfully participate. During the process, participants' attention is guided by colors and rhythms, which simplifies task execution and thus provides immediate positive feedback.

In the reflection phase of the activity, youths give feedback verbally, with mood icons, or nonverbally (smile, enthusiasm, applause), which the helper or group leader interprets. Discussion of mistakes does not take place as judgment, but as a natural part of development, which serves the strengthening of self-reflection and resilience. Listening to and analyzing the music together contributes to the development of auditory attention and cognitive self-monitoring (Thaut, 2005).

Overall, the method not only serves the development of musical skills, but the complex support of self-expression, self-confidence, attention, social skills, and emotional well-being—all in an inclusive and joyful way.

### **Evaluation table**

Evaluation Aspect	Observable Behavior	Area Developed	Type of Evaluation
Active participation	Uses their own instrument independently or with guidance	Intrinsic motivation, engagement	Observation
Rhythm following	Playing in the correct tempo	Attention, perception, nervous system regulation	Group music assessment
Connecting colors and sounds	Following color notation and responding to musical stimuli	Cognitive access, visuomotor integration	Facilitator observation
Cooperation	Coordinated playing with others	Social skills, teamwork	Group dynamics analysis
Emotional reaction	Joy, positive facial expressions, focused attention	Emotional regulation, psychological well-being	Verbal / non- verbal feedback
Self-awareness and reflection	Able to express their experience and recognize their own contribution	Self-reflection, self-evaluation	Reflection circle, discussion

# Summary

Music-making with color notation is an inclusive musical method that makes the musical experience accessible to every participant, regardless of cognitive characteristics or knowledge of music notation. The method is based on visually easy-to-interpret color signs which—paired with immediate musical sounding—exert a strong motivational effect and promote the rapid experience of success. During music-making, sensorimotor integration is activated, attention and timing develop, while rhythm and group cooperation strengthen emotional regulation and social connection. Making music together provides the experience of attunement, being in a common rhythm, and belonging to the group, which is particularly important in supporting the psychosocial well-being of youths living with disabilities. The method simultaneously develops, integrates, and exerts a therapeutic effect, therefore it is of outstanding significance in the toolkit of inclusive pedagogy and music therapy.

Beethoven: Ode for Joy



Self-knowledge training, rehearsal process for creators living with disabilities – meditation and relaxation exercises

### Introduction and theoretical background

Self-knowledge training through meditation and relaxation exercises is a particularly effective method for developing the psychological and physical well-being of youths living with disabilities and with learning or intellectual difficulties. Relaxation techniques are evidence-based: numerous studies confirm that focusing on breathing, bodily sensations, or visualization regulates the functioning of the nervous system, reduces the level of stress hormones, and increases emotional stability (Kabatt-Zinn, 2003; Sapolsky, 2004). As a result of relaxation, the parasympathetic nervous system is activated, which is responsible for the state of relaxation and regeneration, thus the exercises help reduce anxiety, tension, and agitation (Porges, 2011).

Meditation is not merely a passive state of calm, but active inner work that promotes self-reflection and the recognition and acceptance of emotions. The practice of inward attention helps youths to connect with their own feelings in a safe way and to experience the connection between body and mind (Goleman & Schwartz, 1976). In the case of persons with intellectual or learning difficulties, adapting meditation is particularly important: simple, well-structured and short exercises, repetitive elements, and multisensory stimuli help maintain focus and build emotional regulation (Singh et al., 2011).

The relaxation techniques used in self-knowledge training—such as breathing exercises, body-sensation focus, or visualization—are not only calming, but also develop neural flexibility (resilience). According to neuropsychological research, regular relaxation increases the activity of the prefrontal cortex, which is responsible for attention and decision-making, while it reduces the reactivity of the amygdala, which is the fear center (Hölzel et al., 2011). This is particularly important for this target group, in whom regulatory difficulties, inner restlessness, or heightened sensory sensitivity often appear.

Meditation and relaxation exercises develop body awareness, which is a key component of psychological well-being. Conscious attention directed to the body helps with attunement to the present moment, promotes self-acceptance, and reduces inner tension. These methods also offer a nonverbal opportunity for self-expression, which is particularly important for youths who live with verbal communication difficulties (Linehan, 2015). Thus, relaxation is not merely an exercise, but a tool of self-regulation and emotional self-knowledge, whose regular application supports psychological health and social inclusion in the long term.

### Aim and developmental impact

The implementation of self-knowledge training through meditation and relaxation exercises is a developmental process that aims at the safe exploration of the inner world of youths, the improvement of their self-regulation, and the strengthening of their psychological stability. The primary goal of the program is for participants—according to their abilities—to actively join the relaxation processes, to experience the feeling of calm, and to learn to recognize their own bodily and emotional states. The method is not performance-oriented but experience-oriented, so every participant can join the exercises at their own pace and at their own level of emotional safety.

Relaxation and meditation exercises enhance nervous-system regulation, which is particularly important in the case of youths with learning and intellectual difficulties, who may be more prone to increased tension, anxiety, or impulsivity. Breathing exercises and body awareness activate the vagus nerve, the main regulator of the parasympathetic nervous system, responsible for physical and mental calm (Porges, 2011). Furthermore, visualization and musical meditation develop inner image creation, help the display of emotions, and promote the formation of a positive vision of the future.

An important goal of the training is the development of self-reflection and emotion recognition. During the exercises, youths experience their own reactions to various internal and external stimuli, recognize the tension or relaxation that appears in their bodies, and learn to regulate them. This is one of the basic components of emotional intelligence, the development of which is crucial for more independent life management and handling everyday stress situations (Goleman, 1995).

Relaxation exercises also support the development of social skills, since meditation performed in a group strengthens the sense of safety, increases empathy, and helps attunement to one another. Listening to silence together and the formation of a common breathing rhythm create social cohesion also at a biological level, which is one of the basic conditions of social integration (Kirsch et al., 2005). Thus relaxation is not merely a psychological self-help technique, but a form of inclusive community experience that contributes to the creation of inner safety for youths.

# Process of the activity

During self-knowledge training, participants settle in a calm, safe space where the physical environment—such as mats, blankets, quiet background music or sounds of nature—helps relaxation and attunement to the present moment. At the beginning of the activity, the helper creates a safe atmosphere and explains that relaxation is not performance, but an inner experience whose goal is the calming of body and soul. This is particularly important for youths living with disabilities, who often experience avoidance of failure or performance anxiety, and for whom a pressure-free, accepting environment creates the conditions for active participation.

The first phase of the session is built on breathing exercises. In a sitting or lying position, under the guidance of the helper, participants learn to direct their attention to their breathing: they observe the in- and outflow of air and the rising of the chest or abdominal area. This exercise helps activate the parasympathetic nervous system, which results in physical relaxation and psychological calming. The awareness of breathing may be followed by a slow movement phase, for example raising the arms or lowering the shoulders, where attention is directed to the perception of movements. This movement-based meditation helps participants step out of inner tension and return to the safe presence of the body.

The next step in the process is body-sensation focus, during which the helper asks youths to "travel" through their body in imagination from the toes to the top of the head and observe the contact, weight, and sensation of each body part. This technique develops interoceptive awareness, which is Page 86/143

directly connected to emotional regulation and the capacity for self-reflection (Craig, 2002). Focusing on bodily sensations helps youths to recognize the difference between tension and calm, and to consciously switch into a relaxed state.

The next level of the exercise is visualization, during which youths, with quiet musical background, imagine a place that is calming for them—such as a forest, a stream bank, or a safe room. During the guided imagery, the helper describes the place's sounds, scents, and light conditions, so the participant experiences a multisensory experience at the level of imagination. This kind of mental journey helps release inner tension, strengthens access to positive emotions, and supports the formation of resilience (Holzel et al., 2011).

The closing phase of the session is silent zen meditation, which does not mean a cultic practice, but the conscious living of the present moment through attention to breathing. At this point attention is already directed inward more independently, and the appearance of thoughts does not appear as an error but as a natural part of the process, which the youth learns to notice and let go. At the end of the session, under the guidance of the helper, there is a short reflection about what bodily or emotional states they experienced, which promotes self-reflection and the processing of experiences.

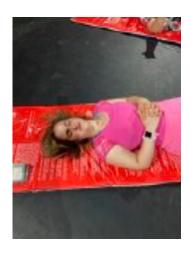
#### **Required tools:**

- Mat (foam mat, yoga mat)
- Speaker
- Music player

### **Steps:**

#### 1. Breathing exercises

The awareness and regulation of breathing can help with physical and mental relaxation. Deep breathing is a simple method excellently suitable for handling emotions, easily usable anywhere and anytime.



#### 2. Movement exercises

Light physical activity, such as stretching or slow walking, can also help with physical and mental relaxation. Conscious movement, where our attention is directed to the movement of our body, can also be useful so that we do not focus on the tense things going on inside us.

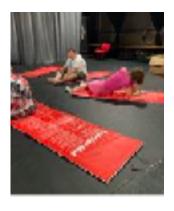




Sources: own photographs

#### 3. Awareness of bodily sensations

Let us lie down, sit down comfortably, and try to focus on what is happening in our body. The rhythm of breathing and the contact of our feet with the ground can help with anchoring in the present moment.





Sources: own photographs

#### 4. Focusing on the senses

Focusing on the sensory modality most easily accessible to youths, for example hearing or touch.

Let us listen to the sounds of the environment, or touch different textures and let these experiences draw our attention away from the things of the outside world.





Sources: own photographs

#### 5. Visualization

We listen to music, imagine a calm, peaceful place or situation, and allow ourselves to experience our emotions fully.



Sources: own photographs

#### 6. Zen meditation

It is important that we are able to focus on silence and conscious presence.

Correct posture and attention to breathing can also help with relaxation.





Sources: own photographs

#### **Safety measures:**

It is important that situations which may be dangerous and may lead to accidents (movement, change of location, transportation, etc.) be practiced together several times until they are completely safe. During relaxation and meditation exercises it is important not to overexert ourselves.

#### Reflection and evaluation

The reflection phase of meditation and relaxation exercises is a key element of the developmental process, as it creates an opportunity for the awareness of experiences, the naming of emotions, and the recognition of internal state changes. At the end of the session, participants—according to their abilities—formulate or indicate nonverbally how they felt before, during, and after the exercises. The helper's role in this phase is facilitative: they help youths recognize their own bodily and mental reactions and support the formation of self-reflection, which is the basis for the development of self-knowledge and emotional intelligence (Goleman, 1995).

During relaxation, repressed emotions often emerge—such as fear, uncertainty, or thoughts related to death—which the youths were previously unable to verbalize. These are processed with the support of a professional, through the acceptance and reframing of real emotional experiences. During reflection, the helper accompanies participants with an empathic attitude, encourages the living of trust, and feeds back that every feeling is acceptable and valid, thereby providing cognitive and emotional safety (Linehan, 2015).

Evaluation provides an opportunity to identify directions of development and to reinforce the experience of positive change in the participant. Through regular relaxation exercises, the focusing of attention may improve, anxiety may decrease, and the sense of internal control may increase, which in the long term contributes to more independent life management and psychological well-being. The reflection phase records experiences and makes conscious that the youth is capable of influencing their own bodily and emotional state—this is one of the most important experiences of self-efficacy (Bandura, 1997).

### **Evaluation table**

Evaluation Aspect	Observable Behavior or Indicator	Area Developed	Evaluation Method
Physical relaxation	Reduced muscle tension, calmer breathing	Nervous system regulation	Observation
Attention focusing	Sustaining attention on breathing or movement	Cognitive control, interoception	Facilitator feedback
Level of participation	Independent engagement or guided participation	Self-efficacy, motivation	Observation, group dynamics
Change in emotional state	Verbal or non-verbal feedback about calmness or reduced tension	Emotional regulation, self-reflection	Reflection discussion
Social connection	Participation in quiet co-presence, accepting others' presence	Community integration, social safety	Group feedback
Self-reflection	Ability to verbalize feelings and recognize personal experience	Self-identity, psychological maturity	Verbal feedback

# Summary

The application of relaxation and meditation exercises during self-knowledge training initiates a complex developmental process that simultaneously supports physical relaxation, emotional balance, and the formation of inner self-reflection. The method makes the experience of psychological self-regulation accessible also to those who have difficulty expressing their feelings verbally and provides a safe framework for experiencing emotions. The focus directed to breathing, bodily sensations, and inner images promotes calming of the nervous system, reduces anxiety, and strengthens the sense of self-efficacy. During the group process, participants experience the safety arising from shared presence, which supports the development of social connection and self-acceptance. Thus meditation is not merely a relaxation technique, but one of the fundamental tools of emotional maturation and psychological recovery in the lives of youths living with disabilities.

# **Camp Journal**

### Introduction and theoretical background

Keeping a camp journal is of outstanding importance in the processing of experiences for youths with intellectual disabilities, as it helps to systematize experiences, to embed memories emotionally, and to develop communication skills. Camp, as an intensive and multisensory experiential environment, offers numerous new situations and interactions that in themselves have a strong impact on the participant's psychological state and identity development. However, these experiences can fade quickly, especially in the case of youths who have difficulties with short-term memory, attentional focus, or the capacity for narrative memory (Schalock et al., 2002). In this sense, the journal is not merely a document, but a therapeutic and pedagogical tool that supports the strengthening of identity, the structured processing of experiences, and social communication (Bruner, 1990).

While keeping the diary, youths take an active role in recording their own experiences, which develops their sense of autonomy and their capacities for self-reflection. Describing or drawing the events lived through reinforces personal narrative identity, that is, the ability of the young person to interpret themselves and their relation to the world in the form of stories (McAdams, 2001). This is particularly important for those whose repertoire of self-expression is limited due to communicative or cognitive difficulties. The combination of visuals and text in the journal—using Easy-to-Read Communication elements—makes it possible for every participant to take part in recording experiences in a way that matches their abilities (Gönczi, 2015).

The process of journaling also serves to strengthen spatial and temporal orientation: recalling the daily events in order develops the concept of time, while documenting places and persons contributes to the formation of social orientation and memory connections. In addition, the use of the journal provides a structured framework for identifying and expressing emotional experiences, which is one of the foundations for the development of emotional intelligence (Goleman, 1995). Drawings, photos, glued elements, or short written entries make it possible for those youths to participate in the process who are limited verbally.

The camp journal is not only an individual developmental tool, but also a relational bridge between the camp and the home environment. It helps convey experiences to family members, friends, or educators, thereby strengthening social integration and the sense of belonging to a community (Ryan & Deci, 2000). The regular completion of the journal can be linked to daily rituals, which provide safety and predictability in an environment full of changes. This structural safety is particularly important for youths with autism spectrum disorder or intellectual disability, who are sensitive to unfamiliar situations and intense emotional stimuli (Howlin, 2005).

Overall, the camp journal is not merely a memory book, but a developmental—therapeutic tool that transforms experiences into integrated lived experience, supporting cognitive, emotional, and social development.

## Aim and developmental impact

The primary aim of using the camp journal is to provide a safe and structured tool for youths with intellectual disabilities to record, systematize, and process the experiences, impressions, information, and emotions gained during camp. Completing the journal at an individual pace and in a differentiated way makes it possible for participants—according to their abilities—to become active actors in the process of memory creation and self-reflection. Thus the journal is not merely documentation, but a tool for self-knowledge, cognitive and emotional development, which supports the formation of personal identity, the strengthening of memory, and the embedding of positive emotions connected to experiences.

During completion of the journal, short- and long-term memory develop, since recalling, formulating, and recording daily events helps consolidate experiences in memory. The practical elements of the activity—writing, drawing, gluing pictures—promote the development of fine-motor coordination, spatial orientation, and visual-motor integration. Recording the daily schedule supports the recognition of temporal structure, which is particularly useful for those who have difficulties orienting in time or adapting to changes in routine.

The developmental effect of the journal also extends to emotional self-regulation, as it provides youths the opportunity to identify and express the feelings connected to events—joy, curiosity, fear, surprise. Thus the journal becomes a channel for emotion processing, which helps the awareness of inner experiences, reduces anxiety, and promotes the formation of emotional stability (Goleman, 1995). During journaling, the young person creates a narrative about themselves as a camper, explorer, and community participant, which strengthens a positive self-image and the experience of belonging to the community.

An additional important developmental goal is to encourage communication and interaction. Completing the journal creates opportunities for conversation, questions, explanations, and storytelling, which promote the development of social skills and the awareness of social experiences. The journal is also a mediation tool that supports communication between the camper and the helper and provides structure for passing on experiences at home as well; thus it becomes an important point of connection for parents and family members as well.

Overall, the camp journal exerts a complex developmental effect in the areas of cognitive, emotional, social, and motor skills, while increasing independence and the capacity for self-expression at the individual level, and strengthening integration and the experience of social connection at the community level. Thus the journal is not merely documentation of the camp, but a tool for supporting psychological well-being and identity development.

# Process of the activity

The use of the camp journal is not merely an administrative task, but a consciously constructed, experiential self-reflection process that accompanies the development of youths with intellectual disabilities throughout the entire duration of camp. The activity begins even before camp: participants meet the helper, receive the journal, write their name in it, and together become familiar with the camp's location, date, and the participants. This introductory phase helps create a sense of safety, reduces uncertainty, and prepares the youths' mental state for the reception of new experiences. Thus the journal functions as a point of orientation from the outset, serving the young person's orientation and the structuring of their experiences.

During camp, the journal is completed on a daily basis—typically at the end of the day, in a quiet, calm moment when the youths can look back on the day's experiences. Under the guidance of the helper, participants recall which programs they took part in, whom they met, what they ate, what feelings they experienced, and in connection with these they complete the appropriate pages of the journal with writing, drawing, pictograms, or glued pictures. The pages of the journal contain preplanned questions and visual aids that help place the events in chronological order, support the recall of memories connected to places and persons, and create opportunities to formulate emotions.

Tasks appear in varied forms: the young person can depict their favorite program in a drawing, glue in a photo of what they saw, choose from pictograms how they felt, or write short words with the helper's assistance. The focus of the activity is not on graphical or linguistic perfection, but on the

expression and recording of experiences. In this way, the journal becomes a multimodal surface for self-expression that is accessible to every participant in a way that suits their own abilities.

Regular completion of the journal promotes the youths' conscious living-through and integration of events, while the helper mediates and supports the verbalization or visual display of inner experiences. During the activity, narrative thinking, maintenance of attention, memory consolidation, and emotional awareness develop. The use of the journal strengthens the sense of control and competence: the young person experiences that they are capable of documenting their own experiences and thereby becoming an active actor in their own life.

At the end of camp the journals are closed: participants leaf back through the document together, recall the most important experiences, and choose the most memorable moments for themselves. Thus the journal is not merely documentation, but a tool for the emotional embedding of memories, which can also be used in the long term for conversations at home, presentations, and the reliving of experiences.

#### **Required tools:**

- Notebook-bound sheets in which the pages are pre-edited. On the cover appear the name and location of the camp, the date, and a designated place for the owner's name
- 1 pencil, possibly colored pencils, crayons

Number of participants: individual task, but applies to every young person traveling to camp

**Helper:** 1 helper / 1–2 campers, and it is important that the helper speaks the camper's mother tongue and knows their mode of communication and AAC (Augmentative and Alternative Communication) device, if they have one.

#### **Steps:**

- 1. brainstorming (what should go into the journal depending on the camp's program, location, and the participants' abilities; see as an example the journal found in the appendix)
- 2. editing the pages
- 3. printing the journals (it is good if provided with a durable, possibly waterproof cover)

4. before departure, meet at least once with the camper and talk with them about the camp, and start filling in the journal.

#### Safety measures:

Have a spare pencil or a sharpener at hand. Before departure, the camper's name must definitely be put on the journal. Content appropriate to abilities and appropriate mediation in completing it are important so that the journal does not cause frustration and, upon arriving home, also serves the possibility of reporting on experiences.

When editing the journal, use Easy-to-Read Communication (in Hungarian: <a href="https://konnyenertheto.gonczirita.hu/ismeret/modszertan/">https://konnyenertheto.gonczirita.hu/ismeret/modszertan/</a>). The camp journal must include the camp's program (for getting information, browsing, but also for keeping). Small sheets titled "What did I see on the way?" can also be attached to the camp journal, and it is important that the camp journal be included on the packing list among the items to be placed in the small backpack.

A sample camp journal can be found in Appendix 2.

#### Reflection and evaluation

The use of the camp journal does not end with completing the document; one of the most important parts of the process is the joint processing and awareness of experiences. Reflection makes it possible for youths with intellectual disabilities not merely to live through the events of the camp, but to understand them, give them emotional meaning, and make them part of their own life story. Thus the journal becomes a psychological tool for memory processing, supporting the formation of identity and the connection to personal experiences.

The evaluation process takes place after the closing of camp, where participants share the contents of their journal with each other as well as with their family members, teachers, or friends. This joint looking back supports the development of communication skills, because the young person tells about their experiences in narrative form or presents what happened using visual tools. In this way the journal performs a mediation role: it forms a bridge between experience and communication, supports social connection and the reception of community feedback, which reinforces positive experiences and supports the development of self-confidence (Ryan & Deci, 2000).

During reflection, the helper can guide the conversation with questions:

- What did you like best in the camp?
- Was there something you were afraid of or excited about, and how was it resolved?
- With whom did you become friends?
- What new thing did you learn about yourself?

These questions not only remind, but initiate emotional processing and help youths give meaning to their experiences. The visual elements of the journal (drawings, pictures, pictograms) are particularly useful for youths with autism spectrum disorder or with speech difficulties, because they also make nonverbal reflection possible, so the journal remains accessible to every participant.

The psychological function of the reflection phase is twofold: on the one hand it closes the experience of camp, and on the other it reinforces the young person's capacity to systematize their experiences and share them with others. This contributes to the development of self-identity, social learning, and memory consolidation, and in the long term supports social inclusion and the formation of emotional resilience.

### **Evaluation table**

<b>Evaluation Aspect</b>	Observable Behavior	Area Developed	Evaluation Method
Independent participation in journaling	The young person completes the journal independently or with guidance	Autonomy, independence	Observation
Memory recall	Recalling and writing down daily events	Memory, temporal orientation	Verbal / non- verbal feedback
Emotion recognition	Expressing emotional reactions or using symbols	Emotional intelligence, self-awareness	Reflection conversation
Communication activity	Sharing experiences with the facilitator or the group	Social communication, interaction	Group presentation
Creative self- expression	Drawing, gluing, selecting images	Aesthetic skills, self-expression	Analysis of visual journal elements
Psychological safety	Verbalizing positive experiences related to the camp	Emotional stability, resilience	Observation and feedback

### Summary

The camp journal as a methodological tool has a complex developmental effect on the cognitive, emotional, and social development of youths with intellectual disabilities. It does not merely serve to preserve experiences, but is one of the key elements in the formation of personal identity, which promotes self-reflection, the emotional embedding of positive memories, and the integration of community experiences. During journaling, the young person becomes an active participant in the story of their own life, experiences the sense of competence, and learns to express their inner world. This process supports psychological well-being, resilience, and integration into society in the long term; thus the camp journal serves the recording of experiences, development, and emotional integration alike.

# **Preparing for Camp: Travel**

### Introduction and theoretical background

Travel is one of the most important and at the same time most sensitive phases of camp participation for youths with intellectual disabilities. The unfamiliar environment, unusual situations, temporal uncertainty, and lack of spatial orientation can trigger anxiety, behavioral difficulties, or excessive excitement. Structured preparation and deliberate attention-guidance during travel, however, can reduce stress and create a sense of safety, which is a precondition for successful camping together (Howlin, 2005).

According to social-pedagogical research, orientation in space and time is not only a cognitive ability but also a factor providing emotional safety: if the young person understands where they are, where they are going, and when they will arrive, the sense of uncertainty decreases, and thereby behavioral difficulties also decrease (Schalock et al., 2002). Visual tools—such as the travel strip or the "What did I see?" list—are prepared on the principles of Easy-to-Read Communication, which provide cognitive access to information for persons with intellectual disabilities (Gönczi, 2015). These tools make the travel process transparent, help in understanding the passage of time, and in recognizing the geographical points of the route.

Structured activity during travel—e.g., directing the focus of attention to external stimuli and recording them—has two important psychological effects: on the one hand, it diverts attention from

inner tension; on the other, it strengthens active connection to the environment. The "What did I see?" list is not merely a playful task but a cognitive stimulation tool that develops powers of observation, supports the development of selective attention, and potentially promotes the storage of experiences in long-term memory (Baddeley, 2000). The reward system—using positive reinforcement based on the principles of behavioral psychology—increases motivation, strengthens rule-following, and reduces the chance of behavioral problems (Skinner, 1953).

The social dimension of travel is also of particular importance: the stretches of road lived through together, the announcements of discoveries to one another, and communication among fellow travelers promote the development of social relationships and the formation of group cohesion already in the initial phase of camp. This kind of "shared orientation" is the psychological forerunner of the camp experience, laying the foundations for positive cooperation and promoting the emergence of a sense of belonging to the community (Ryan & Deci, 2000).

All in all, the structured pedagogical and psychological support of the travel process prepares not only the arrival but the "arriving"—that is, it ensures that participants enter the experiential world of camp in a state that is receptive emotionally, cognitively, and socially.

# Aim and developmental impact

The primary aim of the activity is to increase the sense of safety of youths with intellectual disabilities while developing their spatial and temporal orientation, communication skills, and self-regulation abilities during travel. Travel is not merely physical relocation but also a psychological transition from the familiar home environment to the new, unfamiliar world of camp. The adaptive handling of this transition fundamentally determines whether camp appears as an experience or as stress for the participant (Howlin, 2005).

One of the most important developmental effects of the activity is the establishment of cognitive structure. The travel strip visually presents the departure, the route's stations, the border crossing, and the arrival, thereby supporting the development of sequential thinking, which is essential for the formation of mental maps and for maintaining a sense of safety (Baddeley, 2000). Thus participants learn that the travel process is foreseeable, understandable, and controllable, which reduces anxiety and the intensity of behavioral manifestations.

The activity's goal is also to activate attention directed toward the external world, which stimulates perception and observation skills. The "What did I see?" list motivates participants to consciously perceive the environment, thereby promoting connection to the surroundings and cognitive engagement, which prevents behavioral disorders arising from boredom or frustration (Schalock et al., 2002). The application of a reward connected to at least eight observations corresponds to the principle of operant conditioning (Skinner, 1953), an effective method for reinforcing positive behavior and establishing adaptive behavior patterns.

The activity likewise has a significant effect on the development of communication and social skills. Interactions during travel—for example, sharing observations, checking off items together, or discussing stations—promote social connection, attention to one another, and the creation of a shared experiential picture. Supporting communicative initiation is especially important for youths with intellectual disabilities, who often fall into a passive role in everyday interactions (Gönczi, 2015). Here, however, they become active observers and transmitters of experience, which strengthens their self-esteem and sense of belonging to the group (Ryan & Deci, 2000).

In summary: the activity serves a complex developmental aim—it simultaneously reduces anxiety, increases the sense of safety, develops cognitive orientation, supports social interactions, and lays the groundwork for the positive reception of camp experiences. Thus travel is not merely a transport process, but the first psychological station of gaining camp experiences.

# Process of the activity

Travel, as an experiential process, is not merely a logistical event, but for youths with intellectual disabilities a structured learning and adaptation phase that prepares them to receive camp experiences. The process begins before the vehicle departs, in the parking lot, where the helper creates a calm, supportive atmosphere and with visual tools presents the road ahead. The travel strip appears as a visual map on which the youths can see where they are starting from, which stops will follow, when they will cross the national border, and finally where they will arrive. Placing the vehicle symbol at the starting point is a kind of ritual indicating that the process has begun and that every participant is an active part of the journey.

During travel, the vehicle symbol is moved forward on the travel strip at each stop. This action is not merely a technical task but of symbolic significance: it enables the participant to understand the passage of time and the progress of the process. Naming the stations—for example, "we are here Page 100/143

now, the next stop is city X"—supports temporal and spatial orientation and forecasts what to expect, thus reducing uncertainty.

Focusing attention is supported by the "What did I see?" list, on which pictures or symbols mark elements that can be observed during travel. The task of the youths is to watch the landscape, buildings, vehicles, signs, and natural phenomena while traveling. When someone recognizes one of the elements, they may signal to the group that they have seen it, and subsequently they may make the "check mark" in the journal. This process strengthens perceptual focus, increases alertness, and prevents agitation or behavioral problems arising from boredom. The use of the list is a playful, motivating tool that directs attention to external stimuli while developing visual differentiation, observation skills, and short-term memory.

The role of the helper is facilitating and structuring. They are the one who reminds the youths of the next station, confirms observations, and supports the maintenance of attentional focus with continuous feedback. Encouraging communication—whether verbal, picture-based, or symbol-based—promotes the formation of social interaction, which is the first step in shaping the camp community. The helper ensures that the activity remains joyful and does not become a forced experience; accordingly, naming the reward in advance creates a structured motivational framework.

At the end of travel, when the vehicle symbol reaches the end of the travel strip, the activity is psychologically closed: the youths become aware that they have arrived and that the journey was successful. This experience brings positive reinforcement, which increases the sense of self-efficacy and lays the foundation for the inner stability needed for camp participation. The reward associated with arrival—for example, getting ice cream together—is not merely an entertaining element but a success ritual that closes the travel phase and creates a joyful entry into the experiential world of camp.

#### **Required tools:**

• 2 travel strips (one for the outbound trip and one for the return trip), on which at the beginning we have indicated the name and type of the place of departure and at the end the name and type of the place of arrival, and between them the stations of the journey (where they stop and get out of the vehicle as planned), furthermore the national borders if we cross them, plus a vehicle symbol that can be moved at the stations



Source: own creation based on Google Maps

- 2 "What did I see?" lists (see Appendix 3)
- 1 pencil (packed into the small backpack with which the participant with intellectual disability travels)

Number of participants: individual task, but applies to every young person traveling to camp

**Helper:** if possible, assign one helper to each young person, but sitting in the middle one helper can support two youths as well.

#### **Steps:**

- 1. Before departure we show on the travel strip from where to where we are traveling, and what will happen on the way.
- 2. Together we place the vehicle symbol at the beginning of the travel strip.
- 3. On the way, at the stations we move the symbol forward together, right up to the end of the journey. Meanwhile, we recall several times which country we are in, and on the "What did I see?" list we ask them to mark at least 8 pictures, for which a reward is given.

#### **Safety measures:**

Have a spare pencil or a sharpener at hand. As a general rule, if someone catches sight of something from the list, they must tell the others, but only the one who actually saw that thing may mark it.

#### Reflection and evaluation

At the end of the journey, reflection serves the emotional closure of the process and the awareness of the experiences undergone. The youths—according to their abilities—look back on how they felt during the trip, what they saw, what experiences they had, and how they coped with the new situations associated with travel. In this way, the activity records not merely the fact of "arriving," but also promotes the psychological incorporation of travel as a learning process.

During the joint evaluation, reviewing the items of the "What did I see?" list not only assesses observation skills but also provides an opportunity for positive feedback and reinforcement of experiences. The giving of the reward—for example, getting ice cream together—is not a simple entertaining element but the deliberate application of positive behavioral reinforcement, which will motivate youths in the future as well for active participation, cooperation, and rule-following (Skinner, 1953).

Reflection takes place as a conversation, where the helper facilitates the processing of experiences and supports the verbalization of emotions:

- "What did you like most during the trip?"
- "Was there something that surprised or frightened you?"
- "How did you feel when you saw the first border crossing or mountain?"

The aim of the questions is for the youths to become aware of their own inner experiences and to experience that talking about their feelings is safe, accepted, and valuable. This kind of processing supports the development of emotional intelligence, promotes the release of tension, and lays the groundwork for the psychological stability needed for the subsequent days of camp (Goleman, 1995).

The joint reinforcement of travel experiences also has a group-forming function: through positive community experiences, the young person experiences that they are not traveling alone but as a member of a group to which they can connect, in which they can take a role, and to which they represent added value. This experience strengthens social integration and reduces the sense of isolation, which often accompanies intellectual disability (Schalock et al., 2002).

### **Evaluation table**

Evaluation Aspect	Observable Behavior	Area Developed	Type of Evaluation
Following the route on a visual tool	Correctly moving the vehicle symbol along the travel path	Spatial and temporal orientation	Observation
Attention to external stimuli	Noticing 8 or more items from the "What did I see?" list	Visual perception, memory	Checklist-based assessment
Communication activity	Sharing observations with peers or facilitator	Social competence	Group reflection
Behavior regulation during travel	Sitting calmly, following rules	Self-control, emotion regulation	Observation
Motivation and participation	Showing active interest in the next station	Intrinsic motivation	Praise and feedback
Positive emotional reaction upon arrival	Expressing joy and satisfaction	Self-esteem, sense of achievement	Verbal / non- verbal cues

### Summary

The structured preparation of the trip to camp and its support with observation tasks play a key role in creating psychological safety, developing cognitive orientation, and laying the foundations of social relationships for youths with intellectual disabilities. The travel strip and the "What did I see?" list are not merely visual aids but active learning and self-regulation tools that help integrate experiences, reduce the stress associated with travel, and transform the transitional period into a positive experience. The method's motivational and reward system supports the positive shaping of behavior, while joint observations promote social connection, cooperation, and the formation of group cohesion, which are preconditions for the successful start of camp and experiential learning.

# **Preparing for Camp: Packing**

# Introduction and theoretical background

Preparing for camping—especially among persons with intellectual disabilities—is not merely a logistical task, but a complex developmental process that is one of the most important tools for building independence, decision-making skills, temporal orientation, and a sense of responsibility. Active participation in the packing process supports the development of life skills, strengthens the sense of self-efficacy, and contributes to the formation of an adult identity among youths with

intellectual disabilities (Wehmeyer & Schalock, 2001). The ability to live independently requires not only physical and cognitive competencies, but also emotional safety, an internal sense of control, and a supportive environment that makes possible independent attempts, making mistakes, and learning from experience (Bandura, 1997).

The packing process provides a perfect arena for practicing executive functions: planning, making decisions, following the sequence of task steps, and organizing time are all cognitive abilities that are often impaired or in need of development in this target group (Barkley, 2012). A structured packing list with visual supports—especially pictures or pictograms—is a proven effective tool for supporting people with autism spectrum disorder, intellectual disability, and other neurodivergent developmental patterns, as visual stimuli provide more stable, more easily accessible information transfer than verbal instructions (Hodgdon, 1995; Mesibov & Shea, 2010). The presence of visual structures reduces anxiety, increases the experience of predictability, and creates an opportunity to perform the task more independently, which in the end reinforces the sense of competence (Schuerman et al., 2019).

Independent packing is not merely a technical action, but an experience that strengthens self-identity and self-determination. Selecting and arranging personal items, the freedom to decide what is important during camp, all contribute to recognizing and expressing one's own preferences. The international literature emphasizes that adaptive life skills, such as packing, are key to achieving social participation and independent living (AAIDD, 2010; Thompson et al., 2009). These skills significantly improve the quality of life and psychological well-being of persons living with disabilities by reducing caregiver dependence and promoting autonomy (Verdonschot et al., 2009).

The role of emotional aspects is not negligible either. Preparing for camp is often accompanied by anxiety due to the unfamiliar environment and stepping out of the home routine. The structured process of packing provides emotional safety, helps prepare for the new situation, and—by strengthening the sense of control—reduces uncertainty (Kuhlthau et al., 2010). The use of a visual list and the repetitive, predictable structure of the activity provide emotional stability alongside cognitive stability, which is particularly important for vulnerable persons with intellectual disability or autism.

Overall, packing is not only a preparation for camp, but a developmental process with therapeutic value that contributes to increasing youths' autonomy, maintaining their cognitive skills, creating

their emotional safety, and promoting their social integration. The conscious, structured integration of this activity offers a developmental opportunity that has a direct impact on the participants' overall quality of life.

# Aim of the activity and developmental effects

The primary aim of the activity is for youths with intellectual disabilities to participate as independently as possible in preparing for camp, especially in packing their personal belongings. The practice of independent packing contributes to strengthening autonomy, experiencing self-determination, and developing competencies that are of fundamental importance in establishing independent living (Wehmeyer, 2005). The activity is not merely a functional task, but has outstanding psychological significance as well, as it supports the sense of self-efficacy (Bandura, 1997) and strengthens the sense of control before a new, not yet known environmental situation.

The packing process creates an opportunity to practice executive functions, which include planning, recognizing sequences, decision-making, and temporal orientation (Barkley, 2012). Following the visual list, the act of ticking off items, and the physical placement of objects support the activation of working memory, the structuring of information, and self-reflection. All of this contributes to maintaining adaptive functioning, which is key to learning and social integration (AAIDD, 2010).

Problem-solving thinking also develops during packing: the young person must decide how to place their items within the available space, recognizing that certain elements have priority (e.g., medications, hygiene products), while others are optional. This process also strengthens the practice of recognizing priorities and self-regulation (Zimmerman, 2000). During the task, the young person faces the necessity of adapting to time frames, which develops time-management skills and responsibility for the task.

Packing also has an emotion-regulating effect: the structured activity reduces anxiety stemming from uncertainty, supports mental preparation for camp, and provides an opportunity to become aware of positive feelings related to anticipation (Kuhlthau et al., 2010). The fact that the young person chooses their clothes and personal items contributes to the strengthening of identity and the expression of personal preferences, which is essential for supporting intrinsic motivation and self-acceptance (Ryan & Deci, 2000).

Hidden aims of the activity include the development of reading and visual interpretation skills, maintaining attention, strengthening hand-eye coordination, and practicing social skills, insofar as packing takes place as a joint task in the presence of a helper. The helper's mediation serves as a model for problem-solving thinking and the regulation of emotional reactions (Vygotsky, 1978). Thus the task is not only practical preparation, but a complex developmental tool that supports preparation for independent living and contributes to the long-term social integration of youths.

# Detailed description and implementation of the activity

Before starting the activity, the helper and the young person sit down together in a calm, undisturbed environment, where the tools needed for packing—the suitcase or backpack, the printed packing list, and the pencil—are within easy reach. The helper presents the list and draws attention to the fact that this document supports the packing process step by step, thereby reducing the chance of mistakes and increasing the possibility of independent decision-making. The visual elements of the list (pictures, pictograms, or photographs) help understanding and ensure cognitive accessibility even for those who can only partially interpret written text (Hodgdon, 1995; Mesibov & Shea, 2010).

The first step in the process is to review and discuss the list. The helper reads out the first item, then asks the young person whether they recognize the object, know where it is, and are able to prepare it independently. If the young person can find the given item independently (for example, a T-shirt, toothbrush, or towel), they do so, then return to the list, where they tick off the item. This act both serves as a success experience and ensures that the task is trackable, preventing cognitive overload. If the young person can perform the task partially, the helper gives guidance but does not perform the activity instead of them; if the young person requires full support, the helper demonstrates the step and, where possible, involves the young person in a part of the action (e.g., folding the clothing or placing it into the suitcase).

During the packing process, the helper continuously verbalizes the to-dos, thereby modeling the structure of thinking ("We've now found the shoes; let's check the list to see whether we've already ticked that off"). This technique supports the development of metacognitive skills and contributes to the emergence of internal structure experienced during task performance (Barkley, 2012). Over the course of the process, the young person's attention gradually turns to the organizational logic of the

activity: they recognize the sequence, they learn that underwear, hygiene products, and medications

occupy a prioritized place, while leisure items go into the suitcase in a later phase of packing.

In the final stage of packing, the helper and the young person look through the list together, check

whether every item has been placed in the luggage, and discuss where the items were placed,

thereby supporting usability during camp and independent personal care and dressing processes. In

certain cases, items receive unique markings (color code, name, letter, or icon) so that during camp

they will not be mixed up with the belongings of other participants. This is particularly important

for those who are not able to visually distinguish their own items from those of others, or for whom

memory retrieval is difficult (Verdonschot et al., 2009).

The packing process is not merely a physical preparation, but also a psychological preparation. The

list visualizes the transition toward camp: the young person senses that something new is beginning,

yet also experiences safety because preparation is taking place in a structured form. The process

contributes to reducing anxiety, forming a sense of control, and strengthening independence. The

helper's role is crucial in this process: they create the supportive atmosphere in which the young

person—according to their own abilities, yet authentically and actively—can take part in getting

ready.

**Required tools:** 

• a printed, easy-to-understand list of items to be packed, preferably with pictures/pictograms

• 1 pencil

**Number of participants:** individual task, but applies to every participant

**Helper:** one helper who knows the young person's belongings

**Steps:** 

1. we may even mediate what will be needed, before preparing the list

2. we print the list for each participant (see Appendix 4)

3. we go through the list with the young person (the more they do this alone, the better), and line

by line they read, place the appropriate item into the suitcase, then tick it off on the list.

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#### **Safety measures:**

It is important that the young person knows that these things are theirs and that they must bring them home as well. They must not be mixed up with those of the other residents during camp. It may be useful to mark one's own things if they are not recognized. It is good to have a checklist for the return trip as well.

## Reflection, evaluation, and psychological effects

Closing the packing activity does not only mean the technical checking of the task's completion, but also a reflective process with significant psychological and developmental value. During the evaluation of the activity, there is an opportunity for the participant to become aware of their own efforts and successes and to recognize the areas where further support or practice is needed. The process of reflection promotes self-knowledge, strengthens the sense of self-efficacy, and supports the development of a positive self-image (Zimmerman, 2000). The helper's role is once again crucial in this phase: they provide feedback in a way that reinforces the young person's sense of competence while motivating further development.

The primary form of evaluation is direct conversation, in which the helper asks the young person how they experienced the packing process, what was easy or difficult for them, and which step brought joy or posed a challenge. The goal is not performance evaluation, but the processing of experience and the awareness of positive emotions. At such times, the young person has the opportunity to express their emotions and articulate doubts or pride, which is an important part of creating psychological safety (Ryan & Deci, 2000).

A second level of evaluation is behavioral reinforcement. The helper praises the young person's independent decisions, independently executed steps, and attentive approach. This kind of positive feedback has been proven to contribute to the strengthening of intrinsic motivation and the more frequent occurrence of adaptive behaviors (Bandura, 1997; Wehmeyer, 2005). The process also provides an opportunity for the helper to gently draw attention to steps that require improvement, and to develop strategies together for the next time.

As part of reflection, difficulties that arise during packing are not interpreted as mistakes, but as learning opportunities. The helper helps the young person to formulate what caused, for example, the blockage (forgetting, distraction, emotional restlessness) and how these can be handled in the

future. This practice supports the development of metacognitive awareness, which plays a key role in achieving long-term independence (Flavell, 1979).

As part of the evaluation, a reflection question linked to the camp journal can also be built in, such as: "What did I pack that was useful?" or "What did I forget at home and will I need it next time?" This not only facilitates conscious planning but also reinforces the processing of experiences and emotions, thereby contributing to a deeper integration of camp experiences.

Overall, evaluating packing is a developmental psychological closing process that helps reinforce learning, reduces the sense of future uncertainty, and supports the formation of the young person's autonomous role in various situations of community life.

## **Evaluation table**

Developme nt Area	Concrete Manifestation During the Activity	Observation Focus	Signs of Progress
Self-care skills	The young person recognizes items on the list and selects them independently	Can they find their own clothes and belongings?	Needs less help, shows more confidence
<b>Executive functions</b>	Following the sequence of task steps, checking items off	Can they move in order and return to the list if needed?	Increased task persistence, fewer breakdowns
Visual comprehen sion	Using the visual checklist to support decision-making	Do they recognize the pictures/pictograms?	Faster recognition and response
Problem- solving	Seeking alternatives or asking for help when an item is missing	Can they make a decision when something is misplaced?	Initiates solutions independently
Social interaction	Communication with the facilitator, cooperative planning	Do they request help appropriately?	More cooperative behaviors
Emotional regulation	Managing frustration during the task	Do they remain calm or show signs of tension?	Increasing self- regulation, reduced anxiety
Time orientation	Adapting actions to the preparation sequence	Do they know when to start and finish the task?	More effective time management
Self- efficacy and confidence	Expressing satisfaction and sense of achievement at the end	Do they show pride in their accomplishment?	Improved self- confidence and desire for independence

# Summary

Preparing for camp and the packing process have outstanding significance in developing the independence and adaptive functioning of youths with intellectual disabilities. This activity is not

merely a practical preparation for a community program, but a complex pedagogical and psychological intervention that simultaneously strengthens self-care skills, supports the development of executive functions, reduces anxiety arising from uncertainty, and facilitates successful adaptation to real-life situations. The use of a structured visual list allows participants to take part in the task at their own pace and in accordance with their individual abilities, while the helper's mediation provides a safe framework for decision-making and learning without mistakes.

The packing process strengthens the sense of identity: the young person experiences that they have control over their own belongings and that it is their responsibility to ensure that these reach the camp and then return to the home environment. This taking of responsibility strengthens the sense of self-efficacy, which is demonstrably one of the most important predictors of successful adult adaptation in persons living with disabilities (Wehmeyer & Schalock, 2001). Packing creates the sense of transition between the home environment and community camping, thus preparing the young person to receive new experiences both cognitively and emotionally.

On this basis, it can be said that the pedagogical value of camp packing is not primarily provided by its logistical function, but by its developmental potential, which serves the long-term support of independent living, personal decision-making, emotional stability, and social integration. The built-in gradualness and visual support in the process make it possible for every participant to be an active contributor to preparation in line with their own abilities—which is the basis for ensuring that the experiences gained at camp truly become integrated into the development of personality and the formation of self-identity.

# **Making Biscuit Salami**

# Introduction and Theoretical Background

Joint food preparation—especially an easy and enjoyable activity like making biscuit salami—holds a prominent place among developmental pedagogical and sociotherapeutic methods. The process of baking/cooking is not merely a gastronomic activity but an experiential pedagogical tool with complex developmental effects that simultaneously activates young people's cognitive, motor, social, and emotional functions (Schalock et al., 2002). Following the steps of a recipe provides a

structured framework that creates safety for participants with intellectual disabilities, since they take part in the joint work through a clear sequence and visually trackable tasks (Gönczi, 2015).

During the activity, the system of executive functions develops—including attentional control, planning, memory, and problem-solving. Following a recipe supports sequential thinking: the way each step builds on the previous one promotes the recognition of cause–effect relationships and prevents cognitive overload (Baddeley, 2000). The biscuit-salami recipe is prepared with easy-to-understand (E2R) communication (simple symbols and text), thereby providing cognitive accessibility also for young people with limited reading skills.

The social integrative function of joint food preparation is also outstanding: teamwork, task-sharing, and attending to one another support the development of cooperation skills and strengthen the sense of belonging to the community. The division of tasks—e.g., who breaks the biscuits, who mixes the base, who reads the next point of the recipe—creates opportunities for every participant to feel competent and to experience the joy of contributing (Ryan & Deci, 2000).

Sensory experiences—such as perceiving smells and textures or the motions of mixing—stimulate sensory integration and can be particularly important for young people with autism spectrum disorder or sensory processing difficulties (Howlin, 2005). During the activity, participants come into contact with the materials, thus gaining experience nonverbally as well, which reduces anxiety and promotes emotional regulation.

At the end of joint food preparation, the finished biscuit salami also has an immediate reward function. Eating a self-made dish increases self-esteem and intrinsic motivation, reinforces the sense of self-efficacy, and the feeling of "I can do it," which is fundamental to the development of independence (Bandura, 1997).

# Aim and Developmental Impact

The primary aim of making biscuit salami is not simply to prepare a delicious food together, but to engage participants actively in a structured, collaboration-based process that develops their cognitive, social, and emotional skills in complex ways. A key developmental goal of the activity is that young people—according to their abilities, independently or with facilitation—take part in the joint creation, thereby experiencing the joy of cooperation, the feeling of contributing to shared success, and a sense of self-efficacy (Bandura, 1997).

The step-by-step structure of the task promotes the development of cognitive functioning, particularly attentional control, memory, and logical thinking. Using an easy-to-understand recipe provides visual cues that enable young people to follow the task even if they struggle with reading or text comprehension (Gönczi, 2015). Progress tracked by ticking off steps supports self-monitoring and contributes to understanding temporal structure, which is especially significant for participants with intellectual disabilities in maintaining a sense of safety (Schalock et al., 2002).

The activity's social developmental impact is particularly important: during joint cooking, participants attend to one another, discuss tasks, share roles, and communicate verbally or nonverbally. This process strengthens group cohesion, develops social interaction, and reduces feelings of isolation. The collective nature of food preparation promotes the development of a positive social identity, as young people experience that they can successfully carry out a goal-oriented activity together with others (Ryan & Deci, 2000).

Furthermore, the activity has sensory and emotional self-regulation functions. The touch, smell, and texture of the ingredients can be relaxing while supporting sensory integration, especially in autism spectrum disorder (Howlin, 2005). The success experienced at the end of the task—eating the finished dish—as a tool of immediate positive reinforcement increases intrinsic motivation and contributes durably to the development of self-confidence.

Overall, making biscuit salami is not merely a gastronomic activity, but a complex developmental method that simultaneously serves learning, social, emotional, and sensory development while providing genuine joy for participants.

# Process of the Activity

Making biscuit salami is a structured, interactive process that begins even before the activity itself with the formation of teams. Participants are divided into groups of 2–4 people, with one or two helpers linked to each team who know well the young people's communication mode, cognitive abilities, and social functioning. This division ensures the possibility of personalized support while allowing space for practicing independence, as helpers provide only as much assistance as is necessary for successful completion (Ryan & Deci, 2000).

The first step of the process is presenting the recipe. Applying easy-to-understand communication (E2R), the recipe is available in both visual and textual form, with clear pictograms and options for

marking. Young people can tick off the tasks already completed, which strengthens the sense of competence and awareness of progress. Reading the recipe aloud together is in itself developmental: it practices reading, speech comprehension, and divided attention within the group.

In the practical section, team members discuss who will take which task: breaking biscuits, melting butter, measuring cocoa, mixing, shaping. This division of roles promotes the development of social responsibility while every participant makes a concrete and valuable contribution to achieving the shared goal. The sequences of movements—e.g., breaking the biscuits or shaping the mass by hand—provide sensory experiences that support the development of sensory processing and provide calming sensory feedback (Howlin, 2005).

During the activity, team members communicate continuously with one another and with the helpers. In addition to speech, they can express their needs with gestures, facial expressions, or augmentative communication tools, which promotes growth in communication confidence. Joint decision-making—e.g., which form to choose for shaping the finished "salami"—supports the development of autonomy and self-expression (Deci & Ryan, 2000).

Once the mixture is ready and the young people have shaped the biscuit salami, the creation is placed in the refrigerator to rest overnight. This period also has a psychological function: it teaches participants about time delay—that the reward is not always immediate but becomes enjoyable over time—which is crucial for the development of frustration tolerance and self-control (Bandura, 1997). Waiting is an active part of the experience and enhances interest in the finished treat.

When the dish is eaten the next day, participants receive feedback that their work was successful and can actively take part in the evaluation: they can share which step they enjoyed most, how they felt in the team, and what they learned from the joint work. This reflective process reinforces the cycle of experiential learning (Kolb, 1984), fostering the development of self-reflection and emotional awareness.

# Recipe: Biscuit Salami

See the pictorial guide in Appendix 5.

## **Ingredients (for 1 team)**

- 250 g ground biscuits (or biscuits crushed by hand)
- 100 g butter or margarine
- 2 tbsp cocoa powder
- 100 g powdered sugar
- 100 ml milk
- 1 tbsp rum aroma or vanilla aroma (optional)
- 50 g raisins or chopped dried fruit (optional)
- Plastic wrap or baking paper for shaping

## Required tools

- Mixing bowl
- Knife or rolling pin for crushing biscuits
- Spoon or spatula
- Measuring cup
- Plastic wrap / baking paper
- A tray for chilling

## **Number of participants**

• 2–4 people + 1 helper

**Preparation time:** approx. 15 minutes

Work time: approx. 30 minutes

## **Resting:** 12 hours in the refrigerator

## **Steps:**

#### 1. **Team formation**

• Each participant receives a task: biscuit crushing, measuring, mixing.

## 2. Preparing the biscuits

• Break the biscuits into smaller pieces by hand or with a rolling pin in a bag.

## 3. Preparing the butter-cocoa base

- Melt the butter.
- Add cocoa, powdered sugar, and milk.
- Stir until smooth and lump-free.

## 4. Mixing

- Pour the cocoa mixture over the biscuits.
- Add raisins or fruit.
- Mix thoroughly by hand or with a spoon.

## 5. Shaping

- Place the mass onto plastic wrap.
- Shape into a log.
- Wrap tightly in the plastic wrap.

## 6. Chilling

- Place the log in the refrigerator.
- Let it rest at least overnight.

#### 7. **Serving**

• Slice the next day and taste together.

#### **Safety Notes**

- Handle hot butter carefully.
- The use of a knife or rolling pin must be supervised by the helper.
- Placing in the refrigerator should be done by the helper.

## Reflection and Evaluation

The concluding phase of making biscuit salami is not only about eating the dessert, but about the awareness and integration of the experience, which plays a fundamental role in the learning process of young people with intellectual disabilities. During the reflective phase, the young people look back on the entire activity and, with the help of guided conversation, articulate their feelings, experiences, sources of success, and the difficulties they encountered.

An important developmental function of evaluation is that it raises awareness of the sense of belonging to the group: participants experience that in the joint work everyone had a role and that the team's success could only be achieved through cooperation. This contributes to the development of social competencies and the formation of positive self-esteem (Ryan & Deci, 2000). The helper supports young people with questions so they can say which task they completed independently, where they asked for help, and in what they felt successful. This reinforces the experience of self-efficacy, which is the basis for the long-term development of independence (Bandura, 1997).

Eating the finished dish provides immediate feedback on the work: positive reinforcement that, based on behavioral psychology principles, strengthens the intention to participate and future cooperation (Skinner, 1953). The shared tasting experience creates emotional bonds among group members while allowing every participant to feel proud of their own work and the common result.

A highlighted element of reflection is social feedback. Young people can share with one another which step they enjoyed most, which ingredient's smell or texture they liked best, and what they would do differently next time. This conversation strengthens metacognitive processes, i.e., the ability to think about their own experiences and formulate lessons learned (Schalock et al., 2002).

Finally, tidying up and washing the tools are consciously part of the methodology: as an element of preparing for independent living, they develop responsibility, the ability to close a task, and an overview of the entire workflow. Thus the closure of the task does not end with the cooking, but becomes an integrated part of the whole process, supporting the formation of routines indispensable in everyday life.

## **Evaluation Table**

<b>Evaluation Aspect</b>	Observable Behavior	Skill Area Developed	<b>Evaluation Method</b>
Task following	Executing recipe steps in the correct order	Cognitive functioning, executive functions	Observation and checklist on the recipe
Independence	Completing tasks independently or partially independently	Autonomy, self-efficacy	Facilitator feedback
Teamwork	Involving other participants, sharing tasks	Social skills, cooperation	Group reflection
Communication	Verbal or non-verbal communication during the activity	Expressive skills, interaction	Observation
Sensory participation	Touching materials, noticing smells	Sensory integration, emotional regulation	Verbal / non-verbal reactions
Self-control and delay of gratification	Waiting patiently for food to be ready	Frustration tolerance, impulse control	Observation
Positive experience and motivation	Expressing joy or pride when seeing the finished food	Emotional well-being, self-esteem	Emotional feedback

# Summary

Making biscuit salami as a developmental activity provides both joyful experience and complex pedagogical impact for young people with intellectual disabilities. The structured, easy-to-understand steps of the activity create safety and predictability while supporting cognitive development, sustained attention, and independent task performance. During joint cooking, social skills, cooperation, and communicative activity develop, and sensory experiences contribute to emotional regulation and the formation of self-soothing mechanisms. The success experienced at the end of the activity and the joy of eating together strengthen intrinsic motivation and the sense of self-efficacy, which are among the most important psychological foundations of social integration and independent living. As a result, making biscuit salami is not merely a culinary experience, but a

complex developmental tool that effectively supports participants' personality development, community inclusion, and emotional well-being.

## **Candle Holder**

## Introduction and Theoretical Background

Working with clay is an ancient, universal activity that not only develops craft skills but also has complex therapeutic effects on cognitive, emotional, and sensorimotor levels. The flexible, easily moldable nature of clay enables young people with intellectual disabilities to connect tangibly to the creative process while producing an independent product that provides immediate feedback about the expression of their abilities.



Source: own photo

Clay work is a particularly effective developmental tool because it simultaneously activates tactile perception, fine-motor coordination, and visual–spatial thinking—areas that often require development for individuals with intellectual disabilities (Ungvaryné & Varga, 2019). The manual work inherent in crafts stimulates neural plasticity and contributes to the development of motor pathways (Gómez & Rubio, 2015), while the repetitive nature of the activity has a calming, anxiety-reducing effect (Malchiodi, 2012).

Making a candle holder serves a concrete goal that structures the activity: the participant is not merely touching and shaping clay but creating a functional object. This goal-oriented work enhances the sense of self-efficacy (Bandura, 1997) and supports the experience of autonomy through the feeling of competence (Ryan & Deci, 2000). The detailed, easy-to-understand instructions (E2R—Easy-to-Read communication) help with understanding and following the task, thereby strengthening sequential thinking and executive functions such as planning ahead, sustaining attention, and self-monitoring.

Carrying out the activity individually provides opportunities for self-expression and personal decision-making, while the helper's presence ensures a controlled environment and support as needed. Ceramics is a structured activity in which the possibility of error is not threatening, since

the material can be reshaped—this reduces performance anxiety and fosters the development of emotional safety (Hinz, 2009).

Beyond developing dexterity, force modulation, concentration, and spatial orientation, the psychological significance of creation is especially important: participants experience that they can shape their environment and thus gain a positive sense of control, which is one of the prerequisites for preparing individuals with intellectual disabilities for independent living (Schalock et al., 2002).

## Aim and Developmental Impact

The primary aim of making a candle holder is for young people with intellectual disabilities to create a functional object as independently as possible by following structured steps, thus experiencing the joy of independent creation and the success that follows task completion. The goal is not artistic performance but the development of a sense of competence and self-efficacy (Bandura, 1997), while participants practice, at their own pace and in a safe environment, the skills also needed for everyday life.

The activity's developmental impact is multi-level and complex:

# 1. Cognitive development

The detailed, easy-to-understand guide leads participants through the workflow step by step, thereby strengthening sustained attention, memory functions, recognition of logical sequence, and working memory (Baddeley, 2000). During task execution, participants learn to distinguish phases (rolling out, shaping, joining), which develops sequential thinking and executive functions (Ungvaryné & Varga, 2019).

# 2. Sensorimotor development

Touching, pressing, rolling, and shaping clay activates fine motor skills, hand-eye coordination, muscle force modulation, and sensory integration—crucial for maintaining and developing the skill level of young people with intellectual disabilities (Gómez & Rubio, 2015). The repetitive, rhythmic nature of the activity is calming, reduces tension, and supports the development of self-regulation (Hinz, 2009).

# 3. Social and emotional development

Although the candle holder is made individually, working in a shared space allows spontaneous social interactions to emerge. Cooperation with the helper, observing each other's work, and giving group feedback contribute to social learning and social integration. Producing a tangible product increases self-esteem and intrinsic motivation, as the young person experiences being able to create value with their own hands (Ryan & Deci, 2000).

# 4. Development of functional independence

The process of making a candle holder is similar to everyday activities (kneading, shaping, folding) that form the basis of independent living. Successful completion reinforces belief in one's self-care abilities and prepares for learning practical skills related to adult life (Schalock et al., 2002).

## Process of the Activity

The process of making a candle holder follows structured, well-prepared steps designed to ensure that participants work as independently as possible while practicing motor, cognitive, and social skills in a safe, supportive environment. Although carried out individually, the activity takes place in a shared space, fostering spontaneous social interaction and a sense of community.

Participants first settle comfortably around the work surface, each choosing a position where they can properly roll and shape the clay while remaining within the helper's line of sight. The personal workspace provides boundaries yet is visually connected to the group, supporting a simultaneous individual-and-collective experience.

At the beginning, the helper presents a sample candle holder and distributes step-by-step, easy-to-understand instructions. The guide includes the main stages of creation with pictograms, simple words, and tick boxes. This visual support enables the activation of sequential thinking, aids memory retention, and focuses attention on the next action.

Participants then each receive a piece of clay and begin by kneading it. This establishes the rhythm of the work, activates fine-motor skills, and has a stress-reducing, tension-relieving effect. While kneading and shaping, young people focus on their own work but can also see others, which leads to positive model learning—especially for those who learn less easily from verbal instructions (Bandura, 1997).

The helper intervenes only if the young person gets stuck or reaches a stage where guidance is

needed to preserve the correct form. Prioritizing independence ensures a sense of competence,

while immediate support at points of difficulty maintains motivation and prevents frustration.

Following the instructions, participants roll out the clay and begin forming the body of the candle

holder using a template or freehand shaping. Attention is paid to joints, creating a stable base, and

aesthetic elements—not only developing visual skills but also helping to understand the material's

properties and gravity, which underlie technical and functional thinking.

At the end, each participant inspects their work and makes minor adjustments if needed. The helper

then collects the greenware candle holders for drying and praises participants for independence,

perseverance, and creativity. With this closure, making the candle holder becomes not only a

process of creation but also a tool for strengthening positive self-image and self-identity.

"Recipe": Making a Candle Holder from Clay

Materials / tools

• Air-dry clay or ceramic clay

• Rolling pin or cylinder

• Bowl of water (for smoothing)

• Modeling tools (stick, end of a brush)

• Skewer or candle-sized rod to form the opening

• Sponge

• Plastic sheet or board as a work surface

**Number of participants** 

• 2–4 people + 1 helper

Time required

• Preparation: 5 minutes

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- Forming: 40–50 minutes
- Drying: 3–4 days

## **Numbered steps**

## 1. Preparation

- Everyone receives a piece of clay.
- Prepare the work surface.

## 2. Preparing the clay

• Knead the clay to remove air.

## 3. Rolling out a slab

• Use a rolling pin to form a slab about 1 cm thick.

## 4. Forming the base

• Cut out a circular or square base.

## 5. Forming the side wall

- Roll a separate strip and attach it to the edge of the base.
- Smooth the joints with a wet finger.

## 6. Making the candle opening

- Use the rod to pierce/form the cavity.
- Ensure the candle will stand securely.

## 7. Smoothing and decorating

- Smooth the surface with a damp finger or sponge.
- Create patterns (with fingers, a stick, or a stencil).

#### 8. **Drying**

• Leave the finished piece to dry in a well-ventilated place for 3–4 days.

## **Safety Notes**

- Tools must not be sharp.
- The helper should monitor the amount of clay used and the stability of the piece.
- Candles may only be used after firing and glazing!

See the pictorial guide in Appendix 6.

## Reflection and Evaluation

Closing the candle-holder activity is of particular importance for psychological development, as reflection allows for awareness of the experience, reinforcement of success, and stabilization of the sense of self-efficacy. Immediate feedback focuses on individual performance: the helper values perseverance, independence, creativity, and the ability to follow instructions. This kind of positive reinforcement not only motivates future activities but also supports the growth of intrinsic motivation and self-confidence (Ryan & Deci, 2000).

The reflective conversation offers participants a chance to share their experience of the process:

- How did they feel while working?
- Which step was easy or difficult?
- What were they able to do independently?
- What did they learn about clay, movements, or their own abilities?

Such self-reflection develops metacognitive skills—the ability to think about one's own experiences, draw conclusions, and evaluate performance (Schalock et al., 2002). In parallel, group feedback strengthens social connectedness and embedding in the community experience—one of the most important psychological foundations of social integration for individuals with intellectual disabilities.

During drying and firing, participants experience the importance of time delay and patience. When they later see the finished, fired, and glazed candle holder, the success linked to prior effort multiplies and has a long-term effect on self-esteem. This phase is especially important for strengthening the emotional bond to one's own product, which underlies growing up, identity development, and preparation for independent life (Bandura, 1997).

An important part of reflection is helping participants recognize that they:

- were able to use new skills,
- were able to complete a task,
- are able to create value with their own hands.

This awareness brings joy and builds an internal sense of control, contributing to psychological well-being and improved quality of life.

## **Evaluation Table**

Evaluation Aspect	Observable Behavior	Area Developed	Evaluation Method
Task adherence	The participant follows the written steps and does not skip sections	Cognitive functions, executive functioning	Observation, checkable list
Independence	The participant kneads, shapes, and adjusts the clay independently, asking for help only when needed	Autonomy, self-efficacy	Facilitator feedback
Fine motor coordination	Clay shaping is done with precise, controlled movements	Sensorimotor integration	Observation of motor performance
Attention and persistence	The participant remains focused and completes the activity without quitting	Attentional control, frustration tolerance	Time-based observation
Creativity	Unique patterns and forms appear	Self-expression, visual perception	Visual evaluation of the finished object
Emotional reaction	Expresses joy or pride about the finished creation	Self-esteem, emotional regulation	Verbal / non- verbal feedback
Group interaction	Helping each other or acknowledging peers' work	Social competence, social learning	Observation of group dynamics

## Summary

Making a candle holder from clay is a developmental activity that simultaneously increases the independence of young people with intellectual disabilities, activates cognitive functioning, supports sensory integration, and strengthens emotional well-being. The process of shaping clay uniquely combines experiential learning with fine-motor development, while providing a positive emotional experience through a visible, immediate result. Following well-structured steps develops executive functions and self-regulation, and the finished object is tangible proof that the young person can create value independently. Thus, this activity is not merely a creative pastime, but a methodologically grounded developmental tool with therapeutic value that contributes to strengthening agency, autonomy, and social inclusion.

# Summary of the Handbook's Application and Methodological Guide

The purpose of this handbook is to provide professionals working with young people with disabilities with a comprehensive, scientifically grounded, and practice-oriented toolkit that supports participants' cognitive, emotional, social, and physical development while creating space for self-expression, experiential learning, and community inclusion. The activities presented—whether music therapy adaptations, craft workshops, elements of equine-assisted therapy, camp self-awareness tasks, or everyday life skill-building exercises—are built on a shared perspective: unfolding the individual's abilities, progressively strengthening independence, and supporting inclusive community participation.

The development of people with disabilities is not merely rehabilitation or remediation but a complex process based on human dignity, self-determination, and social participation (Könczei & Hernádi, 2015). A core principle of the activities presented here is that every participant should be present as an active agent rather than a passive recipient. Tasks are adaptable to different ability levels, enabling inclusive participation: those who can work independently may do so; those requiring guided support can receive appropriate instruction; those able to engage only in partial tasks can still experience the joy of co-creation.

This handbook is suitable for young people with intellectual disabilities, autism spectrum disorder, Down syndrome, or other developmental difficulties, as the activities employ a multisensory approach. Music, visuality, movement, touch, colors, and shapes all provide stimuli that activate the nervous system, stimulate attention, and develop fine motor skills and sensory integration (Gerevich, 2009). In parallel, creative activities—such as ceramics, sewing, clay work, or making scented sachets—offer opportunities for nonverbal emotional expression, stress reduction, and strengthening self-regulation.

One of the handbook's most important added values is the application of experiential learning principles. Activities are not conducted on a purely theoretical level; they are based on real experiences: participants encounter the experience of success, creation, participation, and roletaking, which has been shown to increase self-efficacy and self-confidence (Csíkszentmihályi, 2014; Wehmeyer, 2005). Group music-making, the use of color-notation, maintaining a camp

journal, or the packing process are all structured experiences that contribute to personality development, the shaping of social behavior, and preparation for community life.

The handbook's practical structure allows professionals or helpers to proceed step by step while flexibly adapting to individual needs. The tasks do not serve developmental goals alone; they provide meaningful experiences, activate intrinsic motivation, and help ensure that young people with disabilities appear as genuine "co-creators" in shaping their own lives. The instructions support a structured learning process that has been shown to effectively reduce cognitive load and foster success-oriented behavior (Mesibov & Shea, 2010).

It is of particular importance that the handbook is complemented by multimedia elements—photographs, pictograms, color codes, and video links. These are not merely illustrative tools; they form an active part of the learning process because visual information can be interpreted more quickly and retained more easily than verbal instructions (Hodgdon, 1995). With QR codes or video links, participants receive immediate feedback on what the end product looks like, which steps make up the process, and what is expected of them in the various activities. This is especially important for those with visual learning preferences or those who need repeated reinforcement to feel secure with tasks.

The handbook is not a closed protocol but a developmental framework that users can customize to the needs of their own communities, institutions, and participants. Activities can be varied according to available time, participants' abilities, emotional state, and group dynamics. The emphasis in all cases is on learning through experience and on ensuring that development becomes integrated into everyday life in the long term.

During use, continuous documentation and reflection are recommended. After completing activities, it is advisable to discuss experiences, observe emotional reactions, record progress, and identify any further support needs. This process not only supports evaluation but also strengthens young people's self-reflection and helps maintain intrinsic motivation (Ryan & Deci, 2000).

A key methodological feature of the handbook is that it is not intended exclusively for therapists or special educators; it serves as a broadly applicable tool for all professionals, helpers, volunteers, and family members who support young people with disabilities in everyday life. The activities can be flexibly integrated into a range of institutional settings—such as day services, equine-assisted

therapy centers, social employment workshops, residential facilities, or youth camps—and can also be used in individual or group therapy.

Professionals' roles are primarily facilitative: the goal is not to complete the task for the participant but to support them in experiencing independent action to the fullest extent of their abilities. The helper's task is to recognize the participant's current state, motivation, and capacity and tailor the mode of involvement accordingly. This approach aligns with contemporary habilitation and inclusive pedagogy guidelines, which hold that the key to development is "participation competence," i.e., experiencing that a person with a disability is an active participant in their own life and community (Illyés, 2016; Schalock et al., 2010).

In practical application, a multimodal approach is recommended, based on the combined use of the following elements:

- visuality (color codes, images, videos, QR codes),
- auditory elements (music, instructions, sound recognition),
- movement and bodily awareness (equine-assisted therapy, movement meditation),
- tactile experience (clay, textiles, natural materials),
- emotional engagement and community interaction (group singing, team tasks, camp events).

This approach enables participants to process information through multiple channels and integrate learning more effectively into long-term memory (Gerevich, 2009).

The handbook is expanded with video links and visual appendices that provide practical models for implementing the activities. Video content is particularly important because it enables learning by imitation—one of the most effective forms of learning among young people with intellectual disabilities (Bandura, 1977). Using QR codes, participants can access the actual flow of the exercise immediately, which reduces instructional load and increases experiential engagement.

The handbook functions not only as a developmental tool but also as a connection point between families and institutions. Parents, guardians, and supporting professionals can all use it to better understand young people's developmental needs and to provide consistent support across different life situations—be it preparing for camp, community participation, or self-expression. This collaborative approach strengthens social inclusion, a priority at the European Union level as well (European Commission, 2020).

The handbook's long-term potential lies in supporting sustainable development, institutional training, and methodological innovation alike. The activities are not designed for one-off use but are built as a modular system that can be repeated, expanded, adapted, and documented. This allows professionals to track developmental trajectories, collect comparable data, and incorporate lessons learned into future development plans or institutional strategies.

The key to sustaining the multimodal, experiential approach is maintaining participation and motivation, which requires ensuring variety and adaptability. Activities can be implemented at different difficulty levels to guarantee inclusion for all participants, regardless of the degree of disability. This approach is consistent with the European Union's disability strategy, which mandates promoting accessibility, equal opportunities, and active social participation for all citizens (European Commission, 2021).

Using the handbook helps young people with disabilities become visible, value-creating members of their communities. The objects created, musical productions, or camp experiences can be presented at public events, exhibitions, videos, or on social media, thereby increasing social sensitivity and reducing stigmatization. Such public presence not only strengthens community integration but also positively impacts young people's self-esteem and identity (Gerevich, 2009; Illyés, 2016).

Ultimately, the handbook serves as a bridge between theory and practice, professional knowledge and personal experience, and individual skill development and community participation. The methods it contains are intended to ensure that young people with disabilities are not merely recipients of care but appear as active, acting, creative participants in shaping their own lives. Supporting this is not only a pedagogical and therapeutic task but also a matter of social responsibility and a shared European value.

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# **Annexes**

Annex 1: Colour noting system

Annex 2: Camp Journal

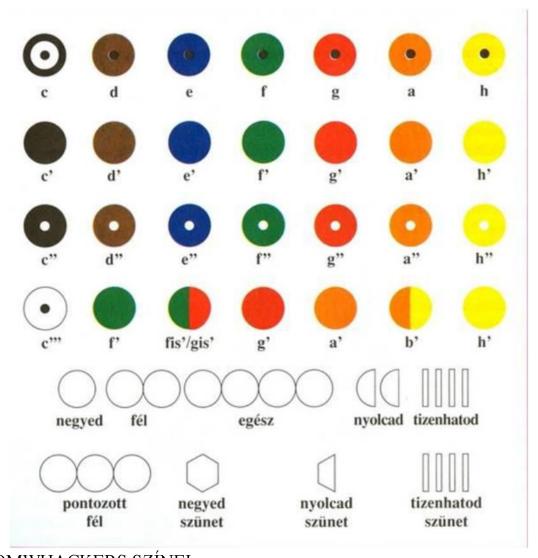
Annex 3: What did I see? list

Annex 4: Packaging list

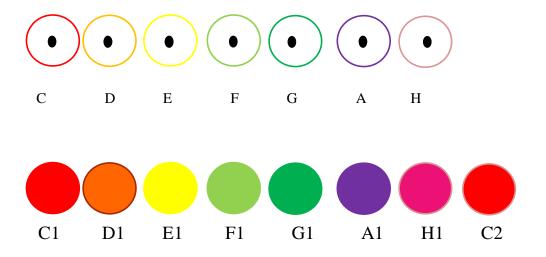
Annex 5: Making biscuit salami - pictorial guide

Annex 6: Candle holder - pictorial guide

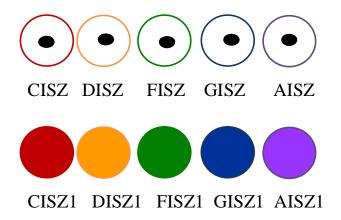
Annex 1
SZÍNKOTTÁS HANGOK, HANGJEGYÉRTÉKEK ULWILA MODSZERREL



# BOOMWHACKERS SZÍNEI



#### FELEMELT, LESZÁLLÍTOTT HANGOK



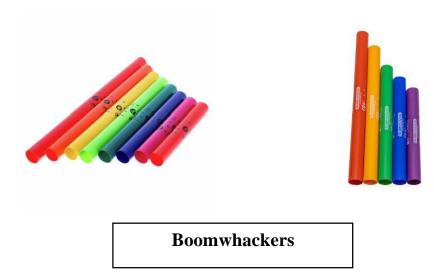
#### HARANGOK SZÍNEI



#### **Boomwhacker**

A boomwhacker az ütős hangszerek családjába tartozó hangszer. Ezeket a különböző hosszúságú, és színű műanyag rudakat az 1990-es években találta fel az amerikai származású Craig Ramsell. A hangszerek használatához a színkotta ismerete szükséges, hiszen a különböző színek itt is a különböző hangokat jelölik. A boomwhacker megszólaltatásához szükséges egy szilárd felület, egy szék, asztal vagy nemes egyszerűséggel a kezünk vagy lábunk, ugyanis ezek a rudak ütés hatására adnak ki hangot.

Ezen hangszereket zeneoktatásban alkalmazzák főleg gyerekeknél, illetve zeneterápiában is használatos.



#### Színes harangok

A harangok is, akárcsak a boomwhacker a színkottán alapszanak. Használatuk azonban annyiban különbözik, hogy ütés helyett rázással lehet elérni a hangszerek megszólaltatását. A kitartott hangok szebben kivitelezhetőek velük, mivel addig szólnak, ameddig a használója rázza őket. Szintén használatos gyermekek zenei oktatásában és zeneterápiában is.



Színes harangok

#### Hangjegy értékek

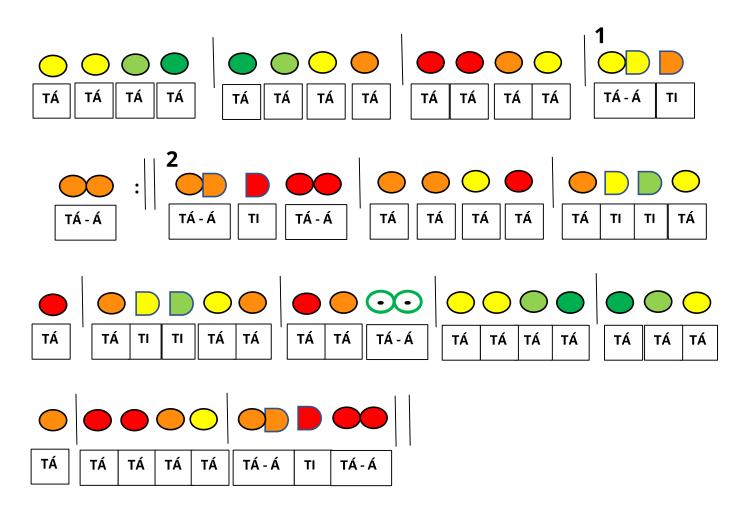
- egészhang: 

  TÁ-Á-Á-Á 

  4 KOPOGÁS
- félhang ponttal: TÁ-Á-Á = 3 KOPOGÁS
- félhang: J = TÁ-Á = 2 KOPOGÁS
- negyedhang: J = TÁ = 1 KOPOGÁS

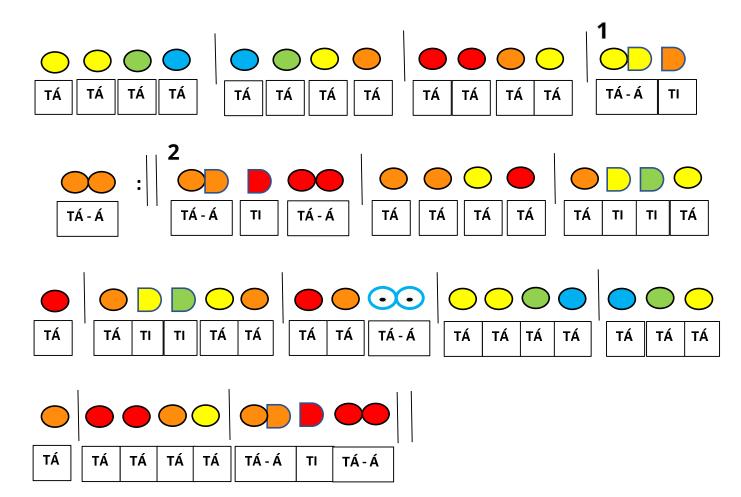
#### Beethoven: Örömóda

#### **Boowhackers-re**



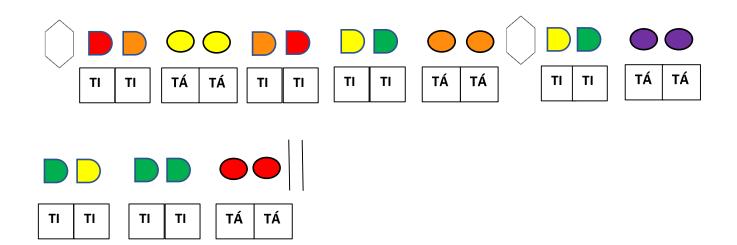
#### Beethoven: Örömóda

#### Harangokra



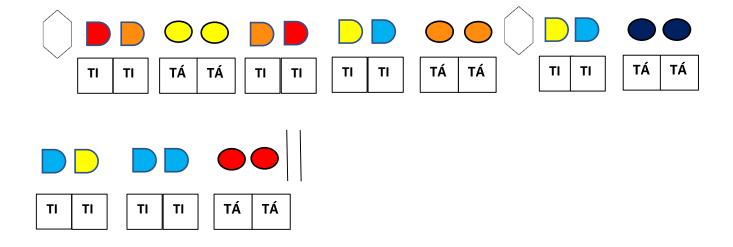
## Mária altatója (refrén)

#### **Boowhackers-re**



# Mária altatója (refrén)

## Harangokra



# Tábori napló

Tulajdonos neve:

Magyarország, Szarvaskő, 2024. május 6-10.

Hogy képzeled el te ezt a tábort? Hogy néz ki?

Rajzold le!



Helyszín (HOL?	van ez a tábor	):ország neve	<b>9</b>	

helység neve:



## Indulás dátuma:

MIKOR? indultál a táborba:

év	.hónap	.nap
nap neve:		
óra		

#### Ezzel utaztam:



## Együtt utaztam velük (neve):



#### Térkép az útról (a kék útvonalon mentünk):

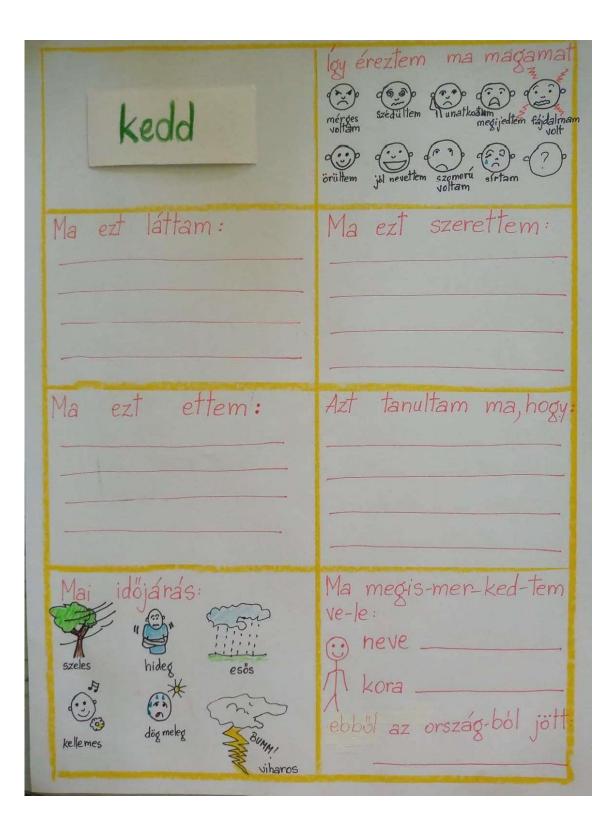
Kedvenc része az útnak:



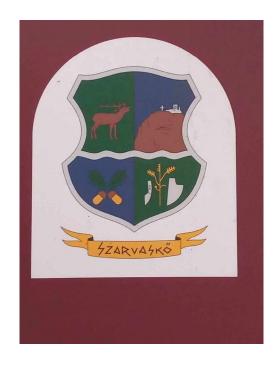
Utazáskor az volt jó, amikor

Rossz része az útnak:
Utazázkor az rossz volt ,amikor

Az úton a buszból ész-re-vet-tem (8 pipáért jár egy fagyi)
repülőt
traktort
szekeret
villamost
biciklis fiút
3 gólyát
szamarat szamarat
vonatsineket
3 rendőrt
3 tehenet



#### Ez itt szarvaskő címere:



Mit láttál a szarvaskői vár	rból lenézve? Rajzold vagy írd le.





Ezeket gyakran hallottam a táborban:			
Ezeket a cuccokat felejtettem otthon:			
Ma ezt üzenem haza:			

Ma ezt uzenem naza:

#### INDULUNK HAZA



Cél (HOVA? megyünk haza):	ország neve
	helység neve:



#### Indulás dátuma: MIKOR? indultál haza:

év	.hónap	.nap
nap neve:		
óra		

#### Ezzel utaztam:



## Térkép az útról (a kék útvonalon mentünk):



Kedvenc része az útnak:
Utazáskor az volt jó, amikor
Rossz része az útnak:
Utazázkor az rossz volt ,amikor

Az út	ton a buszból ész-re-vet-tem (8 pipáért jár egy fagyi)
	Kocsiszállítót
	traktort
	Mekit
	villamost
□ b	iciklis fiút
	3 gólyát őzet
ta	artálykocsit
	3 folyót

Egy pillanat, amire mindig emlékezni akarok Rajzold / írd le!

## Mit láttam?

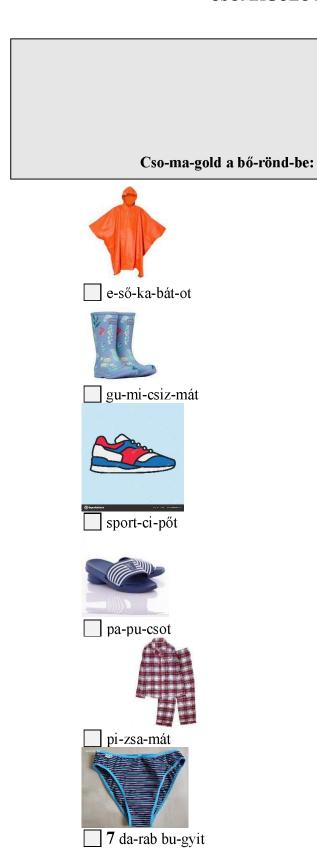
Tulajdonos neve:

Magyarország, Szarvaskő, 2024. május 6-10.

Az úton a buszból ész-re-vet-tem (8 pipáért jár egy fagyi)
repülőt
traktort
szekeret
villamost
biciklis fiút biciklis biciklis biciklis biciklis
3 gólyát
szamarat
vonatsineket
3 rendőrt
3 tehenet

Az úton a buszból ész-re-vet-tem (8 pipáért jár egy fagyi) Kocsiszállítót traktort Mekit villamost biciklis fiút 3 gólyát tartálykocsit 3 folyót 3 hida

#### CSOMAGOLÓ LISTA





7 da-rab zok-nit



**6** da-rab rö-vid ujj-ú pó-lót



**2** da-rab rö-vid nad-rá-got



4 da-rab hosz-szú uj-jú blú-zot



**3** da-rab hosz-szú nad-rá-got



**2** tö-rül-kö-zőt





gyógy-sze-re-ket



**2** kár-tya-já-té-kot



ka-la-pot



Cso-ma-gold a ne-sze-szer-be:



us-für-dőt



fog-ke-fét



fog-pasz-tát



be-té-tet



zseb-ken-dő-ket



dezodort



#### Cso-ma-gold a ki-csi há-ti-zsá-kod-ba:



szend-vi-cset

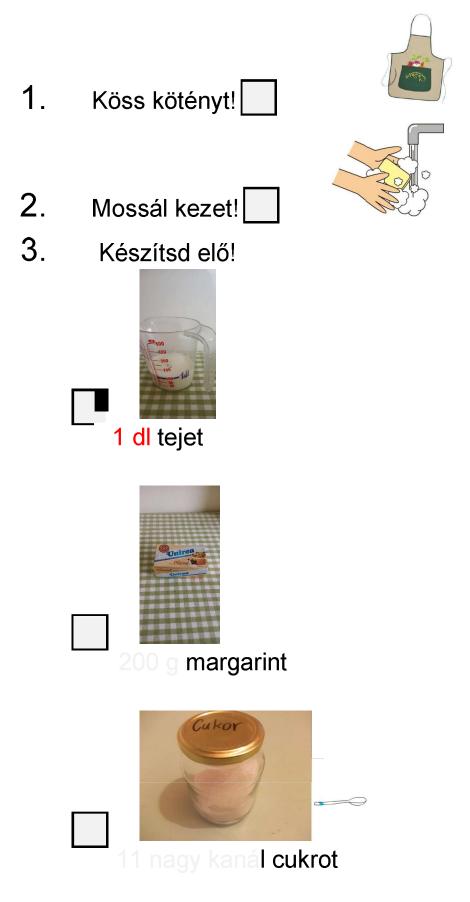


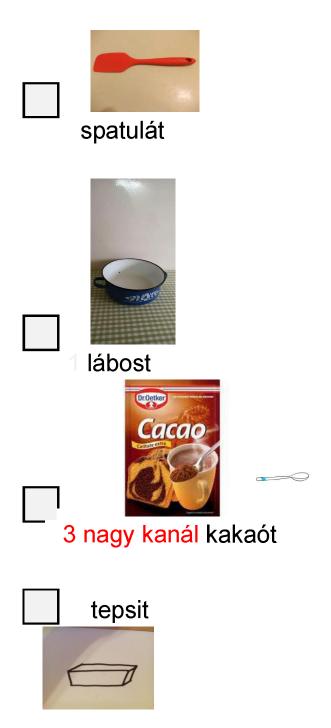
vi-zet



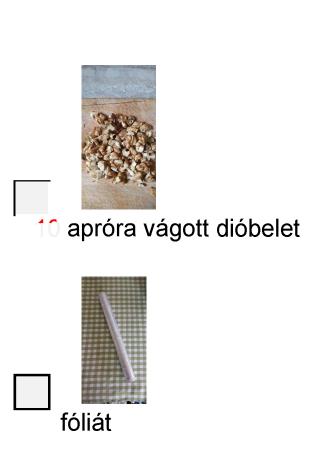
zseb-ken-dőt













Tördeld a kekszet apró darabokra!



5. Kapcsold be a tűzhelyet!

6. Tedd a lábosba a tejet.

Tedd a lábosba a kakaót.

Tedd a lábosba a cukrot.

Tedd a lábosba a margarint.



7.

Tedd a lábost a tűzhelyre.

A lábos forró.

Viselj védőkesztyűt.

Kavargasd a masszát.

Vedd le a lábost, ha elolvadt a margarin.

- 8. Kapcsold ki a tűzhelyet.
- 9.

Tedd a lábosba a mazsolát.

Tedd a lábosba a diót.

Tedd a lábosba a kekszet. Tedd a lábosba a rumot. Kavard össze.



10. Tegyél a tepsibe fóliát.



10. Tedd át a masszát a tepsibe.

Nyomkodd bele a tepsibe.



11. Hagyd a masszát meghűlni.

A hideg masszát tedd a hűtőbe.

3 órát hűtsed.

## 12.Rakj rendet.





13.Oszd meg a kekszszalámi	t másokkal! 🔲 lzlik 😋
Jó étvágyat!	Nem szeretem

# Gyertyatartó agyagból



1.	Kös	ss kötényt!	
2.	Ter	rítsd le a rongyodat!	
<u> </u>			
<b>S</b> .	ve	edd elő!	
		nyújtófát	
		2 darab hurkapálcát	
		karistolót és vágót	
		ecsetet	

	vizes edényt kis vizzel
	gyertyatartó sablont
	tálkát és nylont
4.	Vágj egy szelet agyagot!
5.	Nyujtsd ki egyenletesen!
6.	Helyezd a sablont a kinyújtott agyaglapra!

7. Vágd körbe!



8. Karistold a kissebb darab széleit.



9. Ragaszd össze kis vizzel henger formájúra!



# 10. Helyezd a kör közepébe és jelöld meg a



# 11. Karistold és vizezd mindkét helyen!





# 12. Ragasz össze!



13. Karistold, vizezd a fülét!





14. Ragaszd fel a fülét!



14. Béleld ki az edény nylonnal és helyezd bele a gyertyatartót!



- 15. lgazítsd a megfelelő formára!
- 16. Hagyd száradni, amíg kökemény lesz!
- 17. Tegyed el az eszközöket!
- 18. Töröld tisztára az asztalt!