



**DEBRECENI  
EGYETEM**

# KÜLÖNLEGES BÁNÁSMÓD

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**INTERDISZCIPLINÁRIS  
(OPEN ACCESS – NYÍLT HOZZÁFÉRÉSŰ)  
SZAKMAI LAP**

**ISSN 2498-5368**

**Web:**

<https://gygyk.unideb.hu/hu/kulonlegesbanasmod>

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**V. évf., 2019/1. szám**

**DOI 10.18458/KB.2019.1.1**

## IMPRESSZUM

### KÜLÖNLEGES BÁNÁSMÓD - INTERDISZCIPLINÁRIS SZAKMAI LAP

**Alapítva:** 2014-ben.

A Nemzeti Média- és Hírközlési Hatóság Hivatala a médiaszolgáltatásokról és a tömegkommunikációról szóló 2010. évi CLXXXV. törvény 46. § (4) bekezdése alapján nyilvántartásba vett sajtótermék (határozatról szóló értesítés iktatószáma: CE/32515-4/2014).

**Kiadó:** Debreceni Egyetem

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*Note:* The title of the journal comes from a Hungarian Act CXC of 2011. on National Public Education in which they use the term 'Különleges Bánásmód', and this translates as Special Treatment, but this encompasses the areas of Special Educational Needs, Talented Children and Children with Behaviour and Learning Difficulties. The adoption of Special Treatment is therefore in accordance with Hungarian law, but it is recognised that the translation may not be perfect in expressing the full meaning of what is encapsulated in this term.

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# **EMPIRIKUS TANULMÁNYOK**



CONNECTIONS BETWEEN SOCIODEMOGRAPHIC CHARACTERISTICS AND  
ATTITUDES TOWARDS EMPLOYEES WITH DISABILITIES

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Balázs-Földi E. (2019): Connections between sociodemographic characteristics and attitudes towards employees with disabilities. *Különleges Bánásmód*, 5. (1). 7–17. DOI 10.18458/KB.2019.1.7

**Abstract**

Since the annexation to the European Union exceptional attention has been directed to equal opportunities and equal treatment of disadvantaged social groups in Hungary too. The Hungarian state tries to ensure them first and foremost with legal tools. It is, however, not enough to result in lasting changes in the attitude of the society. Personal experiences, as well as, positive messages transmitted by others can produce a positive effect on the development of inclusive approaches. With respect to sociodemographic characteristics (e.g. gender, age, school qualification) investigations into this field suggest different research results. The questionnaire data collection took place in three districts of Hungary. The research was aimed at questioning two test groups, on one hand the employees of social institutions who mainly deal with disadvantaged persons, on the other hand the residents of the given districts, who have the knowledge and approach of an average citizen. The ingenuity of the research is put down to the fact that in Hungary there had never been a research to explore the attitudes of social employees. A total of 747 persons filled in the questionnaires, out of which 408 employees in social institutions and 339 district residents. This present study discloses the deeper connections of the research results which are observable between the two test groups' attitudes to persons with disabilities and sociodemographic characteristics. Its significance is crucial in identifying the characteristics of the colleague playing an actual role in the integration who, as a reference person, with his own personal involvement can promote the integration of disabled persons into workplace communities. In the research of attitudes three well-distinguished clusters were outlined, which were named as followings: accepting, uncertain/indifferent, rejecting. The study investigates what kind of sociodemographic characteristics the residents, and social workers who belong to the three clusters have. Do people who belong to the same cluster possess similar attributes in both test samples? What kind of attributes have the residents and social workers got who show a higher level of acceptance? According to the findings of the research the attitudes of the district residents differ in age, school qualification and personal experience, whereas in case of the social workers the difference in attitudes depends on age and school qualification.

**Keywords:** employee with disabilities, social worker, inclusive approach, labour market, employment

**Disciplines:** Business and management, sociology

**Absztrakt**

SZOCIODEMOGRÁFIAI JELLEMZŐK ÉS A FOGYATÉKOS MUNKAVÁLLALÓKKAL  
KAPCSOLATOS ATTITŰDŐK ÖSSZEFÜGGÉSEI

Az Európai Unióhoz való csatlakozás óta kiemelt figyelem irányul Magyarországon is a hátrányos helyzetű társadalmi csoportok esélyegyenlőségére, egyenlő bánásmódjára. A magyar állam ezek érvényesülését elsősorban jogi eszközök segítségével igyekszik biztosítani. Ezek azonban nem elegendőek ahhoz, hogy a társadalom szemléletében tartósan változásokat eredményezzenek. A befogadó attitűdök

kialakulására pozitívan hatást gyakorolhatnak a személyes tapasztalatok, illetve a mások által közvetített pozitív üzenetek. Szociodemográfiai jellemzők (pl. nem, életkor, iskolai végzettség) tekintetében e tárgykörben született vizsgálatok eltérő kutatási eredményekről számolnak be. A kérdőíves felmérés adatgyűjtése Magyarország három járásában valósult meg. A kutatás két csoport megkérdezésére irányult, egyrészt az elsősorban hátrányos helyzetű személyek nehézségeivel foglalkozó szociális intézmények munkavállalóira, másrészt a járásokban élő lakosokra, akik a társadalom átlagpolgárainak tájékozottságával, szemléletével rendelkeznek. A kutatás egyedisége, hogy hazánkban nem irányult még vizsgálat a szociális munkások attitűdjeinek feltárására. A kérdőíves kutatás válaszadóinak összlétszáma 747 fő, ebből 408 fő szociális intézményi dolgozó és 339 fő járási lakos. Jelen tanulmány a kutatás azokat a mélyebb összefüggéseket feltáró eredményeit mutatja be, amelyek e két vizsgálati csoport fogyatékos emberekkel kapcsolatos attitűdjei és szociodemográfiai sajátosságai között megfigyelhetők. Ennek jelentősége a beillesztésben ténylegesen szerepet vállaló munkatárs jellemzőinek beazonosítása szempontjából lényeges, aki mint referenciaszemély személyes szerepvállalásával elősegítheti a fogyatékos ember munkahelyi közösségekbe történő integrációját. A kutatásban az attitűdök kapcsán három, jól elkülöníthető klaszter rajzolódott ki, melyek a következő elnevezéseket kapták: elfogadó, bizonytalan/közömbös, elutasító. A tanulmány arra keresi a választ, hogy milyen szociodemográfiai jellemzőkkel rendelkeznek e három klaszterbe tartozó lakosok, illetve szociális munkások? Mindkét vizsgálati mintában hasonló jellegzetességekkel rendelkeznek-e az egy klaszterbe tartozók? Milyen sajátosságokkal rendelkeznek a magasabb szintű befogadást mutató lakosok és szociális munkások? A kutatás eredményei szerint a járási állampolgárok esetében az attitűdök az életkor, az iskolai végzettség, és a személyes tapasztalatok alapján is eltéréseket mutatnak, míg a szociális munkásoknál csak az életkor és az iskolai végzettség szerint jelentkezik attitűdbeli különbség.

**Kulcsszavak:** fogyatékos munkavállaló, szociális munkás, befogadó szemlélet, munkaerőpiac, foglalkoztatás

**Diszciplínák:** gazdálkodás- és szervezéstudományok, szociológia

Expectations connected with the society and its subsystem regarding the realisation of equal opportunities and equal treatment of persons with disabilities have been present in the Hungarian jurisdiction since 1998 (Act XXVI of 1998 on the rights and equal opportunities of persons with disabilities). At the promulgation the law seemed novel and particular in Hungarian relations, since it declared the fulfilment of special rights of a disadvantaged social group and specified the aims that contribute to the realisation of their equal opportunities as well as its fields (e.g. healthcare, rehabilitation, employment). Another uniqueness of the law was that it specified a deadline to the fulfilment of the aims, such as the discontinuance of boarding institutions with large number of residents and their transformation into a system of residential homes, or the achievement of accessibility. Later these deadlines needed to be extended again and again as they proved to be unachievable. It highlighted the problem that the high-standard theoretical expectations of the legislator cannot be attained without an actual paradigm shift in the approach of the society, those concerned, and their direct social surroundings (relatives, pedagoges,

caregivers, helpers, colleagues, employers, etc.) (Vekerdy-Nagy & Rákó, 2017). Employment is one of the fields of equal opportunities which supports the integration of persons with disabilities. The sheltered employment model facilitates the employment of persons with disabilities, which is an efficient strategy to prepare the colleagues and disabled employees for the labour market inclusion (Rákó, 2012). The integrated employment of persons with disabilities is established by the accepting approach of the labour market's participants (employers, colleagues). The basis of the change in approach is the attitude which regards the person with disability not as a hindered person who lacks skills, but rather as a person with abilities who is able to learn, work, and fulfil his social roles. In the first part, the study lays foundations of the attitude concept and presents the methodology, then the results and findings of previous researches on sociodemographic and other factors that play a role in the development of attitudes.

It is followed by the overview of the findings of research exploring the attitudes of residents and workers in social institutions in three districts in Hungary.



The main aim of the study is to explore what kind of factors affect the attitudes and what sort of characteristics those residents and social workers have who demonstrate a higher level of acceptance. A further objective is to find out what characterises the professionals as well as the citizens who have an accepting attitude to persons with disabilities and therefore they can actually take an effective role in the integration and inclusion of persons with disabilities.

### The attitude

In the science of psychology there are many approaches to define the concept of the attitude. Among them one of the best known and most often used definition was published by Allport in 1935. "The attitude is a mental and neutral state of readiness, organised through experience, exerting a directive or dynamic influence upon an individual's response to all objects and situations with which it is related." (by Allport (1935) quoted by Halász & Hunyadi & Marton, 1979 p.49). Thomas and Znaniecki (1918) defined the attitude as mental processes which determine the person's behaviour and acts. Attitudes are positive or negative manifestations towards objects, people, situations (Atkinson et al., 1997). The attitude is valuing relation, a state of mind toward an object which helps to find one's way in the society (Atkinson et al., 1997; Mező, 2008; Maio & Haddock, 2010). Binet (1911) suggests that the attitude consists of conscious and unconscious parts (Halász & Hunyadi & Marton, 1979 p.11).

The attitude is resulted by learning and can be based on personal experiences or taken over from others (e.g. a reference person). Attitudes are constant, changing them is a slow process, as they are based on experience and are connected to the individual's personal values (Csepeli, 2010; Csepeli, 2015). Sensitisation trainings may further the attitude shaping, as they offer a great opportunity on one hand to enhance knowledge on the real-life situation of persons with disabilities by providing information, on the other hand by creating a direct contact with them, and this way the existence of disability becomes a personal experience. Attitudes consist of three components (Budavári-Takács, 2011).

The first element is the conceptual or cognitive component, which appears in opinions or thoughts. The second part is the emotional or mental component, which can range from acceptance to refusal (from the positive to the negative relation). The third one is the behavioural or conative component, which can be observed in actual activity

and behaviour. A special field in the social research is the measurement of attitudes.

A particular research method is needed to become acquainted with attitudes, the best-known measurement tools are the Bogardas scale, the Likert scale and Osgood's semantic differential scale (Ferge & Cseh-Szombathy, 1975; Babbie, 2000).

### Presentation of research history

Firstly, researches focused on the examination of attitudes towards persons from different nationalities, but nowadays researches of attitudes to other social groups such as disabled persons are comprehensively presented in the fields of various social sciences. The relation to disability, the familiarisation with its particularities have become especially important in the viewpoint of social inclusion therefore in the affected scientific fields i.e. in pedagogy and employment there have been significant researches into this topic.

Researches carried out in the domain of pedagogy primarily aimed to explore the attitudes of pedagogues, carers, and schoolmates who played part in the inclusion (Majoros, 2009; Némethné Tóth, 2009; Pető & Ceglédi, 2012; Costello & Boyle, 2013).

In the course of the research social background information was also examined such as the role of gender, age, school qualification. According to the findings of the research the attitude differences by gender are not unambiguous.

However, Boer (2011), Avramidis & Norwick (2002), Szabó (2016) and Huszár et al. (2018) discovered divergence between the attitudes of female and male respondents: women seem more accepting than men regarding children with disabilities, on the other hand Pongrácz (2013) did not find such differences in his research. The attitudes show differences based on the age in the research of Forlin et al. (2009) and Avramidis & Norwick (2002), they found the younger generations more accepting, but the researches of Ellins – Porter (2005) did not confirm it.

Based on school qualification Horváthné Morvay (2006) did not find any differences, but there were differences in case of having special knowledge, whereas according to Sharma et al. (2006), Hollins (2011) higher school qualification can positively influence the attitudes. Regarding studies based on the research results of Vignes et al. (2008, 2009) it can be stated that previous knowledge on disability can put a positive influence on attitudes.

Allport (1979) pointed out the role of personal contact in dissolving prejudices. It was supported by research results that personal experiences and

contact with disabled persons can promote the dissolving stereotypes and the creation of positive attitudes (Szegő, 2008; Némethné Tóth, 2009; Szabó, 2016).

Another main field of inclusion is employment, and its accepting approach is indispensable for the social catching-up of persons with disabilities and the improvement of their life quality.

Researches in this aspect primarily focused on the acquaintance with the attitudes of organisational leaders and HR professionals. These researches examine the matter of employment in case of persons with disabilities and a reduced work capacity. Mapping the role of sociodemographic background factors has not been in the focus of the research, but in connection with the examination of the leaders' attitudes the attitude shaping effect of personal connections and work experience was pointed out. (Fuqua et al., 1984; Blanck, 1998; Unger, 2002).

There are not so many available research results on the attitudes of social employees. It is interesting as the social profession is a special field of art sciences which first and foremost aims to deal with social problems and support the people in need. In order to achieve these goals, those who exercise a social profession have to meet high professional ethical requirements, such as tolerance, sensitivity to social problems, empathy, accepting attitude, etc. (Soós, 2005). Eubank (2010) researched the attitudes of social employees towards persons with physical disability. He stated that social professionals approached the problems of disabled persons from the perspective of hindrances and lack of abilities, and their attitudes were not more positive towards them.

Selvamani & Rajan (2017) explored the attitudes of social employee students. Based on their research results, two-third of the students expressed basically positive attitudes to persons with disabilities, nevertheless they did not consider their employment an important factor.

In summary, based on the review of the specialist literature it could be stated that regarding the results of the attitude research the following sociological background factors may influence the attitudes: gender, age, school qualification, preliminary or special knowledge on disability, personal experiences, and work connections.

## **DATABASE AND METHOD OF THE RESEARCH**

The questionnaire data collection took place in three districts of Hungary (Hajdúnánás, Haj-

dúböszörmény, Derecske). The research was aimed at questioning two test groups, on one hand the employees of social institutions who mainly deal with disadvantaged persons, on the other hand the residents of the given districts, who have the knowledge and approach of an average citizen. The uniqueness of the examination compared to previous research is given by the fact that the subject is not approached from the perspective of persons with disability and a reduced work capacity, or of employers, but the work and employment of persons with disability and a reduced work capacity is examined from the viewpoint of coworkers. The primary aim of the examination was to explore the attitudes of the two test groups towards employees with disability and a reduced work capacity. In the course of the survey a total of 309 residents and 408 persons from the institutions filled in the questionnaire. The assemblage of the residential sample was not based on probability quota sampling. Employees of social institutions run by the government or local government were involved in the sample of social institution employees, based on voluntary participation 75-80 percent of them filled in the questionnaires.

The present study focuses on the presentation of research results that explore the connections in attitudes and sociodemographic characteristics that the surveyed groups have towards disabled employees. To examine the results of the research cluster analysis was conducted. Based on the average values of the cluster analysis the residents and the social employees could be classified according to their attitude to employees with disabilities into three clusters (Balázs-Földi, 2018). Those who belonged to the first cluster were called "accepting" as in every question they related to disabled persons in an accepting, positive way.

The members of the "uncertain/indifferent" cluster do not openly express their opinion that is they suggest caution, uncertainty and indifference. Those who belong to the "rejecting" cluster are rejective and negative towards persons with disabilities. The study evaluates the results based on the following factors: age, school qualification, preliminary knowledge gained on disability, and direct experience with disabled persons.

### **Characteristics of test samples**

The gender distribution of social workers shows that this profession is becoming a female preserve. 88.5% of the employees are women and 11.5% of them are men. Based on the age distribution it seems that most of them are over 35 years of age,

32% of them fell into the 36-45 age group, 35.3% into the 46-55 age group, the younger age group is much less represented (Figure 1).

16.4% of the social employees have elementary qualification, 56.9% have secondary qualification and 26.7% have tertiary qualification.

The gender distribution of the district residents: 40.8% male and 59.2% female. The age distribution of the residential respondents is more uniform compared to the respondents of social institutions. The largest proportion fell into the 26-35 age group (21.2%) and into the 36-45 age group (21.8%) (Figure 1). 26.2% of the residents have elementary qualification, 45.2% have secondary qualification, 28.6% have tertiary qualification.

75.1% of the employees in social institutions gained preliminary knowledge related to disability, whereas it is only 34% in case of district residents.

Much fewer people in both groups have work experience or personal experience, 43.7% of social employees and 22.4% of residential respondents said to have had such involvement (Figure 2).

Based on which cluster they belong to, social employees and district residents have the following distribution. Regarding preliminary assumptions, we would expect social professionals to have a higher level of acceptance, meanwhile we would expect district residents to have a lower level of acceptance, but the results of cluster analysis did not confirm it clearly. More than half of the social employees (55.8%) belong to the uncertain/indifferent category, while 29% can be listed in the accepting and 15% in the rejecting cluster. In case of the district residents the proportion of those (35.7%) who are cautious is lower, they express their opinion more openly, 37.3% of them belong to the rejecting and 27.1% to the accepting cluster (Figure 3).

Figure 1: Age group distribution of respondent social employees and district residents (%). (Source: Compiled by the author)

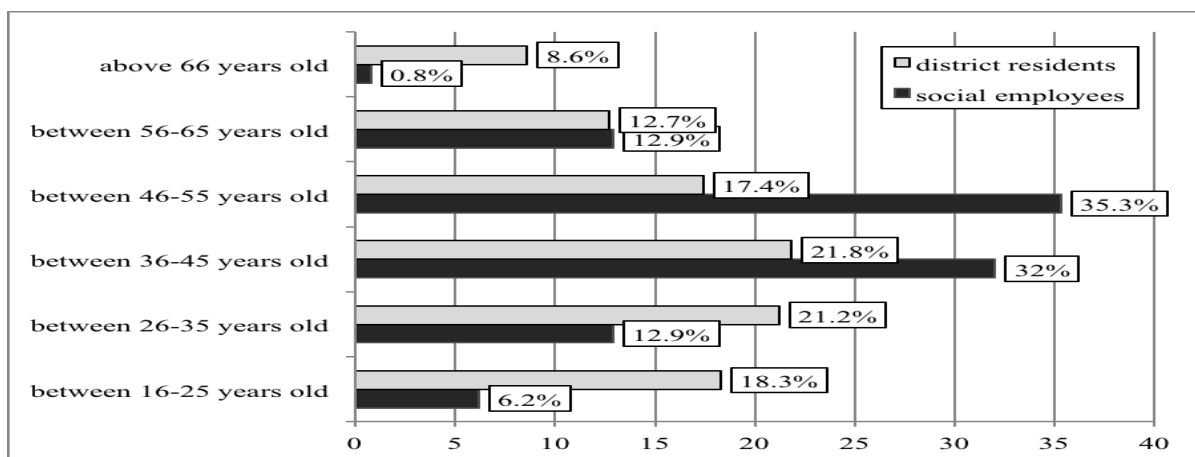


Figure 2: Distribution of social employees and district residents based on work experience and preliminary knowledge (%). (Source: Compiled by the author)

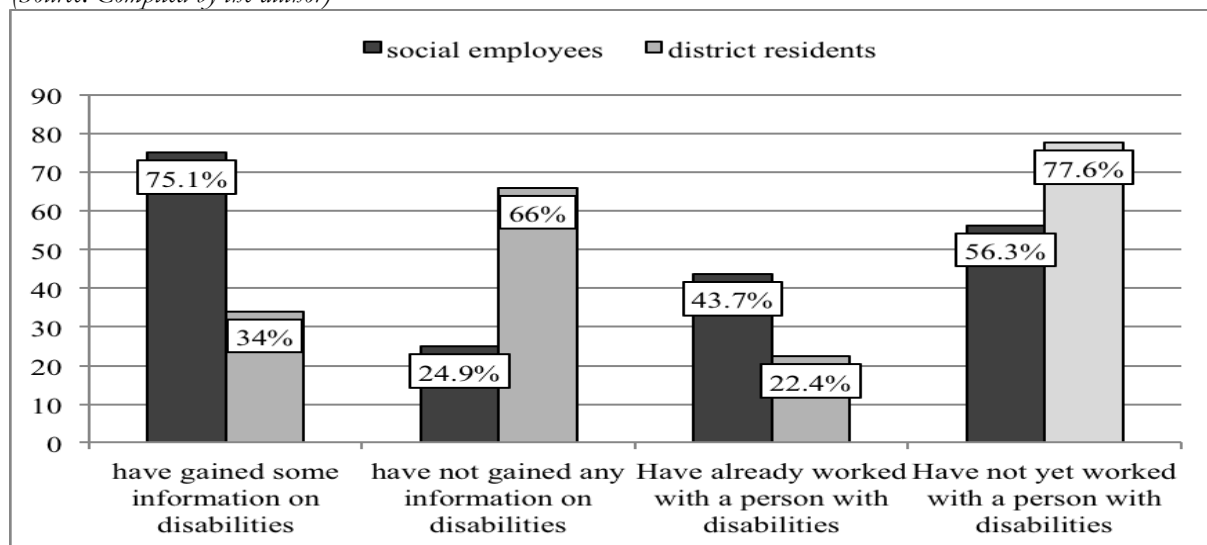
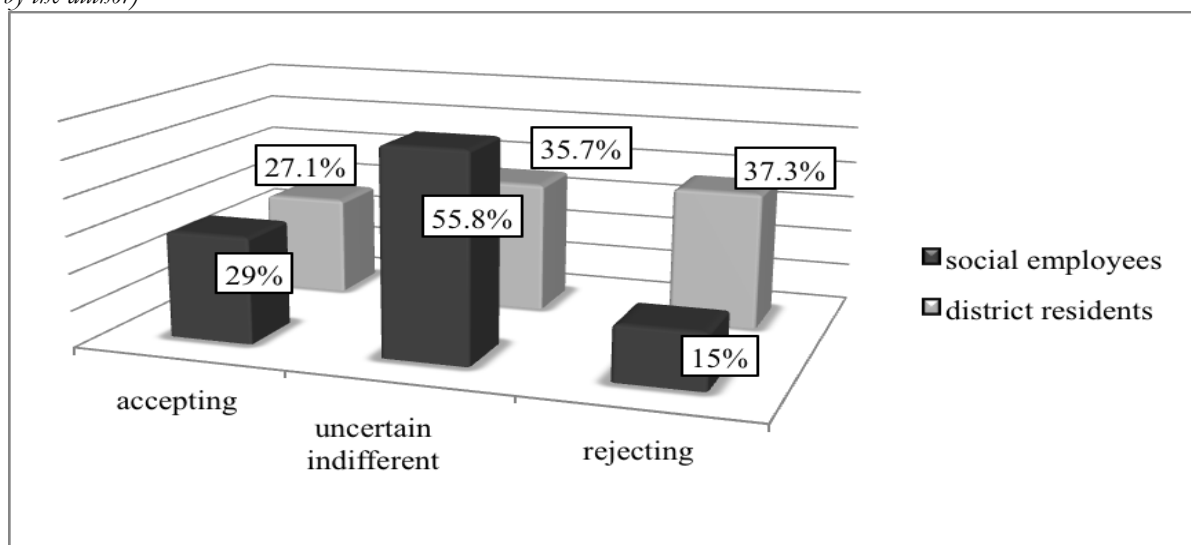


Figure 3: Distribution of social employees and district residents based on clusters which they belong to (%). (Source: Compiled by the author)



### RESEARCH RESULTS

Based on the age of the respondent district residents there are significant differences regarding the clusters they belong to. One-third (34.1%) of those who can be listed in the accepting cluster fall into the 36-45 age group, 18.8% into the 26-35 age group. The largest scale rejection was demonstrated by 46-55 age group (23.9%) and 16-25 age group (22.2%). Indifference features mainly the 26-35 age group (25%) and the 56-65 age group (19.6%), they demonstrate caution and uncertainty in the acceptance of persons with disabilities. However, in case of the latter age group it is important to stress that the age group over 66 years of age which follows them are accepting and they express their opinion more openly, fewer of them belong to the uncertain/indifferent cluster (5.4%), while the proportion of the those rejecting is the same size as in the 56-65 age group (9.4%) (Figure 4).

Amongst social employees also the 36-45 age group demonstrates the highest level of acceptance (44.2%), whereas the 46-55 age group the lowest (40% is the proportion of those who are rejecting) (Figure 5). The rejecting attitude of this latter age group is supported by the fact that besides the high proportion of rejection (40%) the proportion of those who belong to the uncertain/indifferent cluster is also high (42.2%). A common characteristic of the 16-25 age group, the 26-35 age group and the 36-45 age group is that their proportion in the accepting cluster is higher, meanwhile that of in the uncertain/indifferent cluster and in the rejecting cluster is lower. However, in the age group above

46 years of age the contrary tendency is visible that is the proportion in the accepting cluster is lower, while the proportion in the uncertain/indifferent and in the rejecting clusters is higher. (Figure 5).

An interesting difference in the aspect of the two samples is that in case of the district residents, with the exception of the 36-45 age group and those above 66 years of age, in all age groups the proportion is lower in the accepting cluster and higher in the uncertain/indifferent or rejecting clusters. In case of employees of social institutions the younger age groups (16-45 years of age) manifest accepting attitudes, while the older age groups (above 46 years of age) have more rejecting attitudes.

In summary, in the aspect of age the results suggest that in both test samples those who have an accepting attitude belong to the 36-45 age group, they are the ones who probably thanks to their real-life experience and approach have the most open attitude towards persons with disabilities.

Based on school qualification, districts residents with tertiary education have the highest proportion in the accepting cluster (45.8%). In the uncertain/indifferent and in the rejecting clusters district residents with secondary education represent the highest proportion. Consequently, they are less accepting regarding persons with disabilities. Amongst social employees belonging to the accepting cluster are those with secondary education (57.4%) and the lowest proportion (7.4%) has basic education. Based on the results we can draw the conclusion that in the rejecting cluster the proportion of those who have basic education is outstanding (31.4%) (Figure 6).

Figure 4: Clusters of district residents based on age (%). (Source: Compiled by the author)

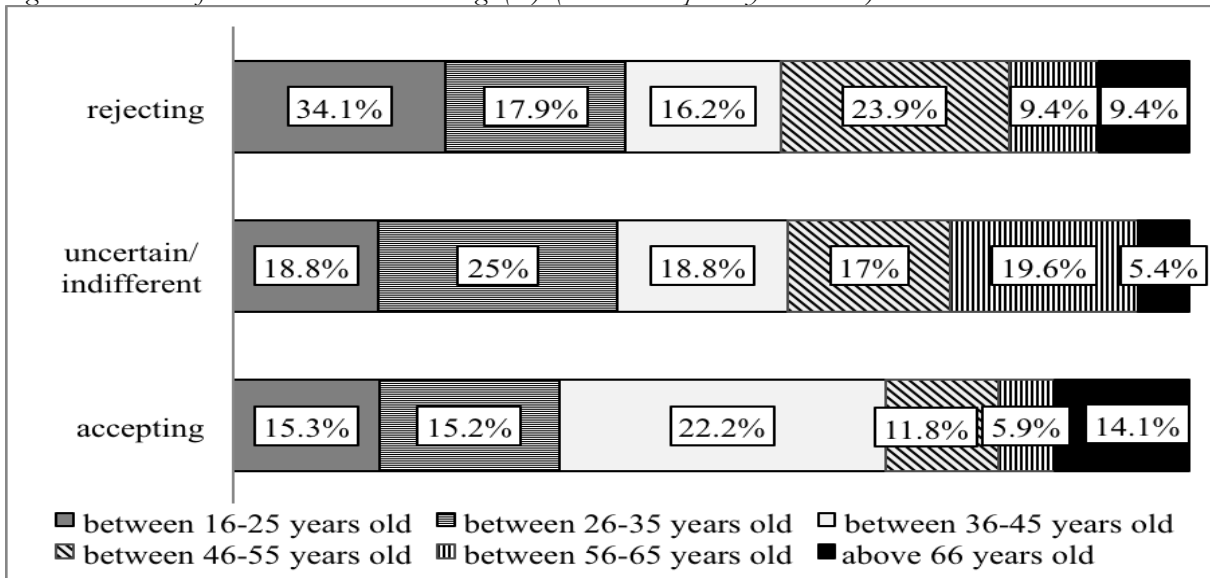
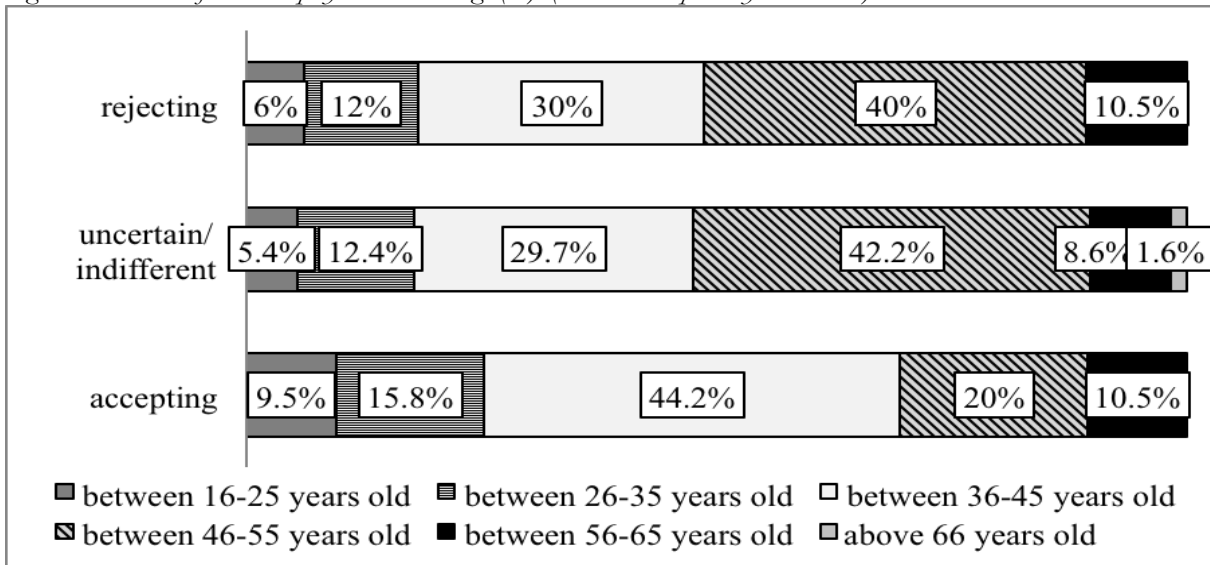


Figure 5: Clusters of social employees based on age (%). (Source: Compiled by the author)



The results of Figure 6 suggest that the rise in school education positively influences the accepting attitudes. While in the rejecting cluster there is in both samples a higher proportion of those who have basic education, those with tertiary education have rather accepting attitudes towards persons with disabilities and their proportion is lower in the rejecting or uncertain/indifferent clusters.

Based on results of previous studies, we can assume that persons in the accepting cluster have gained preliminary knowledge, whereas the majority of the members in the rejecting cluster has no preliminary knowledge. However, the study results

did not show any significant correlation in case of either test groups. Nevertheless, it can be ascertained as a tendency that the proportion of those with preliminary knowledge on disability was higher in the accepting cluster (83% in case of social employees and 43.5% by district residents), but significant difference could not be established amongst the respondents belonging to the accepting, uncertain/indifferent or rejecting clusters.

Work relationship with disabled persons influences the accepting attitudes positively. Based on research results amongst persons who belong to the accepting cluster the proportion of those who

have already worked together with a disabled person is higher. In the residential sample one-third (30.6%) of the people in the accepting cluster, 10.7% of the uncertain/indifferent cluster and 24.8% of the rejecting cluster have work experience with persons with disabilities. The caution of the uncertain/indifferent cluster comes from the fact that 83% of them have never worked with persons with disabilities and therefore they have not got any real-life experience. 61.2% of those belonging to the accepting cluster and 68.4% of those from the rejecting cluster have not had personal contact with a person with disabilities. Based on the results it can be clearly established that personal contacts have a positive impact on the accepting attitudes (Figure 7).

In case of employees working in social institutions a significant difference based on work experience was not established. It is, however, surprising that the residential findings are not confirmed even as a tendency, as in case of the social employees the majority of those who belong to the accepting cluster (54.6%) have never worked together with a person with disabilities and the same applies to those (51%) with rejecting attitudes. Accordingly, the rejecting cluster of social employees has more real-life experience (46.9%) than social employees in the accepting cluster (44.3%). This result demonstrates a completely opposite tendency compared to the residential sample.

Figure 6: Clusters of social employees and district residents based on school qualification (%). (Source: Compiled by the author)

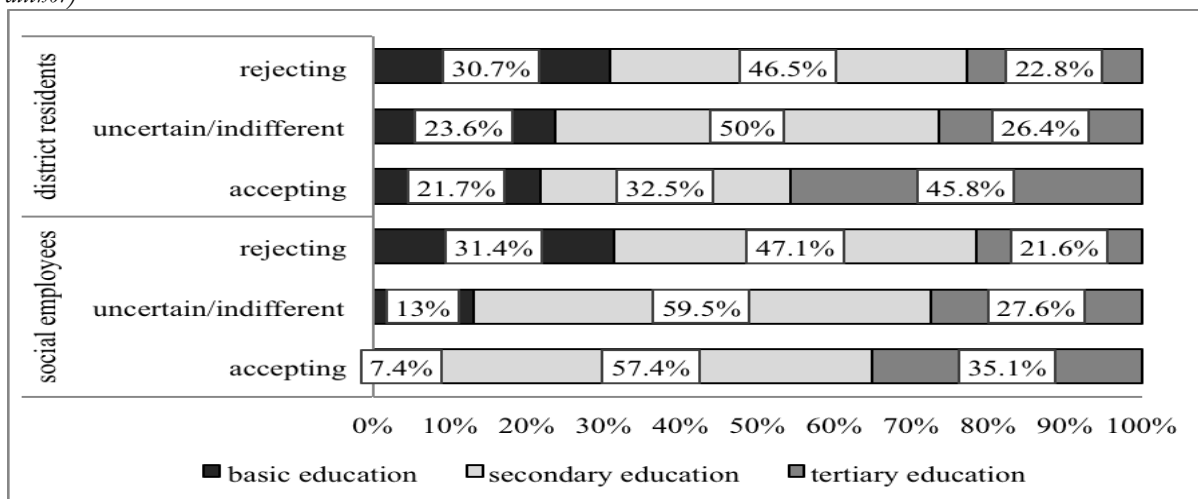
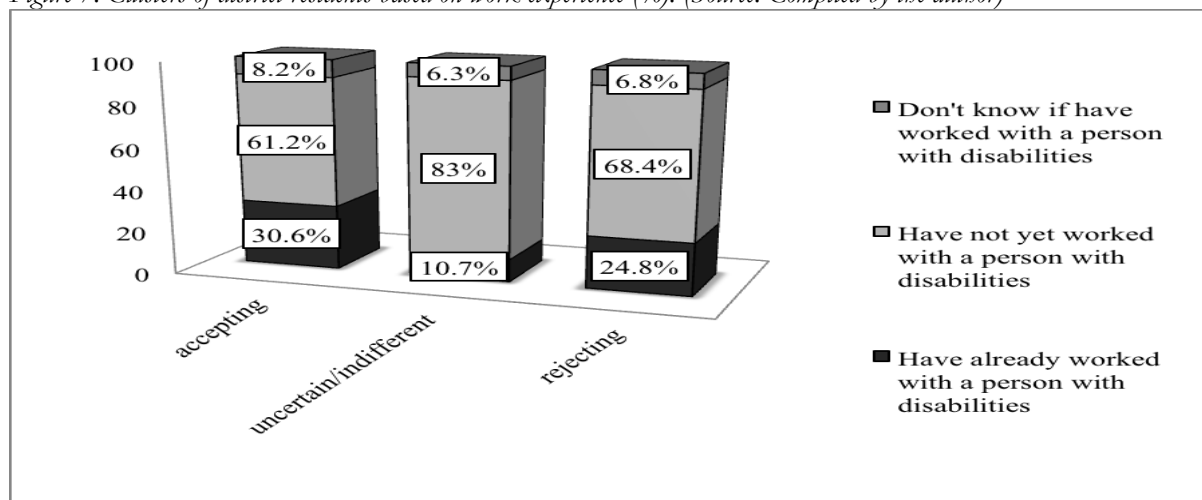


Figure 7: Clusters of district residents based on work experience (%). (Source: Compiled by the author)



## Conclusions

The labour market employment of persons with disabilities in Hungary has significant obstacles. The basis of equal employment and comprehensive integration could be created by accepting attitudes towards persons with disabilities. Therefore it is important to take into consideration the factors that show a positive correlation to the creation and development of the accepting attitudes. The results of previous research suggest that gender, school qualification, age segment, preliminary special knowledge, real-life experience can result in different attitudes.

Based on the findings of this present research, it can be established that amongst the attitudes of the district residents there are differences with regard to their school qualification, age, and personal experience, while in case of social employees school qualification and age result in different attitudes. In the aspect of preliminarily gained knowledge there was no significant difference either in the attitudes of district residents or that of social employees. By all means it is thought-provoking, as one principal element of the social sensitisation is to increase the knowledge related to the target group, by itself it does not seem to be enough, though, to permanently establish a proper openness and sensitivity towards social problems.

The result of the examination also points out that an important circumstance in the transfer of knowledge is in what approach or perspective the residents and the social professionals are informed about the real-life situation of persons with disabilities. Does the information approach the life situation of persons with disabilities from the aspect of the social model and focus on the strengths, possibilities, as well as the elimination of social barriers; or from the medical model's point of view focusing on the lack of abilities?

The research findings based on school qualification suggest that higher level qualification results in the strengthening of accepting attitudes. In both test groups those with tertiary qualification are characterised by a higher level of acceptance, and those with elementary qualification show a lower level of accepting approach. It highlights the fact that tertiary education, although it does not expediently aim to introduce social problems, facilitates the development of a boarder view and a more tolerant approach. It raises the possibility that the higher school qualification the citizens have, the more open, the more tolerant social approach can be developed.

As regards the age segment, based on the research results it can be concluded that both amongst district residents and employees of social

institutions the 36-45 age group shows the highest level of acceptance. From the point of view of the labour market this age group is the most active, they are already in possession of real-life experience and knowledge and they relate to disabled persons - and probably to other disadvantaged groups too - with openness, tolerance, empathy, acceptance.

Personal experience with persons with disabilities amongst the district residents influences the accepting approach in a positive way. Those who have had the chance to enter into personal contact with disabled persons belong to the accepting cluster in higher proportion. On the other hand, those without such experience approach persons with disabilities in a more cautious, more uncertain and more rejecting way. The research conclusion can be drawn that the highest level of acceptance was manifested by the residents who fall into the 36-45 age group, have tertiary qualification, and personal experience, they are the ones who can most effectively promote the integration of persons with disabilities, the validation of their human rights, as they possess adequate openness and sensitivity towards social problems.

The most interesting results of the study, however, concern to the attitudes of the employees in social institutions. Neither preliminary knowledge, nor real-life experience resulted in significant differences in the attitudes of the employees in social institutions. They have the same attitude independently whether they have received special knowledge, information, or they have direct experience with persons with disabilities.

In the background may be the fact that thanks to their profession they are genuinely more open, more accepting, more tolerant towards disadvantaged persons, therefore other factors do not influence their approach significantly. Then again, the question arises in the light of the results why there is not a more striking positive difference between the attitudes of the citizens and the social employees based on either their age or their school qualification. The answer may lie in the fact that the training of social employees basically concentrates on the problems of the clients and the possible solutions for them.

Their professional attitude is rather featured by a problem-oriented approach (medical approach), while focusing on the strengths, existing abilities, and functions remains in the background. However, it serves rather the strengthening of the rejecting, or uncertain/indifferent attitudes.

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**DIFFERENCES IN PURPOSES AND LIFE-GOALS FROM THE PERSPECTIVE OF HEALTH BEHAVIOR IN A ROMANIAN ADOLESCENT SAMPLE**

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Csibi S., & Csibi Mónika (2019): Differences in purposes and life-goals from the perspective of health behavior in a Romanian adolescent sample. *Különleges Bánásmód*, 5. (1). 19–29.  
DOI 10.18458/KB.2019.1.19

**Abstract**

The goal of this research was to investigate specific personality factors theorized to be involved in adolescents' health behavior, such as individual differences in the level of purposes in life and the variations of life goals. The instrumentation for the study was a self-completed questionnaire, which included items for assessing health-behavior data, the Purposes in Life scale, and the Aspiration Index for life-goals' assessment. There were 385 teenage study participants aged between 16-18 years (mean = 16.8 years; 182 boys – 47.3 % and 203 girls – 52,7%) in Transylvania, Romania. Results showed that adolescents who engaged in health protective behaviors (e.g., physical activity, fruit /vegetable consumption) reported higher levels of purposes in life and intrinsic life-goals, such as affiliation or personal growth. Conversely, those engaged in health risky behaviors (e.g., substance use, sweet/soft drink consumption) not only reported lower levels in having a purpose in life, but also tended to report fewer health goals for the future as well as personal growth. These findings argue that health professionals should incorporate and emphasize the development of teenagers' life goals and purposes in the design and conceptualization of school-based prevention and health promotion programs that focus on fostering healthy life-style adoption.

**Keywords:** purpose in life, life goals, health behavior

**Disciplines:** psychology, pedagogy

**Absztrakt**

EGYÉNI KÜLÖNBÖZŐSÉGEK A SERDÜLŐK EGÉSZSÉGES ÉLETMÓDJÁBAN AZ ÉLET-CÉLJAİK PERSPEKTÍVÁJÁBÓL

A kutatás célja azoknak a specifikus személyiségtényezőknek vizsgálata, amelyek szerepet játszanak a serdülők egészséges életmódjában. Eszközök: önkitöltős kérdőív, amely az egészséget védő viselkedésekre vonatkozó kérdéseket tartalmaz, az Életcélok skála, valamint az Aspirációs Index. Résztvevők: 385 tanuló, a 16 és 18 év közötti korcsoportból. Átlag életkoruk 16,8 év volt, nem szerinti eloszlásuk alapján 182 fiú - 47,3% és 203 lány - 52,7% vett részt a felmérésben. Eredmények: Az egészségvédő magatartást (mint például a fizikai aktivitás, a gyümölcs/ zöldségfogyasztás) tanúsító serdülők magasabb szintű és többnyire belső életcélokról számoltak be, mint amilyenek a személyes növekedés, és affiliáció. Másfelől, az egészségre kockázatot jelentő magatartású (mint például a szerhasználat, az édes/szénsavas üdítőital-fogyasztás) serdülők kevesebb életcélról számoltak be. Eredményeink arra utalnak, hogy a serdülők életcéljai, valamint ezeknek gazdagodása fontos az egészséges életmód elfogadására összpontosító iskolai prevenció és egészségfejlesztési programok kialakításában és konceptualizálásában.

**Kulcsszavak:** egészségvédő magatartás, életcélok, serdülők

**Diszciplínák:** pszichológia, pedagógia

## INTRODUCTION

Development during adolescence involves the establishing of personality traits, which exert strong influence on later health-related habits and behavioral patterns. Underlying the adoption of healthy behaviors or conversely, the adoption of risky health behaviors appears to be role of the personality components. Research shows that in adolescence, the capacity of reasoning is relatively mature, yet the abilities to regulate emotional and behavioral responses are still in a developing phase and immature (Gibbons, Kingsbury, & Gerrard 2012).

The literature in this area explains purpose in life as a dominant issue in teenagers' identity development and motivational maturity to dedicate resources toward particular aspirations and goals (Kashdan & McKnight, 2009). Studies describe purpose as a construct that for adolescents provides a basis for achievement goal-orientation that is an important aspect for becoming cognitively 'mature' (Hill, Burrow, Dell, & Thornton, 2010). Purposes in life represent a personality construct that is able to provide adolescents with stronger motivation toward constructive learning (see: Mező & Mező, 2005, 2014) and reappraisal of health-related negative events in an adaptive manner. Other authors have found relevant associations between purposes in life and positive youth development outcomes (Schaefer, Morozink, van Reekum, Lapate, Norris et al., 2013; Damon, 2009).

Research has identified several personality dimensions with relevancy for the study of healthy life-style, including purpose in life, meaning in life, personal goals, fostering self-acceptance, and positive relations with others (Ryff, & Singer, 2002). It may be concluded that adolescents with high levels of purposes in life also have more highly conceived and thought out life-goals, orientation, consciousness of experiences, and meaning about their present and past life. On the other hand, teenagers who report fewer purposes in life face a lack of meaning in life, fewer life goals or aims (Ryff & Singer, 2002).

Burrow & Hill (2011) report that purpose-commitment among adolescents is positively associated with positive affectivity, hope, and happiness, and appears to strongly mediate relationships between identity and reported levels of well-being. Thus, a strong sense of purposes in life may serve as an important mechanism through which a stable identity contributes to well-being (Burrow & Hill, 2011). Furthermore, research supports that more highly conceived and developed purposes in life

relate to higher importance given to social, psychological, and health-related goals (Pinquart, Silbereisen, & Fröhlich, 2009). According to Covington (2000) goal setting plays a significant role in organizing, regulating, and orienting the behavior. The differences in the predominance of goals (intrinsic or extrinsic) and value-system strongly influence adopted behaviors. Furthermore, Ryan, et al. (2008) argue that the sense of meaning and defined purposes in life fostering the personal goal setting are relevant for the processes of internalization and integration, through which a person regulate and sustain health-protective behaviors (Ryan, Patrick, Deci, & Williams, 2008; note: Mester (2011, 2012) highlights the connections among family socialization, future-oriented goals and mental health. Others (e.g. Hanák, 2018; Hanák & Dorner, 2012) emphasize the role of school to shaping of life-goals and health protective behaviors). Research confirms that the energy and perseverance of adolescents invested in attaining goals is an important motivational factor in different life-domains, such as learning competencies and academic achievement (Grant & Dweck, 2003; Mester, 2010). The underlying mechanisms of motivational processes toward initiating and maintaining the favorable behaviors for health can be explained through self-determination theory (Deci & Ryan, 1985).

This general model provides supporting explanations of determinants of health-related behaviors such as physical activity, healthy eating, weight control, and smoking reduction, and others (Deci & Ryan, 2008). A study by Shilts, Horowitz, & Townsend (2004) found that adolescents were setting different goals related to their diet and made progresses toward achieving them including positive changes following their personal goals (Shilts, Horowitz, & Townsend, 2004). Other research also supported that intrinsic goals were associated with better health-status and higher level of well-being (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). According to Konkoly et al. (2009) meaning in life showed to be significant factor in differentiating daily smokers and non-smokers. Studies have found that the prevalence of health-risk behavior increases rapidly during early adolescence and reaches a peak in late adolescence (Piko, Skulteti, Luszczynska, & Gibbons, 2010). Health-protective behaviors, such as healthy diet and the amount of physical activity showed a relevant association with the presence of a meaning in life, which is a comparable construct to purpose in life (Brassai, Piko, & Steger, 2011). Furthermore, health-related behaviors, such as smoking, diet, and

physical activity that rely on self-regulation and play an important role in reported level of health and well-being (Ryan, Patrick, Deci, & Williams, 2008). Empirical research focusing on the risk behavior index for adolescents' use of tobacco and alcohol has found extrinsic life goals as relevant predictors (Williams, Hedberg, Cox, & Deci, 2000). Results from Pauwlik & Margitics (2008) showed that intrinsic goals containing health, personal growth and interpersonal relationships are the most powerful individual aspirations (Pauwlik & Margitics, 2008). It has been described both intrinsic (e.g. health) and extrinsic (e.g., attractiveness) goals are of relevant influence in motivating the adoption of physical activity. (Ryan, Williams, Patrick, & Deci, 2009). In school environment supporting autonomy in the students' physical activity-related goals led to their higher engagement in leisure-time physical activity even months later (Vansteenkiste, Simons, Soenens, & Lens 2004).

Thus, the life goals of adolescents represent an important predictor of psychological need satisfaction and concerns related to health behaviors (Kasser & Ryan, 1996). Ryan et al. (2008) argue that intrinsic goals are congruent with self-reported well-being and health. Among adolescents, it has been observed that extrinsic aspirations are associated with the tendency to engage in unhealthy behaviors, such as smoking or using alcohol (Williams, Cox, Hedberg, & Deci, 2000). Additional studies show that adolescents who reported using cigarettes had significantly stronger extrinsic goals than their peer who reported nonsmoking. Adolescents characterized predominantly by intrinsic goals inclined to be more autonomous, while a tendency toward extrinsic goals was associated with more risky and fewer healthy behaviors (Deci, & Ryan, 2008; Williams, Cox, Hedberg, & Deci, 2000).

In this study, we examined several key indicators of healthy life-style, such as physical activity, healthy diet, and selected risk behaviors in the perspective of purposes and goals among adolescents. The aim of this research was to determine whether the personality components among adolescents, such as purposes in life, structure of goals might be related to their reported health status and health-related behavior and whether gender, age, attending school-type and school performance might play a role in these associations. We theorized that these factors would be associated with an increased adoption of health-behaviors, concomitantly with a lower level of health-risk manifestations. The specific hypotheses for the study were the following: 1. The personality factors of level of purposes in life and structure of goals related to health status

would differ according to gender, age, school type, and school performances. 2. Adolescents with more defined purposes in life, predominance of intrinsic and health-related goals would adopt health-behaviors, such as more amounts of physical activity and healthy diet, while the dominance of extrinsic goals, the decreased level of health-related goals and the lower values of aspiration index are relevantly associated with health-risk behaviors. We also postulated that there would be significant differences by age and gender among the analyzed variables.

## METHOD

### Participants

Subjects in the study were teenage students from Romanian high schools within the Transylvanian area. The total number of participants was 385, 182 boys (47.3 %), and 203 girls (52.7%). Participants were between 16-18 years of age with a mean age of 16.8 years old and were in grades 10-12. The sample was composed of classes from both theoretical (grammar) and vocational (secondary modern/technical) schools. Classes were chosen within schools randomly. It took 40 minutes for participants to complete the questionnaire and surveys were completed during a one-hour class period. We conducted the survey during November-December in the 2013-2014 academic years.

### Instruments

The survey instrument included the Purpose in Life Test (Crumbaugh & Maholick, 1964) and the shortened version (Martos, Szabó, & Rózsa, 2006) of the Aspiration Index Scale (Kasser & Ryan, 1996), containing three subscales: extrinsic goals (fame, appealing image, and financial success), intrinsic goals (personal growth, affiliation, community contribution) and health goals. The Cronbach alpha values for the Aspiration Index Scale (14 items,  $\alpha = .81$ ) and Purpose in Life Test (20 items,  $\alpha = .84$ ).

The survey also included items which assessed some of the health-behavioral factors (utilized in HBSC study in Hungary by Németh & Költő, 2011), such as the quantity of physical activity (based on moderate-to-vigorous physical activity screening measure developed by Prochaska et al., 2001.), healthy diet (more fruit- and vegetable consumption, fewer sweets or sugared soft drinks consume), smoking, alcohol- and drug use. To obtain the quantity of psychical activity, we asked adolescents to report the number of days over the past week that they were physically active for a total of

at least 60 minutes per day (response options ranged from “0 day” to “7 days”). Items on the instrument identified how frequently adolescents eat fruit, or consume vegetables (from “never” to “more than once a day”). They were asked how often they consumed sweets (candy or chocolate) or sugared soft drinks (from “never” to “more than once a day”). The frequency of smoking was determined by the question: “How often do you smoke tobacco at present?” (Response options ranged from “I do not smoke” to “every day”). We obtained information about the frequency of excessive alcohol use by asking the question: “Have you ever had so much alcohol that you were really drunk?” (Answers range from “no, never” to “yes, more than 10 times”). The frequency of any kind of drug use was also obtained (“Have you ever taken any kind of drug?”) with the response options ranging from ‘never’ to “more than 39 times.”

The questionnaire also contained items to obtain demographic data from participants for gender, age, school type (theoretical and vocational school) and school performance.

### Analysis

We performed data analyses using the PASW Statistics program version 18. In the first phase, we calculated descriptive statistics and performed the reliability analysis. In the second phase we calculated Spearman rho correlations to determine significant associations between variables, then the variances of health behavioral factors for our sample with Shapiro-Wilkinson test. We used independent-samples t-test or Mann-Whitney U-test for comparative analysis. In the case of some variables where there wasn't a normal distribution, we performed logarithmical transformation. In the last phase, we performed multivariate linear regression analysis for establishing the predictive role of the variables in the study.

## RESULTS

Table 1 presents the health behavior variables included in the study, comparing the Romanian HBSC data and the European HBSC averages. In this first phase, we dichotomized the data with the purpose of comparability with data presented in

the HBSC (Health Behaviour in School-aged Children Study (WHO Regional Office for Europe). records (Currie et al., 2012). Upon inspection of the data, we observed more frequent physical activity among boys, and also higher reports of the frequency of smoking and alcohol use. These differences may be explained by differences in age between our participants (mean age: 16,8 years) and the HBSC studies' sample (mean age: 15.1 years).

There were important differences between boys and girls in health behavior found in this study. Boys reported higher frequencies risk behaviors for physical activity, sweets consumption, alcohol use and drug use compared to girls. Girls consumed more fruits in their diet, while boys reported including more vegetables in their diet. Descriptive statistics of personality variables are presented in Table 2.

The personality variables investigated in this study showed significant variance by gender, age, school-type and school performance. Although we did not find differences between girls and boys in the purposes in life scores, we did find gender differences in the subscales of the Aspiration Index. Boys reported more extrinsic goals ( $p=0.001$ ), higher orientation toward financial success ( $p=0.021$ ), fame ( $p=0.002$ ) and appealing image ( $p=0.006$ ). Girls gave more importance to intrinsic goals ( $p=0.005$ ), affiliation ( $p=0.040$ ) and community contribution ( $p=0.015$ ). There were not differences in health goals, but there was in the total aspiration index where we found higher values among girls ( $p=0.001$ ). We found a significant age difference, in life-goals. The 12-th grade students scored higher on health goals (AI-HG) ( $p=0.009$ ) compared to their younger peers. Participants attending theoretical school types, showed significantly predominance of intrinsic goals ( $p=0.008$ ) (AI-IG) and its subfactors of personal growth ( $p=0.001$ ), community contribution ( $p=0.040$ ), and aspiration index ( $p=0.044$ ).

In addition, health goals ( $p=0.019$ ) were more characteristic of vocational high school attendees. School performance was found to significantly correlate with intrinsic goals ( $p=0.001$ ), especially with the personal growth ( $p=0.001$ ), affiliation ( $p=0.041$ ), and community contribution ( $p=0.005$ ) subscales (AI-IG). The aspiration index ( $p=0.001$ ) was also correlated with better school performance.

Table 1. Comparative statistics of health behavioral factors by gender (percentage).

Health behavior variables	HBSC average data*		Current Study Sample** (%)			
	Girls (%)	Boys (%)	Girls (%)	Boys (%)	U	p**
Physical activity (at least one hour daily)	10	19	8	21	12215.00	0.001
Fruit consumption (eat fruit daily)	35	27	46	34	16700.50	0.097
Vegetable consumption (eat vegetables daily)	35	26	38	32	18072.00	0.708
Sweets consumption (eat sweets daily)	-	-	37	24	15134.00	0.002
Soft drink consumption (drink soft drinks daily)	22	28	24	19	18355.00	0.911
Smoking (at least once a week)	17	19	24	27	18270.00	0.828
Alcohol use (have been drunk at least twice)	29	34	36	62	11969.00	0.001
Any kind of drug use (tried consumption at least once)	-	-	11	28	15143.00	0.001

\* mean age: 15.1 years (based on the 2009/2010 survey; Currie et al., 2012)

\*\* mean age in our study: 16.8 age

\*\*\* significance obtained using the Mann-Whitney U test

Table 2. Means and standard deviances of personality related factors by gender.

Variables	N	Min.	Max.	Mean (boys/girls)	Std. Deviation (boys/girls)	p**
Purposes (PIL)	385	20,00	140,00	103,28/100,27	16,34/15,81	0,068
Extrinsic goals (AI-EX):	385	6,00	30,00	21,77/20,22	4,88/4,38	0,001
-fame	385	2,00	10,00	6,57/5,96	2,06/1,81	0,006
-appealing image	385	2,00	10,00	7,47/6,97	1,83/1,73	0,002
-financial success	385	2,00	10,00	7,71/7,28	1,87/1,78	0,021
Intrinsic goals (AI-IN):	385	6,00	30,00	24,96/25,91	3,42/3,19	0,005
-personal growth	385	2,00	10,00	8,59/8,84	1,39/1,25	0,062
-affiliation	385	2,00	10,00	8,75/9,03	1,40/1,31	0,040
-community contribution	385	2,00	10,00	7,62/8,02	1,70/1,50	0,015
Health goals (AI-HG)	385	2,00	10,00	8,95/8,80	1,29/1,36	0,280
Aspiration index (AI)*	385	-8,00	17,00	3,19/5,68	4,64/4,67	0,001

\* the *Aspiration index* shows the general goals orientation and it is calculated by the differences between the persons' intrinsic and extrinsic goals (Martos, Szabó & Rózsa, 2006).

\*\* significance obtained using the independent sample t-test

Analyses found associations between the personality variables and the health behavioral items, and these results are presented in Table 3.

Higher presence of purposes in life (PIL) was significantly correlated with the amount and the frequency of physical activity and with a healthy diet (fruit and vegetable consumption). Health goals (AI-HG) were found to be positively correlated with health behavior related factors, such as the amount of physical activity and healthy diet, and negatively with the amount of substance use. This association appears implicit, since the setting of health-related goals likely manifest in accordance with one's daily behavior.

Other results of the correlation analysis were the relation between the health-related factors and intrinsic and extrinsic goals. Specifically, fruit and vegetable consumption showed significant association with intrinsic goals, physical activity with extrinsic goals, and the health-risk factors of sweets and soft drinks consumption, smoking, alcohol use, and drug initiation with extrinsic goals. These asso-

ciations support the idea that both intrinsic and extrinsic goals may exercise positive or negative influence on health-related behavior, yet extrinsic goals are preponderant role-factors in behaviors characterized by risk assuming in daily activities.

Beyond correlation analysis, we performed t-test analysis with the participants' purposes and life-goals as dependent variables and health-protective behaviors (physical activity, diet) and health-risk behaviors (smoking, alcohol and drug consumption).

To perform these analyses we classified the responses obtained from the *quantity of physical activity* in two categories: low values (0-3 days in a week), and high values (4-7 days in a week). The *healthy diet* responses were merged into two variables (fruit- and vegetable- consumption / sweets- and carbonated soft drink consumption) and dichotomized into two categories, high consumption (2-3 times weekly to more than once a day) and low consumption (never to 1 times per week). We dichotomized the *smoking* frequency variable into

high (at least 1 times per week to daily) and low frequency (never to monthly). *Frequency of alcohol consumption* variable was dichotomized into high (2-3 times to more than 10 times) and low frequency (never to once), and *frequency of drug consumption* into low (never tried) and high values of reported consumption (once to more than 40 times). The results of the two tailed t-test analyses are reported here in Table 4.

These results showed that teenagers engaging in the higher quantity of *physical activity* scored higher on purposes in life ( $t=3.12$   $DF=383$ , two-tailed  $p=0.001$ ), extrinsic goals ( $t=1.99$ ,  $DF=383$ , two-tailed  $p=0.047$ ) and health goals ( $t=1.96$ ,  $DF=383$ , two-tailed  $p=0.049$ ). Adolescents consuming the high level of *fruits and vegetables* scored significantly higher on purpose in life ( $t = 2.51$ ,  $p < .018$ ), and overall intrinsic goals ( $t = 3.95$ ,  $p < .001$ ), as well as intrinsic goals such as personal growth ( $t = 4.32$ ,  $p < .001$ ), affiliation ( $t = 2.55$ ,  $p < .029$ ), community contribution ( $t = 2.41$ ,  $p < .016$ ), and general intrinsic-oriented aspiration index ( $t = 2.51$ ,  $p <$

$.012$ ). Those with a *high level of sweets- and carbonated soft drink consumption* scored significantly lower on health goals ( $t = -1.89$ ,  $p < .049$ ) and on the extrinsic-oriented aspiration index ( $t = -2.02$ ,  $p < .044$ ). Those with *high frequency of smoking* (see Table 4) scored significantly higher on purposes in life ( $t = 2.38$ ,  $p < .018$ ), and lower on financial success ( $t = -2.29$ ,  $p < .022$ ) and higher on community contribution ( $t = 2.54$ ,  $p < .011$ ). Adolescents with *high frequency of alcohol use* scored lower on extrinsic goals ( $t = -3.70$ ,  $p < .001$ ), financial success ( $t = -4.08$ ,  $p < .001$ ), fame ( $t = -2.00$ ,  $p < .046$ ), appealing image ( $t = -3.25$ ,  $p < .001$ ) and higher on aspiration index ( $t = 3.81$ ,  $p < .001$ ). Those with a *low level of drug consumption* (trying at least once any kind of drug) scored significantly lower on extrinsic goal ( $t = -2.72$ ,  $p < .007$ ), financial success ( $t = -3.01$ ,  $p < .003$ ), appealing image ( $t = -2.28$ ,  $p < .023$ ), and higher on health goals ( $t = 2.44$ ,  $p < .016$ ) and aspiration index ( $t = 2.92$ ,  $p < .004$ ).

Table 3. Correlation coefficients of showing association between variables of Health/risk behavior, Purposes in life, and Aspiration index (extrinsic, intrinsic, health-goals and aspiration index).

Personality factors	Correlations <sup>a</sup>					
	Physical activity	Fruit and vegetable consumes	Sweets and soft drinks consumes	Smoking	Alcohol use	Drug use
Purposes (PIL)	,230** ,001	,138** ,007	-,045 ,377	-,125* ,014	-,050 ,331	-,054 ,288
Extrinsic goals:						
- fame	,151** ,003	-,014 ,780	,081 ,113	,063 ,215	,241** ,001	,129* ,011
- appealing image	,110* ,030	-,001 ,000	,036 ,482	,024 ,318	,133** ,009	,026 ,611
- financial success	,141** ,005	-,016 ,761	,070 ,167	,027 ,598	,216** ,001	,114* ,025
- personal growth	,128* ,012	,052 ,313	,099 ,053	,123* ,016	,262** ,001	,151** ,003
Intrinsic goals:						
- affiliation	,050 ,332	,225** ,001	-,069 ,175	-,051 ,319	-,035 ,493	-,027 ,597
- community contribution	,036 ,483	,210** ,001	-,035 ,490	-,011 ,829	-,055 ,282	,025 ,618
Health goals	,104* ,042	,158** ,002	,036 ,484	,027 ,601	,051 ,319	-,061 ,230
Aspiration index	-,007 ,890	,159** ,002	-,084 ,099	-,119* ,020	-,070 ,168	-,025 ,624
	,159** ,002	,112* ,028	-,079 ,123	-,108* ,034	-,059 ,249	-,138** ,007
	-,112* ,028	,142** ,005	-,127* ,013	-,115* ,024	-,259** ,001	-,159** ,002

a Spearman rho bivariate correlation.

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

a. Listwise N = 385



Table 4. T-test analysis of associations between variables of Health/risk behavior, Purposes in life, and Aspiration index (extrinsic, intrinsic, health-goals and aspiration index).

Personality factors	Health behavior factors					
	Physical activity	Fruit and vegetable consumes	Sweets and soft drinks consumes	Smoking	Alcohol use	Drug use
Purposes (PIL)	3.21**	2.51**	-0.45	2.38**	1.92	1.32
Extrinsic goals:	1.99*	0.19	1.44	-0.93	-4.37**	-2.72**
- fame	1.38	-0.01	1.20	0.10	-2.63**	-1.57
- appealing image	1.77	-0.22	0.69	-0.20	-3.67**	-2.28*
- financial success	1.85	0.72	1.71	-2.29*	-4.70**	-3.01**
Intrinsic goals:	0.16	3.95**	-0.88	1.31	1.61	0.38
- personal growth	0.39	4.32**	-0.14	0.72	1.66	-0.87
- affiliation	0.84	2.20**	-1.12	-0.43	0.27	0.56
- community contribution	-0.69	2.41**	-0.87	2.54**	1.72	1.03
Health goals	1.96*	0.04	-1.97*	1.53	0.86	2.44**
Aspiration index	-1.81	2.45**	-2.02*	1.82	5.46**	2.92**

\*p&lt;0.05.

\*\*p&lt;0.01.

df=383.

These results support the assumption that the higher level of intrinsic goals (personal growth, affiliation, and community contribution), the health goals, and purposes in life influence in a positive manner the adolescents' health-related behavior. In order to establish the predictive role of the variables of interest in this study, we conducted multivariate linear regression analysis.

Table 5 presents regression estimates for the personality variables (extrinsic goals, intrinsic goals and aspiration index) and demographic and personal variables (age, gender, school type, school performance) as control variables in the models. Health behavior variables were dependent variables in the regression analyses, while the personality factors were treated as independent variables. *Purposes in life* were significant predictors of the amount of physical activity (as a strong positive predictor) and of smoking (as a negative predictor) among the health behaviors. Among extrinsic goals, *appealing image* was positive predictor of alcohol use and consumption of sweets/soft drinks, and *financial success* (both extrinsic goals) was a positive predictor of alcohol use, and smoking. In the case of intrinsic goals, *personal growth* was a positive predictor of fruit and vegetable consumption, and a

negative predictor of smoking and drug use. *Affiliation* (intrinsic goal) was a positive predictor of physical activity and a negative predictor of alcohol use. Concerning *health goals*, they were found to be strong negative predictors of all the health risk behavioral factors (sweets and soft drinks consumption, smoking, alcohol use, and drug use).

Among the control variables, *age* was associated with alcohol and drug use (as a positive predictor), while *gender* was a significant predictor in physical activity (as a negative predictor) and alcohol and drug use (as a positive predictor). *School type* was found to be a positive predictor of the sweets and soft drinks consumption and smoking. *School performance* was a negative predictor of smoking. The predictors included in the models explained 16% (physical activity), 8 % (fruit and vegetable consumption), 9% (sweets and soft drinks consumption), 16% (smoking), 23% (alcohol use), and 12% (drug use) of the total variance.

The study results suggest that extrinsic goals and its subscales (financial success, fame, and appealing image), certain purposes in life, lower health goals, and an extrinsic-oriented aspiration index are likely to exert a significant role in health-related behaviors.

Table 5. Multivariate linear regression analysis of the personality variables and the health-behavior factors.

Independent Variables	Physical activity	Fruit and vegetable consumption	Sweets and soft drinks consumes	Smoking	Alcohol use	Drug use
Purposes (PIL)	4.09 <sup>a***</sup>	1.42	0.14	-1.92*	-0.71	-1.37
Fame (AI-EG)	-0.14	-1.06	-0.34	-1.00	-1.26	-1.32
Appealing image (AI-EG)	0.98	-1.19	0.14*	0.81	2.34**	1.48
Financial success (AI-EG)	0.60	1.12	1.83	2.06*	3.74***	1.27
Personal growth (AI-IG)	-1.08	2.08*	0.55	-2.17*	-0.64	-2.00*
Affiliation (AI-IG)	1.89*	1.24	-0.28	1.19	-2.16*	-0.81
Community contribution (AI-IG)	-1.36	1.51	-1.47	-1.47	-0.22	0.63
Health goals (AI-HG)	1.31	1.10	-2.04*	-3.09**	-3.75***	-3.57***
Age	-0.15	-1.81	-1.33	0.91	2.32**	1.48
Gender	-4.86***	0.57	3.00*	0.71	-6.19***	-4.87***
School type	-0.28	0.19	1.88*	2.23*	0.06	-0.98
School performance	-0.73	-1.08	-1.89	-4.00***	-1.50	-0.66
Constant	1.03	3.21***	3,53***	1.19	0.61	1.51
R <sup>2</sup>	0.16***	0.08***	0.09***	0.16***	0.23***	0.12***

\*  $p < 0.05$ .\*\*  $p < 0.01$ .\*\*\*  $p < 0.001$ ; one-tailed  $t$ -test.<sup>a</sup> Unstandardized regression coefficients (B).

## DISCUSSION

The first hypothesis of this study was the presumption that personality-related factors would differ according to the participating teenagers' gender, age, school-type and school performances.

Our analyses supported that extrinsic goals were more important for boys predominantly in the case of financial success, fame and the appealing image subscales, while girls reported significantly higher tendency toward intrinsic goals, such as the affiliation and community contribution subscales. Health goals did not show significant differences, but girls scored higher on the intrinsic-oriented aspiration index.

We observed relevant differences in the health-related behavior between girls and boys. Boys reported higher frequency in the level of physical activity, sweet consumption and alcohol use. In comparison, girls were more likely to try drugs, and to consume fruits in their diet. Studies with Hun-

garian samples have found that concerning intrinsic aspirations, health goals and interpersonal relationships were the most important for females, while for males, personal growth was the most salient aspiration (Pauwlik, & Margitics, 2008; Williams, Hedberg, Cox, & Deci, 2000). We also found significant differences regarding the participants' age in terms of health goals, with higher scores among the students from 12th class. Regarding school type, we found significantly higher value that ascribed to intrinsic goals and their factors such as personal growth, community contribution, and on the aspiration index among students from grammar schools, while health goals proved to be more characteristic of those from secondary technical schools. Those with the highest level of school performances reported more intrinsic goals, especially on the personal growth, affiliation and community contribution subscales, with the exception of higher values on the inward-oriented aspiration

index. When it comes to differences in school performances and the perspective of purposes and goal, researchers have identified that commitment to personal growth and the having highly intrinsic-oriented life goals is highest among high academic achievers (Bronk, Finch, & Tasneem, 2010). Thus, the obtained results in this study support our first hypothesis.

The second hypothesis postulated that adolescents reporting having defined purposes in life, and intrinsic and health-related goals, would adopt more healthy behaviors (e.g., frequent physical activity and healthy eating). Having extrinsic goals was believed to decrease the level of health-related goals and the lower values on the aspiration index would relevantly be associated with health-risk behaviors. This study determined associations between selected personality variables and health behavior items. Our analyses revealed that having purposes in life was related positively with the amount of physical activity and healthy diet (fruit and vegetable consumption). Health goals showed a positive correlation with health behavior factors, such as the amount of physical activity and having a healthy diet. Studies highlight the importance of diet and its influence on health among adolescents (Jacka, Kremer, Berk, de Silva-Sanigorski, Moodie et al., 2011). Our results support that there is a relationship between intrinsic goals and fruit and vegetable consumption, and also a relationship between extrinsic goals and physical activity, sweets and soft drinks consumption, smoking, alcohol use, and drug use. Previous studies have concluded that there is an association of adolescent risk-behavior and the adoption of a more unhealthy diet and the lack of physical activity, as well as poorer perceptions about physical and mental health (Dube, Thompson, Homa, & Zack, 2013). In our sample, teenagers with highly defined purposes in life and who set extrinsic and health goals were the most likely to adopt a lifestyle involving physical activity. The t-test results for high level of fruit and vegetable consumption showed significant relationship with purpose in life, intrinsic goals, personal growth, affiliation, community contribution, and intrinsic-oriented aspiration index. Furthermore, health goals and extrinsic-oriented aspiration index were significantly correlated with high level of sweets- and carbonated soft drink consumption. Among the health-risk factors, purposes in life, financial success, and community contribution showed to play a significant role in smoking. Extrinsic goals, such as financial success, fame, appealing image, and aspiration index were significantly associated with a higher frequency of alcohol use. Extrinsic goals, such as financial success, ap-

pealing image and health goals, along with an extrinsic-oriented aspiration index showed to play a significant role in trying at least once any kind of drug. We can conclude that higher level of intrinsic goals might exert an important role in adolescents' healthy diets, and also the intrinsic goals subscales (personal growth, affiliation, and community contribution), health goals, and purposes in life. Importance of extrinsic aspirations proved to be a negative predictor while the tendency toward intrinsic aspirations was a positive predictor of purposes in life. Findings from other authors also indicate that intrinsic and extrinsic life goals were predictors of well-being and purposes in life (Wu, Rose, & Bancroft, 2006).

According to the results of the regression analysis, the purpose in life variable was a significant predictor of physical activity (as a strong positive predictor) and smoking (as a negative predictor). Among extrinsic goals, appealing image was a positive predictor of alcohol use and financial success (both extrinsic goals) was a contributor for alcohol use and smoking. Personal growth, as an intrinsic goal, was a positive predictor of fruit and vegetable consumption, and a negative predictor of smoking and drug use, while affiliation was a positive predictor of physical activity and a negative predictor of alcohol use. The health goals variable manifested as a strong negative predictor of the health-risk behavioral factors, such as sweets and soft drinks consumption, smoking, alcohol use, and drug use. Studies investigating adolescent health-behavior have found that among risk behaviors, smoking was significantly related to stronger extrinsic aspirations, and these aspirations were relevant predictors of tobacco, alcohol, and drug consumption (Deci & Ryan, 2008). In their explanation, the authors emphasized that orientation toward extrinsic goals implied short-term need satisfaction and risk adoption, while the pursuit of intrinsic goals determined long-term goals and aspirations as well as health behavior (Martos & Kopp, 2012). Thus, the previously presented and discussed results confirm our second hypothesis.

Our study showed that the health-risk behaviors bear a relevant influence through the predominance of extrinsic goals and its subscales (financial success, fame, and appealing image), fewer defined purposes in life, lower health goals, and an extrinsic-oriented aspiration index. Nevertheless, the cross-sectional study design does not permit us to conclude that these findings are cause-and-effect relationships, and this is an important limitation of our study. Another limitation of our study is the narrow age distribution, which might bias the reported age differences. However, our findings are

important because they challenge professionals who design and implement school health-promotion programs to consider the teenage personality aspects when developing strategies and activities targeting improvements in dietary and physical activity or the avoidance of health-related risk-behaviors.

Aknowledgment: This paper is based on the study authored by Csibi et al. (2016) published in a printed volume in Hungarian language.

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**COMPARATIVE ANALYSIS OF ACTIVE AND PASSIVE RECREATIONAL  
CONSUMPTION HABITS OF DISABLED CHILDREN LIVING IN THE NORTHERN  
GREAT PLAIN REGION**

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Laoues-Czimbalmos N., Müller A., & Bácsné Bába É. (2019): Comparative analysis of active and passive recreational consumption habits of disabled children living in the Northern Great Plain region. *Különleges Bánásmód*, 5. (1). 31-39. DOI 10.18458/KB.2019.1.31

**Abstract**

In our research, we studied the leisure habits of students with disabilities (8-18 years, n = 289) living in the North Great Plain region using a questionnaire method. The aim of the research was to examine the leisure habits of children with disabilities in the region, their main characteristics and their recreational attitudes. Our goal was also the gender test to see whether there was a significant difference between the sexes and how this correlated with the results of the study of leisure habits in the wild. We sought to find out what the most common leisure time activities for general and high school students with disabilities are, how does this affect genders? What is their attitude towards spending time on leisure? What are their sporting habits and sporting consumption? We have found that recreational consumption of young people with disabilities is similar to the results of surveys carried among normal children as passive leisure time is dominant (listening to music, watching TV). In girls' leisure time, the preference for listening and reading is more dominant while watching TV, especially popular sports channels, is more characteristic of boys. For leisure-time activities, staying fit, trying out new things, and community experience is crucial for young people with disabilities. Recreational sports prove to be popular, as more than 50% of both girls and boys say they are engaged in recreational sports.

**Keywords:** disabled students, leisure consumption, sports, attitudes

**Disciplines:** economics, sociology, special education

**Absztrakt**

**AZ ÉSZAK- ALFÖLDI RÉGIÓBAN ÉLŐ FOGYATÉKOS GYEREKEK AKTÍV ÉS PASSZÍV REKREÁCIÓS FOGYASZTÁSI SZOKÁSAINAK ÖSSZEHASONLÍTÓ ELEMZÉSE**

A kutatásunkban az észak-alföldi régióban élő fogyatékos tanulók (8-18 év, n= 283) szabadidős fogyasztási szokásait vizsgáltuk kérdőíves módszerrel. A kutatás során célunk volt megvizsgálni a régióban élő fogyatékos gyerekek szabadidős fogyasztási szokásait, annak főbb jellemzőit, a szabadidős attitűdjüket. Célunk volt a gender vizsgálat is, hogy a nemek tekintetében tapasztalunk-e szignifikáns eltérést és ez az eredmény hogyan viszonyul az épek körében végzett szabadidőfogyasztási szokások vizsgálati eredményeihez. Választ kerestünk arra, hogy mik a fogyatékossgal élő általános és középiskolás tanulók leggyakoribb szabadidő tevékenységei, ez hogyan alakul a nemek viszonylatában? Mi jellemzi a szabadidő eltöltéshez kapcsolódó attitűdjüket? Mi jellemzi a sportolási szokásaikat, sportfogyasztásukat? Megállapítottuk, hogy a fogyatékossgal élő fiatalok szabadidős fogyasztása hasonlóan alakul, mint azt az épek körében végzett vizsgálatok eredményei is mutatnak, azaz a passzív szabadidő-eltöltés dominál (zenehallgatás, tv nézés). A lányok szabadidős fogyasztásában a zenehallgatás és olvasás preferenciája

dominánsabban jelenik meg, míg a TV-nézésben a sportcsatorna népszerűsége a fiúk körében nagyobb, mint a lányokéban. A szabadidős tevékenységek esetében a fitnek maradni, az új dolgok kipróbálása, a közösségi élmény meghatározó a fogyatékossgal élő fiatalok esetében. A szabadidősport népszerűnek bizonyul, hiszen mind a lányok, mind a fiúk több mint 50%-a nyilatkozta, hogy végez szabadidős sportot.

**Kulcsszavak:** fogyatékos diákok, szabadidős fogyasztás, sportolás, attitűd

**Diszciplina:** gazdaságtudomány, szociológia, gyógypedagógia

According to a survey conducted by the WHO and the World Bank (2011) there are more and more people living with disabilities. The proportion of people with disabilities is on the rise accounting for 15% of the world's population today. According to the Central Statistical Office (2014), the number of persons with disabilities in Hungary was 577 thousand in 2001, representing 5.7% of the country's population, however, some estimates suggest that their number could be one million in Hungary. The right of people with disabilities appeared in the 1998 Equal Opportunities Act, and then in 1999 in the Disability Program regulations concerning leisure and sport were issued. The issue of disability had appeared earlier in sports sciences, utilizing the preventive, recreational and rehabilitative effects of sport and its social integration function. Recreational activities, including sports, received special attention in the social integration of persons with disabilities, in exercising their human rights in their therapeutic treatment or even in improving their quality of life.

## LITERATURE REVIEW

Recreation is the culture of spending leisure time, including leisure activities, whether they are mental or physical activities. Its meaning embraces notions such as regeneration, recovery or reintegration. It means the reproduction or extended reproduction of energies of a person tired of work (Dobozy & Jakabházy, 1992, Kovács, 2003). Its purpose is threefold, as both its relaxing and developmental role can be observed (Borbély and Müller, 2008), supplemented nowadays with its entertainment function (Révész et al., 2015).

In leisure activities, trends in the field of sport and fitness demonstrate that the entertainment and experiential functions are increasingly important motivations in consumer habits (Müller, 2009a, Müller et al., 2017). The role of leisure and recreational activities is gaining increasing attention, as many Hungarian (Michalko, 2012, Mosonyi et al.,

2013, Boda et al., 2015) and international (Dobay, Bánhidi & Simonek, 2018) scholars place these themes in the focus of their research.

Leisure activities are playing an increasingly important role in tourism, as guests need the development of recreational offerings, making it a factor of competitiveness. The role and importance of leisure supply in tourism are also being studied by several Hungarian (Borbély & Müller, 2015, Bánhidi, 2016) and international (Shaww & Coles, 2004, Bullock, Mahon and Killingsworth, 2010) researchers. A health tourism research (Müller et al., 2018) reports that asthmatic patients on a 3-week rehabilitation also require and use different leisure-time offerings during their treatment (tours, other sports programs, massages, wellness) aimed at improving their condition and health, that is, their quality of life.

In Hidvégi and Honfi's (2008) research, it is stated that although recreation would be of great importance to persons with disabilities as it could improve their quality of life and condition, they have few opportunities to use it in Hungary. Leisure and recreation have been shown to contribute to the mental and physical health of non-disabled and disabled people (Coleman & Iso-Ahola, 1993; Coyle et al., 1991; Roberts et al., 1989, Schreyer, 1984).

Nowadays, numerous researches underline that various recreational activities can be used for therapeutic purposes proving that patients' condition and quality of life are improved after the therapeutic use of the different recreational programs (Bedini, 2000; Hodges, Luken & Zook, 2001; Broach & Dattilo, 2003; Funderburk & Callis, 2010; Iwasaki, Coyle & Shank, 2010; McCornic, Snethen & Smith, 2012; Lawson, Foster & Harrington, 2014; Gaskell & Janssen, 2014; Davis & Nelson 2015; Alysha, Walter & Bryan, 2017). Several international studies have examined the national economic aspects of the physical activity of persons with disabilities (Johnson, 2009), the factors supporting and inhibiting physical activity (Block, Taliaferro & Moran, 2013), the role of in-



clusive sport for mentally disabled in their socialization (Bota, Teodorescu & Serbanoiu, 2014), physical activity, lifestyle and daily life of disabled people, (Kisow, 2015) or the labour market opportunities of people with disabilities (Balázs-Földi & Dajnoki, 2016; Mór  & Mez , 2016).

The importance of regular sports for people with disabilities, among the leisure activities, is emphasized by several authors (S ringern , 2014; Gomb s, 2016; Laoues, 2017), as they can help them improve their condition and quality of life, socialization and gaining of community experiences.

## METHOD

The research was carried out in the three counties of the Northern Great Plain Region (Hajd -Bihar, J sz-Nagykun-Szolnok and Szabolcs-Szatm r-Bereg), among the students who participate in special and integrated education. respondents' study at institutions of primary and secondary education. An online questionnaire was applied in the research. The questionnaires were completed by 283 students. The students completed the questionnaires with the help and guidance of interviewers (teachers). The aim of the research was to examine the recreational habits of children with disabilities living in the region, the main characteristics of these habits and their leisure attitudes. In addition, our goal was to examine whether there is a

significant difference between the sexes and how our results compare to the results of research leisure habits of normal children.

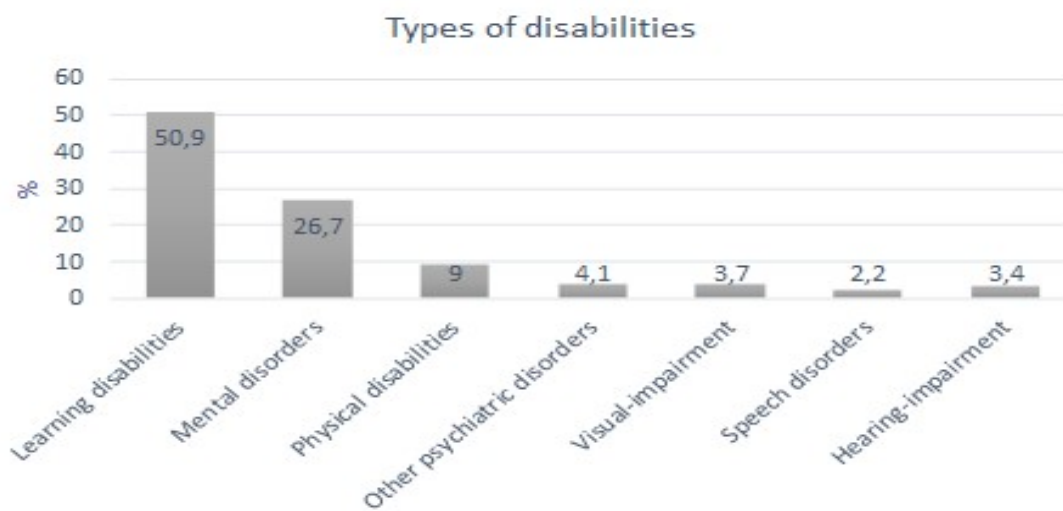
In our research we were looking for the answer to the following questions: What are the most common leisure activities of primary and secondary school students with disabilities and are there any gender differences? What characterizes their leisure time attitude? What characterizes their sports habits and sports consumption?

Before the research, we assumed that passive (TV, listening to music) and active (sports) recreational activities are dominant in leisure consumption. We also assumed that sports and active leisure are more popular among boys with disabilities than among girls.

## Sample

In the questionnaire respondents were asked to specify what type of disability they had. 50.9% of the respondents had some disability in learning, 26.7% were mentally handicapped and 9% were physically disabled. The pupils of disabilities participated in the research in almost the same proportion: Pupils with other psychiatric disorders accounted for 4.1%, visually impaired 3.7%, pupils with impaired hearing 3.4% and pupils with speech disabilities 2.2%. The disability-specific distribution of respondents is shown in Figure 1.

Figure 1.: Disability-specific distribution of respondents (Source: Authors' editing)



*Distribution of respondents by school type*

54% (n = 153) of students participating in the research were upper graders, 39.2% (n = 111) of high school students, 6.8% (n = 19) of them lower-graders. Figure 2. shows the number and percentage of elementary and secondary school students participating in the measurement.

*Distribution of sample by county:*

38.9% of the respondents are from Hajdú-Bihar county, 33.8% live in Szabolcs-Szatmár-Bereg

county and 27.3% in Jász-Nagykun Szolnok county (see Figure 3).

*Settlement type distribution by gender*

A higher proportion, 50.9%, of the surveyed students are urban residents, of which boys account for 58.9% and girls 41.7%. This is followed by 38.1% of respondents living in a village, 35.1% of them being boys and 41.7% girls., 11% live in a county seats, 6% of whom are boys and 16.7% girls. Figure 4 shows the distribution of settlement type by gender.

Figure 2.: Distribution of respondents by school type (Source: Authors' editing)

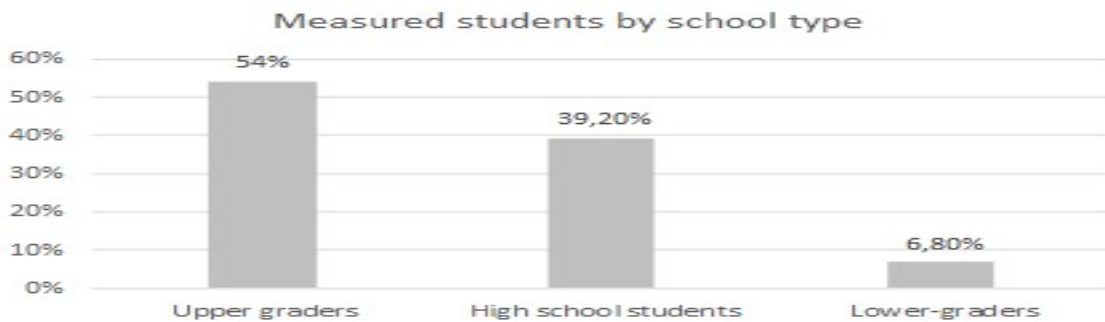


Figure 3.: Distribution of respondents by county (Source: Authors' editing)

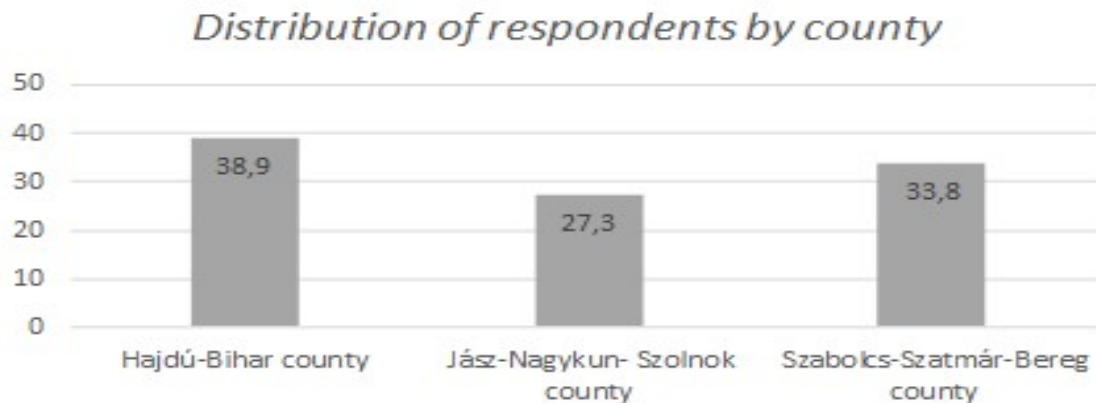
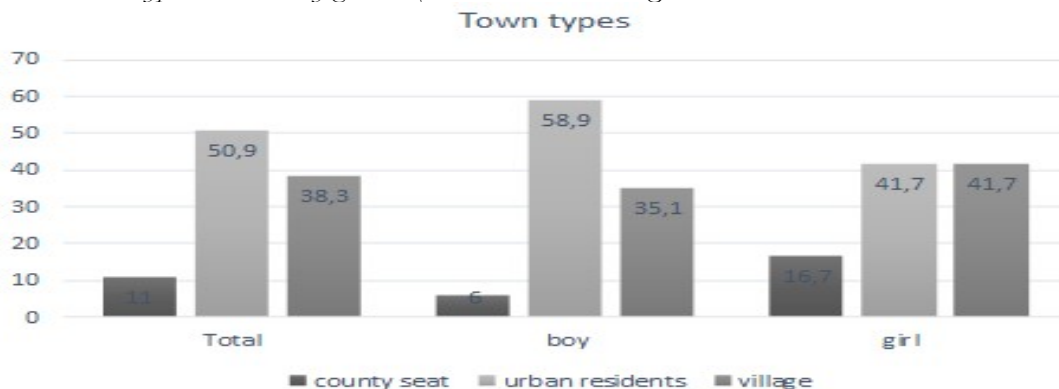


Figure 4.: Settlement type distribution by gender. (Source: Authors' editing)



## Methods

Data collection took place in June 2018. The questionnaires were completed anonymously, participation in data collection was voluntary. After data retrieval, results were analysed with the SPSS statistical program. In addition to the basic statistics  $\chi^2$  test was employed to test the relationships. The respondents studied in institutions of primary and secondary education, girls accounting for 46.5%, 132 people and boys for 53.5%, 151 people in the sample ( $n = 283$ ).

## Results

### *Habits of spending leisure time*

The percentage breakdown of leisure time habits of the interviewed students by gender is shown in Table 1.

In most of the students' leisure activities listening to music is the most frequent (71.6%). In the sample ( $n = 283$ ) there is a significant difference ( $\chi^2 = 20,666$ ,  $df = 1$ ,  $p = 0.000$ ), 84.7% of girls had chosen listening to music as a leisure activity, while only 60.3% of boys had chosen it as a recreational activity. In addition to listening to music, TV viewing was also identified as an important intellectual leisure activity, with 52.8% of the respondents choosing it. In the case of television, there was no significant difference by gender, this is only a tendency (girls 49.6%, boys 55.6%). TV watching habits of the surveyed students revealed that there was a significant difference between the genders in watching the sports channel. The consumption of sports channels is more typical for boys (17.9%) than for girls (3.1%). In terms of reading activity of young people, a significant difference ( $\chi^2 = 14,871$ ,  $df = 1$ ,  $p = 0.000$ ) was found by gender. Girls tend to read more in their leisure time (26.7%) than boys (9.3%).

The least preferred activities in the leisure time were learning (13.1%), board games (13.5%), and

competitive sports, however, we could not show a statistically verifiable difference by gender. Our gender-based comparison confirmed the tendency that girls prefer listening to music and reading in their leisure time. As for watching TV, the popularity of the sports channel among boys is greater than among girls. If we look at research done among normal children, in many cases similar results are found in the field of leisure consumption.

Murányi's (2010) recreational research among normal young people ( $N = 1570$ ) concludes that young people prefer individual and passive activities in their leisure time: they mostly use the Internet, listen to music, watch television or videos (DVD) These findings are supported by Szabó (2006) who found that for young people in Budapest the most frequent leisure activity was listening to music, reading newspapers and watching TV. Leisure habits amongst normal youth are similar to the leisure-time results of the disabled youngsters in our research.

In the case of the normal students, Müller's (2009b) research showed different results. She examined 260 college sports majors' leisure time activities and found that career orientation highly influenced the results as 65.6% of the students (172 people) do sport in their leisure time and 59, 2% (155 persons) attends a sports event as a spectator (passively) or as an athlete (actively).

However, in addition to an active lifestyle, leisure activities typical for "relaxation" can be observed in their case as well, for example 58.4% of the students also marked "TV, DVD, watching movies" as a frequent leisure activity. Szabó (2006) showed a difference in the preference system of normal women and men: men prefer to be engaged with computer, sports and sporting events, while women prefer cultural programs such as going to classical music concerts, the cinema and the theatre.

Table 1.: Leisure time spending habits of respondents by (Source: Authors' editing)

Leisure time spending habits	Boy yes	Girl yes	Boy no	Girl no	p based on $\chi^2$ test
TV	84 (55,6%)	56 (49,6%)	67(44,4%)	66 (50,4%)	,313
Competitive sport	22 (14,6%)	12 (9,2%)	129 (85,4%)	119 (90,8%)	,164
Reading	14 (9,3%)	35 (26,7%)	137 (90,7%)	96 (73,3%)	,000
Listening to music	91( 60,3%)	111 (84,7%)	60 (39,7%)	20 (15,3%)	,000
Watching sport channel	27(17,9%)	4(3,1%)	124 (82,1%)	127 (96,9%)	,000
Board games	21(13,9%)	17(13,1%)	130 (86,1%)	113 (86,9%)	,839
Learning	16 (10,6%)	21(16,0%)	135(89,4%)	110 (84,0%)	,178

*Attitudes connected with leisure time spending*

In addition to mapping leisure time habits, the survey also tested how much importance was given to the following factors: acquiring new skills (45.6%), staying fit (71.4%), trying new things (58.3%), meeting new people (54.4%), shopping / fashion (36.7%), hobby (60.1%). 48.3% of the boys consider the "acquiring new skills" important while the majority of girls (49.6%) opted for the "neutral" answer. On the other hand, the question of how important shopping and fashion was reversed the response rate as in the case of girls, 47.3% considered it important whereas 43% of boys rated it as neutral. The importance of health and fitness viewed as something positive for young people, boys (73.5%) and girls (69.5%). As for "hobby", "meeting new people" and "trying new things", the results show that they play a major role in leisure activities and it is also apparent that motivation is more prevalent among boys (see Table 2). In the study of leisure-time attitudes (acquiring

new skills, fitness, new things, meeting new people, fashion, hobbies) responses showed significant differences by gender ( $p < 0.05$ ).

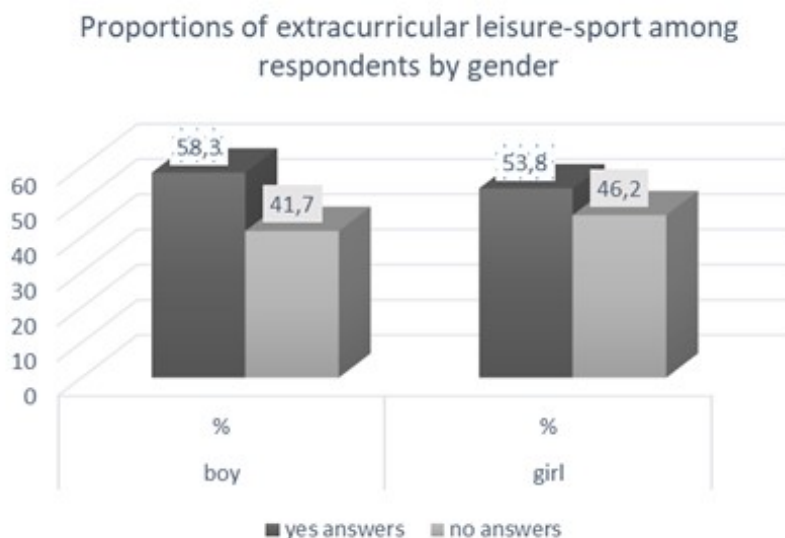
*Leisure-sport preferences*

Out of the recreational activities of young people, competitive sport was one of the least popular (12.1%). Competitive athletes are those who have sports club membership and have trainings at least two to three times a week out of school. If we look at the proportion of extracurricular leisure-time sports among students, it is as follows: 58,3% of the boys are involved in extracurricular leisure-sport activities while for the girls it is 53,8%. 57,8% of boys do sport regularly in their leisure time (once a week, 2-3 times a week, daily) while for the girls it is only 50,4%. In summary it can be stated that over half of the students do not do sport competitively, however, they do sport regularly on the hobby level, the main motivations being the good company, fun and relaxation (figure 5).

Table 2.: Leisure time spending attitudes of respondents by gender (Source: Authors' editing)

Attitudes connected to leisure time spending	Acquiring new skills		Staying fit		Trying new things		Meeting new people		Shopping/ Fashion		Hobby	
	Boy %	Girl %	Boy %	Girl %	Boy %	Girl %	Boy %	Girl %	Boy %	Girl %	Boy %	Girl %
Important	48,3	42,7	73,5	69,5	66,2	49,6	57,0	51,9	27,8	47,3	66,2	53,4
Not important	7,9	7,6	5,3	6,1	6,0	8,4	6,6	9,2	29,1	17,6	6,0	6,1
Neutral	43,7	49,6	21,2	24,4	27,8	42,0	36,4	38,9	43,0	35,1	27,8	40,5

Figure 5.: Proportions of extracurricular leisure-sport among respondents by gender (Source: Authors' editing)



### *The importance of spending time with the family*

The importance of leisure time spent with the family was examined through the following question: "How much do you consider it important to spend time with the family?" 76.3% of the respondents think that family time is important, of whom 80.9% are boys 72.8% are girls. For girls, leisure time sports with the family are more important than for boys. Thus, there is a significant difference ( $\chi^2 = 285.568$ ,  $df = 6$ ,  $p = 0.000$ ) in the answers of the two sexes. In women, the family appears as a dominant value category. Szabó (2006) also found differences in the value orientation of normal young people: For women health, friendship, honesty, family, inner peace, while for men money and material goods are more important. Thus, Szabó (2006) also emphasized the importance of the family in the value preferences of women based on the results of his research.

### **Discussion**

In the life of children with disabilities, recreational activities are of paramount importance as they can contribute to skills development, improving their health, helping the process of socialization and integration. Experience and skills developed during leisure activities can also help them in the learning process. In our survey, we found that passive options (reading, listening to music, watching TV) are predominant in the recreational activities of children with disabilities. In the case of leisure activities, for young people with disabilities, staying fit, trying out new things, and communal experience are the dominant motivating factors. Recreational sport proved to be popular as more than 50% of both girls and boys say they regularly do some kind of recreational sport.

### *Limitations*

26,7% of our respondents were mentally handicapped and in spite of the fact that they were assisted by teachers while completing the questionnaire it had to be taken into account when analysing the answers. Results were, thus, assessed in the awareness of this limitation.

### **Conclusions**

Disabled students' leisure consumption is dominated by spending leisure passively, with listening to music and watching TV being the most frequent recreational activities. Based on secondary research this recreational consumption pattern of young people with disabilities was similar to that of normal youth. Our gender-based comparison con-

firmed the tendency for girls to prefer listening to music and reading while boys showed higher interest in watching sport channels. For leisure activities, staying fit, trying out new things, and community experiences are essential for disabled students. Competitive sports are not the most popular leisure activities for young people with disabilities, but leisure sports were found to be popular as more than 50% of girls and boys say they do leisure sports. For disabled students, it is necessary to further promote leisure-sports and to expand the range of leisure sports opportunities offered to them. In marketing communication, fitness, health, new forms of movement and friendly communities can be the buzzwords for increasing their participation in leisure-sports. It can help maintain and improve their quality of life and health.

*This publication was supported by EFOP-3.6.2-16-2017-00003 project. The project was accomplished with the support of the European Union and the co-financing by the European Social Fund.*

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**REVISION OF HUNGARIAN VERSIONS OF THE ALTERNATIVE USES AND CIRCLES  
CREATIVITY TESTS IN CASES OF ELEMENTARY AND SECONDARY  
SCHOOLS STUDENTS**

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Mező K., & Mező F. (2019): Revision of Hungarian versions of the Alternative Uses and Circles creativity tests in cases of elementary and secondary schools students. *Különleges Bánásmód*, 5. (1). 41–47. DOI 10.18458/KB.2019.1.41

**Abstract**

Although time plays a role as a latent or explicit factor in all creative processes, a direct examination of the role of time occurs less frequently in creativity research (Mező K., 2017; Mainemelis, 2002; Runco, 1999). This study focuses the revision of Hungarian versions of creativity tests because last standardization of these tests had been for more than 30 years. The applied tests were the Alternative Uses Test (as verbal creativity test), the Circles Test (as figural test) and the Raven nonverbal intelligence test (as a complementary means of study). The sample of this study was 1363 elementary and secondary school students, whose 35331 responses were recorded and analyzed. According to the results, the differences of scores of the old and new (revised) evaluation tables of all tests and age groups are significant ( $p \leq 0,05$ ). From viewpoint of the revised scores, there is significant difference with respect of fluency, originality and flexibility in both tests and all age groups. However, the differences of scores of other indicators (average originality, relative flexibility and revised average originality) are not significant.

**Keywords:** creativity, creativity tests, revision

**Discipline:** psychology

**Absztrakt**

A SZOKATLAN HASZNÁLAT ÉS A KÖRÖK KREATIVITÁS TESZTEK MAGYAR NYELVŰ VÁLTOZATAINAK FELÜLVIZSGÁLATA ÁLTALÁNOS ÉS KÖZÉPISKOLÁS DIÁKOK ESETÉBEN

Bár az idő, mint látens vagy explicit tényező szerepet játszik minden kreatív folyamatban, az idő szerepének közvetlen vizsgálata ritkábban fordul elő a kreativitáskutatásban (Mező K., 2017; Mainemelis, 2002; Runco, 1999). Jelen tanulmány a kreativitás tesztek magyar változatainak felülvizsgálatára fókuszál, mivel ezeknek a teszteknek az utolsó sztereotizálása több mint 30 éve volt. A vizsgálatban a Szokatlan Használat Teszt (mint verbális kreativitási teszt), a Körök teszt (mint figurális teszt) és a Raven nem verbális intelligencia teszt (mint kiegészítő vizsgálat) alkalmazására került sor. A kutatási mintát 1363 általános és középiskolás diák alkotta, akiknek 35331 választ rögzítettünk és elemeztük. Eredményeink szerint szignifikáns különbség ( $p \leq 0,05$ ) van a régi és az új (revideált) értékelési táblázatok pontszámai között, az összes teszt és az összes korcsoport esetében. A felülvizsgált pontszámok szempontjából szignifikáns különbség van a fluencia, az originalitás és a flexibilitás tekintetében mind a tesztek, mind az összes korcsoport esetében. Az egyéb mutatók (átlagos originalitás, relatív flexibilitás és a revideált átlagos originalitás) különbségei nem jelentősek.

**Keywords:** kreativitás, kreativitás tesztek, felülvizsgálat

**Diszciplína:** pszichológia

In the research of creativity – after the upswing in the 60s-80s – a revival may currently be observed again on Hungary (see research of Tóth and Király, 2006; Zétényi, 2010; Pléh, 2010; Barkóczi, 2012; Münnich, 2011; Mező F. 2013; Mező K. 2015; Péter-Szarka, Tímár & Balázs, 2015; Hanák, 2015). This revival may be explained by several reasons: on one hand, the actuality of applied research studying creativity – beyond the fact that this research raised so far unsolved theoretical questions and conflicting viewpoints – derives from such practical demands made explicitly or implicitly by institutions of public education subject to Law CXC (2011) of National Public Education, the National Talent Programme (see resolution of Parliament 126/2008), non-profit organizations (e.g. the network of Talent Point - which comprises more than 1000 organizations - of the Alliance of Organizations for Talent Promotion) and the Human Resources Managements of profit-oriented companies.

On the other hand, a higher appreciation of the role of creativity has an invigorating effect on creativity research – see all the social measures and documents which prioritize creativity, competitiveness (e.g. in the programme of lifelong learning) as well as the investment into knowledge and creativity (see: European Union Programme 2020). Each of the above indicated organizations and documents has a vested interest in the study and/or selection of creative individuals and/or the development of creativity in one way or another.

Practical solutions based on research have a significant role in meeting such demands and interests and the basis of such research (contrary to the multi-disciplinarity of the topic) is provided by empirical psychological studies. Any psychological approach to creativity may be taken as a basis, time appears as a latent or explicit factor in each of them although the role of time is less frequently studied directly in creativity research (Mainemelis, 2002). While engrossed in the topic, we were confronted with the surprising experience how very little research has been conducted into the temporality of creativity on Hungary.

The study of Runco (1999) reveals that it is similar in the case of international research: although there may be few more important factors than time in the production of works, there are no overviews or meta-analyses focusing on the role of time in creativity.

In this study we examine the temporal aspects of creativity focuses revision of Hungarian versions of creativity tests because last standardization of these tests had been for more than 20 years.

### Background factor of research

When devising our research plan, creativity tests corresponding to national standards – the Circles test among figural tests appearing in the Hungarian adaptation of TTCT and the Alternative Uses Task among the verbal tests were thought to be reconsidered. As a starting point, the arguments for using the tests were taken into account then we examined the necessity of their reconsideration.

Arguments for using creativity tests standardized in Hungary:

- by applying the tests individually or in groups, we may be able to receive information about children; so an application in schools may be easily carried out even in a busy curriculum;
- the standardization of the creativity tests introduced by Zétényi (1989) is based on a national sample as opposed to Anglo-Saxon data;
- test were proven reliable based on the reliability indicators of test-retest introduced by Zétényi (1989)
- the tests are willingly applied in the pedagogical-psychological practice (e.g. the János Arany Talent Programme in Hungary)

These arguments speak for the application of the tests but one might also need to realize that they are due to be reconsidered. The necessity of reconsideration of the national creativity tests:

- The descriptions of the tests and guidelines for evaluation were introduced in 1989 - more than 25 years ago (Zétényi, 1989). Their test adaptations introduced in this publication were even earlier published (the national adaptations of the Alternative Uses Task were completed by Barkóczi-Klein in 1968 - more than 45 years ago; The Circles Task by Torrence was published in 1974 more than 40 years ago). The reconsideration of the standards in the test booklet taking the years past into account is long overdue.
- Based on the description by Zétényi (1989) it may be concluded that the majority of participants taking part in standardization were over 18, i.e. from the adult population.
- Consequently, the current form of the evaluation table of the tests is not adapted to the age characteristics of primary and secondary school students.
- The effect of generational changes of the past 40 years was not followed by creativity tests. The spread of digital networks has brought about new behavioural patterns and those of

speech and expression, whose certain elements have already appeared in creativity studies as well but are difficult to interpret on the basis of the old (Zétényi, 1989) evaluation.

It may be argued that a continuous, up-to-date modification - dependent on cultural impacts - of the evaluation system of the tests may be difficult to complete but a supervision at least in every ten years - which has not occurred in the case of national tests - would be advisable. Based on all these, we conducted our research: revision of Hungarian versions of the Alternative Uses and Circles creativity tests in cases of elementary and secondary schools students.

### Method

The objective of the study is the revision of Alternative Uses Task and Circles Task. This study includes two sub-studies:

1) Revision of Alternative Uses Task and Circles Task with regard to responses within and between peer groups: With respect to responses, we asked questions in relating to the temporal aspects of fluency, originality and flexibility scores whose results confirmed the necessity of reconsideration the indicators of originality and the compilation of evaluation boards with them.

Our hypotheses are:

*Hypothesis 1.* With regard to fluency an development (an increase in the number of answers) will be observed in the case of both tests with age.

*Hypothesis 2.* Considering originality, a difference may be observed between the earlier originality of responses and the scores of reconsidered originality.

*Hypothesis 3.* Considering flexibility, responses will not have an equal distribution among conceptual categories.

2) Revision of Alternative Uses Task and Circles Task with regard to individuals within and between peer groups: A study with respect to individuals was necessary to obtain an answer whether an evaluation alongside different indicators of creativity is needed or a unified indicator may be sufficient. At the same time, we confirmed that the evaluation tables published by Zétényi (1989) are not adjusted to the characteristics of students and they needed to be applied according to age groups at least.

Our hypotheses are:

*Hypothesis 4.* Significantly strong ( $r_s$  = between 0,85 and 0,98) correlations were found between earlier and reconsidered indicators of Alternative Uses Task and Circles Task in all age groups.

*Hypothesis 5.* There is a significant difference between the creativity test results of age groups (junior, senior and secondary school students) on the basis of the old and reconsidered evaluation tables.

### Participants

The sample of this study was 1363 elementary and secondary school students, whose 35331 responses were recorded and analyzed (Table1).

Table1. Sample. (Source: Authors' editing)

Stimulus	Junior grade (n=140 person)		Senior grade (n=563 person)		Secondary school (n=660 person)		Total (n=1363 person)	
	Responses	Responses /person	Responses	Responses /person	Responses	Responses /person	Responses	Responses /person
Brick	290	2,07	2457	4,36	3001	4,55	5748	4,22
Key	186	1,33	1846	3,28	2295	3,48	4327	3,17
Pencil	197	1,41	2195	3,90	2712	4,11	5104	3,74
Total Verbal*	673	4,81	6498	11,54	8008	12,14	15179	11,13
Figural**	1465	10,46	8555	15,20	10132	15,35	20152	14,79
Total Verbal and Figural	2138	15,27	15053	26,74	18140	27,48	35331	25,92

\* Stimulus words ('brick', 'key' and 'pencil') of verbal creativity test

\*\* Circles stimulus of Figural creativity test

### Instruments

In all studies the Alternative Uses Task from the verbal creativity tasks (Barkóczi and Klein, 1968), the Circles Task from the figural tasks (Torrance, 1974) (whose standardized evaluation method was published: Zétényi, 1989) were applied. When selecting tests, we attempted to select ones which could be applied to both verbal and figural creativity and those which are generally applied nowadays in the course of talent studies. The Raven nonverbal intelligence test was applied as a complementary means of study.

#### *Alternative Uses Task*

An Alternative Uses Task is a paper- pencil creativity test (working time: 5 min.) based on three stimuli (e.g. a brick, a key, a pencil).

#### *Circles Task*

A Circles Task is a paper- pencil creativity test which may be conducted in groups - which includes 35 stimuli (circles) (Working time: there is no information in the booklet published by Zétényi; 5-8-10 min.)

The indicators of creativity examined by the tests:

- *Fluency* (F): measurement of range of ideas and easiness of expression. It may be measured by the number of assessable responses. A high score provides information on flexibility of thinking.
- *Originality* (O): it measures of singularity, originality, novelty and rarity of responses. It is the measurement of frequency of responses. According to Zétényi (10.1989) „This indicator may be the most sensitive one to indicate to what extent the individual's thinking is characterised by divergent productivity.”
- *Flexibility* (X): it indicates how many different categories the subject has given responses to. A high score indicates that the subject has grasped the response information from many sides. A low score indicates schematic thinking.

- *Average originality* ( $\bar{AO}=O/F$ ): this indicator may provide a reference as to how high the scores of originality may be irrespective of the number of responses. A high score indicates that the individual's responses are generally unusual and original (Mező and Mező, 2008).
- *Relative flexibility* ( $RX=X/F$ ): the quotient of the fluency and flexibility indicators per item or test. A high score indicates that the individual attempted to approach the task from many sides, communicated many options.

*A complementary means of study:* the Raven nonverbal intelligence test: The instrument is in a broader sense applied to study average intelligence, in a narrower sense to study cognitive ability. It is a paper- pencil creativity test- which may be conducted in groups. (Mező and Kurucz, 2014).

### Procedure

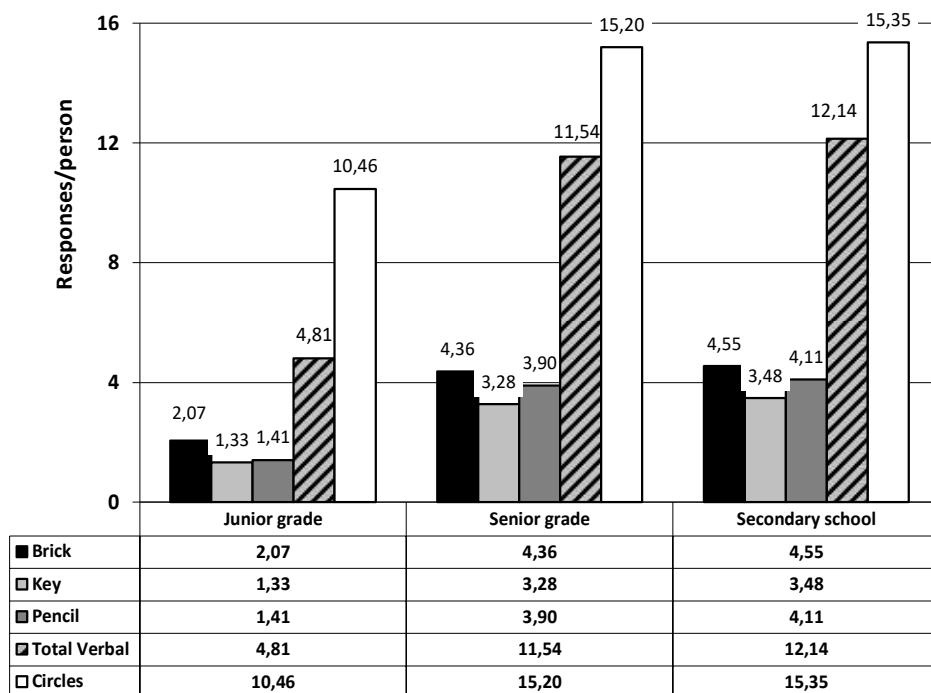
Participation was not obligatory in this study. The students and their parents were informed about the subject of the study before testing and they were able to make a decision about whether to participate or not. Consequently, our subjects had some kind of internal motivation to participate in this examination, so we did not need to use external motivators (e.g. money, good marks etc.) in order to involve participants.

We met our participants on two different occasions during this examination. In the first session, we tested creative thinking by applying the Alternative Uses Test and Circles Test. On the second occasion participants filled in the Raven SPM test. Every session lasted around 45 minutes, and was held at their school.

### Results and conclusions

The 1<sup>st</sup> hypothesis was confirmed only in part as a significant difference could only be detected between junior and senior age groups, in the case of secondary age group a stop in development can be detected (Figure 1.).

Figure 1.: changes of the responses/person values of the age groups. (Source: Authors' editing)



According to Mann-Whitney's U-test, there are significant ( $p < 0,05$ ) differences between junior and senior grade students' fluency scores ( $U_{\text{Brick}} = 14833$ ;  $Z_{\text{Brick}} = -9,174$ ;  $U_{\text{Key}} = 11728,5$ ;  $Z_{\text{Key}} = -7,499$ ;  $U_{\text{Pencil}} = 10914$ ;  $Z_{\text{Pencil}} = -7,909$ ;  $U_{\text{Circles}} = 20837$ ;  $Z_{\text{Circles}} = -8,573$ ), but there is not significant differences between fluency scores of senior grade students and secondary school students.

The 2<sup>nd</sup> hypothesis was confirmed, considering originality, a difference can be observed between

the earlier originality of responses and the scores of reconsidered originality (Table 2). These differences indicate culture-dependency of creativity tests in temporal sense: from the perspective of twenty-five years, the pattern of the frequency of answers in these tests varies considerably. Conclusion: there is a difference between the earlier and reconsidered scores of originality so evaluation tables with new, reconsidered scores of originality must be developed.

Table 2: paired comparison of earlier and revised values of originality. (Source: Authors' editing)

Stimulus	Subsample	Z
Brick	Junior grade	-1,165
	Senior grade	-3,007*
	Secondary school	-3,736*
	Total	-4,980*
Key	Junior grade	-6,331*
	Senior grade	-7,265*
	Secondary school	-3,753*
	Total	-9,237*
Pencil	Junior grade	-5,222*
	Senior grade	-13,902*
	Secondary school	-13,882*
	Total	-20,656*
Circles	Junior grade	-9,233*
	Senior grade	-13,882*
	Secondary school	-19,059*
	Total	-24,947*

\* $p \leq 0,05$  (Paired Wilcoxon's signed-rank test)

The 3<sup>rd</sup> hypothesis was confirmed, responses do not have an equal distribution among conceptual categories (Table 3). In the case of all stimuli, irrespectively of age groups, there are categories with higher and lower number of responses.

However, the arrangement of categories has changed when compared to the earlier evaluation table which makes a rearrangement of the order (weightedness) of the categories in evaluation tables necessary.

Table 3: distribution of responses among categories by stimulus and age groups. (Source: Authors' editing)

Stimulus	Distribution of responses among categories **	Junior grade	Senior grade	Secondary school	Total sample
Brick	Chi-square (df= 15):	263,062*	2774,750*	3675,482*	6629,578*
Key	Chi-square (df = 21):	0,535*** (df=13)	1917,025*	2580,018*	4380,965*
Pencil	Chi-square (df = 14):	302,606*	1561,923*	2044,184*	3625,124*
Circles	Chi-square (df = 29):	2088,008*	6811,800*	8151,088*	15538,791*

\*  $p \leq 0,05$

\*\* Possible number of categories in case of a given stimulus is  $df + 1$ . For example: in case of 'Brick' stimulus, there are  $15+1=16$  categories.

\*\*\*  $df = 13$  (because junior students did not give evaluable responses in cases of 8 categories)

Table 4. Paired comparison between age groups. (Source: Authors' editing)

Test	Age groups	Statistics	Fluency	Originality	Flexibility	Average originality	Relative felxibility	Revised originality	Revised average originality
Alternative Uses Task	Junior-Senior	Mann-Whitney U	12692,0	13193,0	12275,5	33775,0	21050,5	10547,5	19798,0
		Wilcoxon W	21077,0	21578,0	20660,5	184750,0	172025,5	18932,5	28183,0
		Z	-11,364*	-11,099*	-11,587*	-,818	-7,285*	-12,420*	-7,806*
	Junior-Secondary school	Mann-Whitney U	13384,5	14991,0	13231,5	34819,5	22645,0	11452,5	25109,0
		Wilcoxon W	21769,5	23376,0	21616,5	241865,5	229691,0	19837,5	33494,0
		Z	-12,165*	-11,457*	-12,247*	-2,881*	-8,230*	-12,988*	-7,086*
Senior-Secondary school	Mann-Whitney U	163882,5	171376,0	164636,0	149890,0	164880,0	167022,0	166056,5	
	Wilcoxon W	314857,5	322351,0	315611,0	356936,0	371926,0	317997,0	373102,5	
	Z	-2,133*	-,866	-2,009*	-4,497*	-1,972*	-1,601	-1,765	
Circles	Junior-Senior	Mann-Whitney U	20837,0	18909,0	22245,0	22738,5	27954,5	15829,5	9129,0
		Wilcoxon W	30707,0	28779,0	32115,0	32608,5	184474,5	25699,5	18999,0
		Z	-8,573*	-9,464*	-7,939*	-7,677*	-5,234*	-10,905*	-14,057*
	Junior-Secondary school	Mann-Whitney U	22711,5	20487,5	23631,5	27231,0	33525,5	16979,0	10392,0
		Wilcoxon W	32581,5	30357,5	33501,5	37101,0	246403,5	26849,0	20262,0
		Z	-9,347*	-10,241*	-9,001*	-7,501*	-4,937*	-11,670*	-14,371*
Senior-Secondary school	Mann-Whitney U	174765,5	178982,0	170608,5	176453,0	177637,5	175370,0	178918,5	
	Wilcoxon W	331285,5	335502,0	327128,5	389331,0	334157,5	331890,0	335438,5	
	Z	-1,232	-,536	-1,925	-,954	-,758	-1,131	-,547	

\*  $p \leq 0,05$

The 4<sup>th</sup> hypothesis was confirmed in part. Significant correlations were found between earlier fluency, originality and flexibility indicators of creativity in all age groups ( $r_s = 0,85-0,98$ ;  $p < 0,05$ ). However, in the case of other indicators (average originality, relative flexibility and reconsidered average originality) the correlations are weak or moderate negative. From the inverse proportionality, it may be inferred that with the increase in the number of responses thinking becomes more and more schematic.

However, the appearance of lower flexibility alongside high fluency may refer to elaboration in a given category. All these may question the justification of the use of one indicator of creativity.

The 5<sup>th</sup> hypothesis was confirmed: There is a significant ( $p \leq 0,05$ ) difference in all indicators between scores of junior, senior and secondary school students (Table 4). The difference is more significant between the junior and senior age group and less significant between the senior and secondary age group.

All these draws our attention to the fact that a unified scoring system of creativity tests - compiled mostly on the basis of the responses by adults - may not be necessarily suitable to evaluate the creativity of younger students that is why evaluation tables according to age groups must be made. The revision of Hungarian creativity tests is timely.

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## THE USE OF ENGLISH MEDIA IN EARLY CHILDHOOD

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Nemes M. (2019): The use of English media in early childhood. *Különleges Bánásmód*, 5. (1). 49–57. DOI 10.18458/KB.2019.1.49

### Abstract

The flow of information in the digital age is facilitated not only by traditional media such as television, radio and print but also by new media such as the internet, desktops and integrated computers, tablets and smartphones etc. The presence of IT tools is quite common these days among kindergarten aged children (3-6/7), and even toddlers can use them on a daily basis. Moreover, modern pedagogy is unthinkable without digital devices that have become integral parts of innovations such as game-based learning, media-based learning and edutainment. There are several language schools and bilingual creches where they accept very young children and babies. It is said that parents know their child best and children spend a lot of time with their parents. In consequence, this provides an excellent opportunity for parents to raise a bilingual child even if it is not his/her first language. In our paper we are combining these two, currently central issues: the use of English-language media and early childhood language-learning, as only limited research is available about it. We are going to present the results of empirical research carried out mainly in kindergartens in Debrecen, which focused on early second language learning and the children's use of media. Our research has two goals, so the questionnaires asked parents about the use of foreign-language media, its content and the time children spend consuming English content. In addition, we were interested in the parents' attitude to their children's English-language media use. We analyzed our data in the framework of early second language learning. Our research was carried out within the Early Childhood Research Group run by the Faculty of Education for Children and Special Educational Needs of the University of Debrecen. The research was carried out between October 2016 and January 2017.

**Keywords:** early childhood, media, English-language media

**Discipline:** pedagogy

### Absztrakt

#### AZ ANGOL NYELVŰ MÉDIA HASZNÁLATA KORA GYEREKKORBAN

A mai digitális világban veszélyes gyermeknek lenni. A gyerekek számára a technológia, a média tálcán kínálja az információkat, amit egy gyermek az életkori sajátosságai miatt nem minden esetben tud megfelelően értékelni. Az információ áramlását a médiaeszközök teszik lehetővé, mint a televízió, rádió, internet, tablet, telefon, számítógép, melyek használata rendkívül elterjedt napjainkban. Az internet-szolgáltatás mára elérhető a családok számára, és IKT eszközök segítségével a gyermek anyanyelvi szinten hallhatja az idegen nyelvet, amit a vizuális-auditív ingerek tesznek élménnyé. A 21. század elején a másik központi kérdés az idegen nyelv, elsősorban az angol nyelv ismerete. A szülők gyermekük érdekeit és majdani iskolai kötelezettségeit szem előtt tartva már a korai életkorokban beiratják őket idegen nyelvű tevékenységekre, köztük óvodai angol tevékenységekre, de a szülő otthon is megismertethet egy másik nyelvet gyermekével, valamint néhány hónapos kortól nyelviskolába is járhat a gyermekkel. Saját megfigyeléseink ösztönöztek arra, hogy érdemes a kora gyermekkor és az idegen nyelvű média kérdéseivel foglalkozni, hiszen a gyermekek életében is megjelennek az IKT-eszközök és használják is azokat. Dolgozatunkban azt mutatjuk be, hogy ezen eszközök alkalmazása már nem csak a felnőttek kiváltsága, hanem a legkisebbeké is, esetünkben a 3-7 éves gyermekeké. A médiának a nyelvi szocializációban is fontos szerepe van: az internet és IKT eszközök segíthetik az idegen nyelvek elsajátítását. Az informatika a jövő záloga, ami magával vonzza az

idegen nyelv tanulásának szükségességét és új lehetőségét is. Dolgozatunkban egy, debreceni óvodákban készült empirikus kutatás eredményeit (a vizsgálat ideje: 2016. ősztől 2017 tavaszig, N=60) is megjelenik, melynek tárgya a gyermekek korai idegen-nyelv elsajátítására és a gyermekek médiahasználatára irányult. A kérióíves vizsgálat a szülöket az idegen nyelvü médiumok használatáról, tartalmáról és idejéről kérdezte, valamint a szülöi attitüdot is vizsgálta. A vizsgálatunk nem reprezentatív, de megfelelő alapot ad számunkra, hogy megismerjük a kora gyermekkori angol nyelvü médiahasználat megjelenését napjainkban. A téma szélesebb körü reprezentatív módon történo vizsgálatá is idöszerüvé vált.

**Kulcsszavak:** gyermekkor, média, angol nyelvü média

**Discipline:** pedagógia

### Introduction

The flow of information in the digital age is facilitated not only by traditional media such as television, radio and print but also by new media such as the internet, desktops and integrated computers, tablets and smartphones etc. The presence of IT tools is quite common these days among kindergarten aged children (3-6/7), and even toddlers can use them on a daily basis. A lot of children get a tablet as a present from their parent or grandparents when they leave kindergarten at the age of 6/7. Moreover, modern pedagogy is unthinkable without digital devices that have become integral parts of innovations such as game-based learning, media-based learning and edutainment.

At the beginning of the 21st century, one other central question is the value of language skills, and in particular English language competence. English has become the language of cross-cultural communication as it is the primary language of business, media (e.g. films, music, online games) and tourism as well. Countless teenagers watch their favourite series and streams in English in their free time and pick up the language unconsciously. English is used in business conversations around the world, and not just between business partners one of whose first language is English. English is also used as a working language by many multinational companies. English is also the common ground of business meetings, emails and international communication, and it is possible to follow a wide range of different courses in English at many universities around the world. A lot of students study abroad with the help of scholarship or exchange programmes such as Erasmus+.

Also, foreign holidays, spending time in a new social environment and keeping in touch with friends require a certain level of language competence. English is at present used as the world's *lingua franca* making it the essential intermediary language of communication.

### Background

To achieve the goal that every European citizen should speak at least two foreign languages at B2 level, starting to learn languages at an early age is necessary. The European Union launched the Piccolingo program in 2009 in order to promote early language learning. The programme suggests that parents start early language learning with their children as early as possible because the susceptibility of the early years, and the flexible neuron network never come back. Due to the brain's plasticity, the younger a child starts learning a language, the more successful he/she will be in that endeavour. Age has an impact on the process of language learning and its success is in close interaction with other factors (Nikolov 2004). "The most important goal of early language learning is to create a positive attitude to language and to keep motivation as these are fundamental for further language learning. In childhood acquiring a second language is very similar to acquiring the first language. The child, with the help of his/her innate analytical skills acquires the foreign language in a natural way if she/he gets enough quality and quantity input. At that age there is no need for direct language teaching, the goal of the English activities is not to drill words and grammatical structures, however, the aim is global understanding" (Varga 2008 translated by Magdolna Nemes).

A lot of parents nowadays find it important that their children should learn a second language. In Hungary there have been English activities in many kindergartens since the change of political regime in 1989 with the support of the state. Gabriella Muszka contacted all 46 kindergartens in Debrecen in 2013 and it turned out that 25 kindergartens (54%) offered English activities for children. (Muszka 2013: 12). In 2017 in Nyíregyháza there were 34 state-run kindergartens of which 23 organized English activities for children (68%) (Nemes-Nagy 2018).

Besides the above mentioned state kindergartens, there has been a demand for early English in private institutions. Since we carried out our research in Debrecen, let us see what options can be found there for early English. There are several language schools and bilingual creches where they accept very young children and babies (such as Csodabogár Bilingual Creche). There have been Helen Doron Learning Centres in Hungary since 2002 offering courses to children aged three months old until the age of 18 (Teen English). Helen Doron courses for children have been available in Debrecen ever since the method arrived in Hungary. The basic principles of Helen Doron Early English courses for children are positive reinforcement, the lessons are funny, dynamic, playful and activate all the senses (Doron 2010). Another example of shadow education is The Kids Club which also deals with young English learners. The method, based on first language acquisition, was developed in 1988 by Linda Ellis, a language teacher in the United Kingdom. The Kids Club has courses for children from as early as 6 months old. Helen Doron Early English Learning Centres and The Kids Club also offer summer camps. Children living in Debrecen can also go for English lessons to Oxford Language School or Kids & Teens courses organized by Katedra Language School (<https://debrecen.katedra.hu>). Ezüstcsiga is also a private school situated in the heart of the city where children can learn English from the age of 3 (<https://ezustcsiga.hu>).

It is said that parents know their child best and children spend a lot of time with their parents. In consequence, this provides an excellent opportunity for parents to raise a bilingual child even if it is not his/her first language (Saunders 1988, King-Fegle 2006, Pearson 2008). When Hungarian parents decide to introduce their child to the mysteries of English, there are a lot of available sources. First, there are online blogs written by parents who communicate with their child(ren) in a language different from their first language (e.g. [www.ketnyelvugyerek.hu](http://www.ketnyelvugyerek.hu), [www.angolkalauz.hu](http://www.angolkalauz.hu)). The first language of these parents (who are usually mothers) is Hungarian but they have decided to speak English with their children. The parents who choose this kind of method are usually language teachers or else lived in an English-speaking country for quite a long time. Annamária Bán published a book on how to raise your child being bilingual (Bán 2013) and also started the very first website ([www.ketnyelvugyerek.hu](http://www.ketnyelvugyerek.hu)) and blog in this field in Hungary. The writers/bloggers give a great deal of useful advice and playful ideas based on their own experience (e.g. Fűrész-Mayernik 2015).

The British Council supports home English learning with free downloadable materials within the programme called Learn English Family and also organizes courses for parents interested in the method (Fehér 2014). Publishers also have special books, CDs and exercise books for parents to teach English at home. Oxford University Press published *Cookie and his friends*, containing not only a course book but also an activity book, a parent's guide, a multiROM and reward stickers (Reilly 2005, 2011). Cambridge University Press published *Hippo and Friends*, a three-level pre-school course for 3-5 year-olds. It uses a song and story-based approach to introduce language to children in a way that comes naturally at this age. Actions and activities further reinforce learning. The course is packed full of attractive illustrations. Extra components such as Flashcards, a Hippo puppet, Story Posters and a book of Photocopiable Extras and a Pupil's Book with activity stickers are also available and help the parents (Selby-McKnight 2006).

In our paper we are combining these two, currently central issues: the use of English-language media and early childhood language-learning, as only limited research is available about it. We are going to present the results of empirical research carried out mainly in kindergartens in Debrecen, which focused on early second language learning and the children's use of media. Our research has two goals, so the questionnaires asked parents about the use of foreign-language media, its content and the time children spend consuming English content. In addition, we were interested in the parents' attitude to their children's English-language media use. We analyzed our data in the framework of early second language learning. We have to underline that our research is not intended to be representative but is a pilot project. However, our data provide us a resource through which to investigate this new topic from a number of different perspectives.

We believe that the parents asked are very conscious concerning their children's language learning. We also presume that children consume not only Hungarian but also English language media contents.

### **Foreign language acquisition and the use of media among children aged 3-6**

#### **Circumstances of the research**

Our research was carried out within the Early Childhood Research Group run by the Faculty of Education for Children and Special Educational Needs of the University of Debrecen. The research

was carried out between October 2016 and January 2017. The kindergartens taking part in the research were:

Training Kindergarten of the University of Debrecen – Hajdúböszörmény, Közép utcai Óvoda [Kindergarten in Közép Street], Áchim András utcai Óvoda [Kindergarten in András Áchim Street], Debreceni Egyetem Óvoda [Kindergarten of the University of Debrecen], Szászorszép Óvoda [*Szászorszép* Kindergarten], Táncsics Mihály utcai Óvoda [Kindergarten in Mihály Táncsics Street] – Debrecen.

The printed questionnaires were distributed in kindergarten group where English activities are available at least once a week. In the groups 15-50 questionnaires were distributed, altogether one hundred. From the questionnaires distributed we got 59 back (59%). In the questionnaire we asked the parents 30 closed and open-ended questions. The questionnaires were filled in voluntarily, the answers are based on self-assessment. In the research project the key questions were asked at the beginning of the questionnaires and ethical approval was received from the parents and from the heads of the institutions as well.

The topics of the research:

- I. Personal data
- II. General data about the use of IT tools and internet
- III. Use of media in foreign languages and their contents
- IV. Parents' opinion about early language learning
- V. The expectations of the parents

### Analysis of the data

According to their place of residence, one family live in a village, 16 families live in a town and 42 families live in the city of Debrecen, the second largest settlement in Hungary. The village (Bocskai kert) and the town (Hajdúböszörmény) are in the agglomeration of Debrecen.

As for the language(s) spoken at home, most families use Hungarian in the family, in the very first socializing environment for a child (55). It may seem to be an unimportant question, but due to marriages/cohabiting, working or studying abroad, more than one language can be used in a family. Being bilingual is a common phenomenon in many parts of the world, but not in Hungary, where most of the inhabitants are monolingual. Generally, bilingual children have parents of two different first languages.

In our sample there are two families where English and Hungarian are used for communication.

Ukrainian (1) and Polish (1) are also spoken in the families involved. Also, there are non-native parents who raise their children in the target language that is not their first language (Heller 2010). Those parents who don't use the above-mentioned methods can employ a native au-pair or baby-sitter or decide to send their child(ren) at a very early age to a language school.

If we take a look at the number of children in a household, we can see there is one child in a third of the families involved (32). In most families there are two children (26), which is the typical Hungarian family pattern. In 13 families there are 3 children and there are 4 children only in one family (Figure 1.).

We also asked the age of children in the groups. As we can see most children are 5 years old (23 children) or 6 years old (24 children). A third of the children (21) are under the age of five. This has something to do with the fact that we asked parents whose children take part in English activities in the kindergarten, and in several institutions this option is not available for very young children (3-4 year olds)

We looked at the age of the parents according to their gender. Based on our data, there are four mothers between 25-30, 15 mothers belong to the age group between 31-35, though most of the mothers involved in our research were between 36-40 (26 mothers) and 14 mothers were between the ages of 41-45. As for the fathers, we can say that there aren't any respondents under the age of 30. 12 fathers are between 31 and 35 years, 23 between 36-40, 22 fathers between 41-45. and 2 fathers who are more than 46 years old. The reason behind the ages of the parents may have different interpretations. It is possible that their first child is not in kindergarten. Another reason can be that nowadays parents start families later

Most mothers involved in our research graduated from a college and/or university (43), 10 of them have a general certificate of education (GCSE), five of them graduated from a vocational school and one of them has primary school education. As for the fathers, 30 of them graduated from a college and/or university.

Three of them hold a technical education, 16 have a general certificate of education (GCSE) and 10 of them are skilled workers. From our data we can conclude that the majority of our respondents are adults holding a degree, living in a city and they belonging to the (upper) middle class.

Gathering information about the level of language skills spoken by the parents was also important for us. Forty-four of the mothers involved in the research speak at least one foreign language, while 14

of them do not speak any language apart from Hungarian, and one respondent did not answer the question. As far as the fathers are concerned, 37 of them speak a foreign language, 20 of them do not speak any foreign language, and 2 fathers did not answer the question. It seems to us that in half of the families involved, both parents speak a foreign language. However, in a fifth of the families, neither of them does. Most parents (34 mothers, 41 fathers) speak English, while 11 parents speak German. Our results are not surprising, as in Hungary in order to get a degree, students have to pass a language exam at least at B2 level. (Figure 2).

In case they do not have an intermediate level language exam, they can not get their degree.

Unlike our sample, average Hungarian adults in the age group in question do not speak foreign languages. According to Eurostat data, Hungary has been for many years at the bottom on the list of languages spoken by the citizens in EU countries. In Hungary only 37% of the population aged 25-64 can speak at least one language in addition to Hungarian. The most widely spoken language among Hungarians is English, though based on their self-evaluation, only a quarter of them can speak English well and half of them speak English at basic level (eduline).

Nowadays it is indispensable to have internet and/or wifi connection in everyday life. According to a survey in 2014, 97% of Hungarian households have a TV set, so 9 million citizens over the age of 4 live in a household with at least one TV set. Moreover, approximately 80% of Hungarian households have internet connection in their homes (Kósa 2015) though we believe this numbers has risen since then. As for our respondents, there was internet connection in 26 families, and

wifi in 19 families. 15 parents replied that they have access to both Internet and wifi.

The use of IT tools (tv, internet) is an integral part of everyday life at the beginning of the 21st century and they are taking up a larger space in children's lives as well. Comparing Hungarian data to international ones, we can see outstanding levels of media consumption in Hungary. Children under the age of 17 spend more than 3.5 hours watching television a day but the use of other media (internet, magazines, radio etc.) is also significant (Kósa 2015). We wanted to know how many minutes/hours children in the families involved in our survey spend using IT tools. The parents could chose from the intervals given. 27 respondents (45%) answered that their child uses IT tools for 1-2 hours a day, while 3 respondents answered 3-4 hours a day. None of the respondents said that their child spends more than 5 hours a day using IT tools. 13 parents (22%) replied that their child uses IT tools once or twice a week. In 15 of the families consulted, kindergarten-aged children use IT tools three or four times weekly. Only one parent answered that his/her child uses IT tools only a few times a month. From the replies we can see that almost half of the children use IT tools for 1-2

We also asked how old the child was we he/she got to know IT tools. Most children were 3-4 years old when they first used a smartphone (16 children) a tablet (12 children) or a laptop (17 children). There were also children who started using IT tools a bit later than that, at the age of -5-6 (smartphone 17, tablet 10, laptop 13 children). However, there are also children who first used IT tools as the age of 1-2 (smartphone 4, tablet 5, laptop 4 children).

Figure 1.: Number of children in a household. (Source: Authors' own editing)

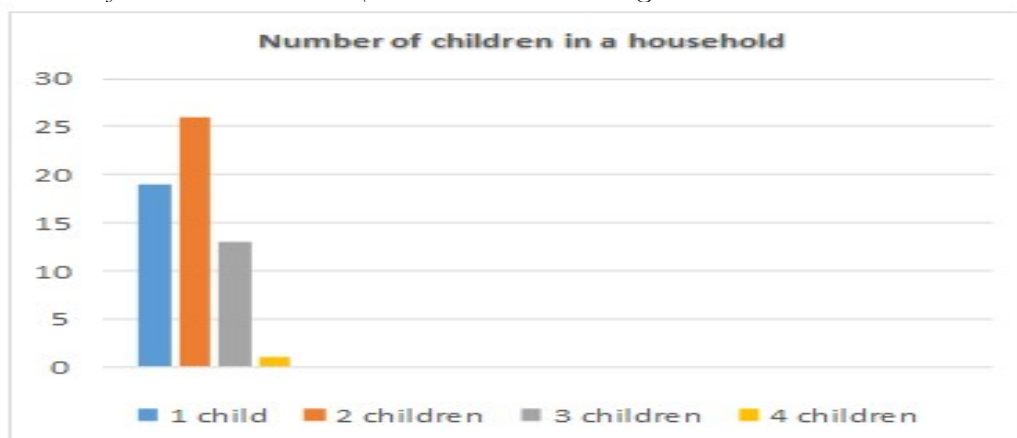
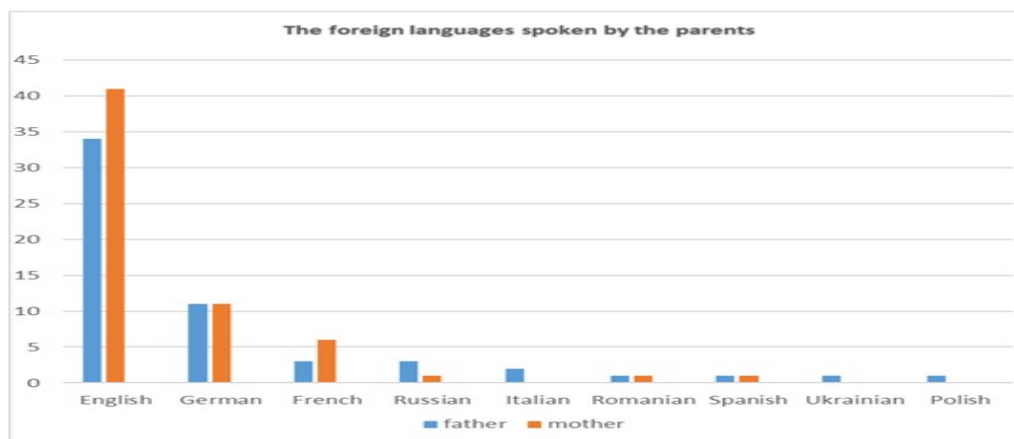


Figure 2.: The foreign languages spoken by the parents (Source: Authors' own editing)



These numbers prove that IT tools are integral part of everyday life from an early age nowadays.

In the following we also wanted to know if children use IT tools to consume foreign language content. 41 respondents (70%) answered that his/her child watches programmes in a foreign language while 17 respondents (28%) answered his/her child does not watch any programmes in a foreign language, and one parent did not answer this question.

We were also interested to know what IT tools children use to get in touch with foreign language contents (TV, smart phone, tablet, desktop computer, laptop, book, other). The answers show a colourful picture: 37 respondents said their child watches programmes in a foreign language on TV, 28 respondents answered that their child uses a desktop computer and/or a laptop for this reason. 16 respondents mentioned tablets and 11 picked smart phones. Ten children get in touch with foreign language content while reading a book. As other options, two parents mentioned DVDs and musical toys. Only one parent replied that his/her child does not get in touch with foreign language contents at home, while 8 parents did not reply to this question. To sum up what has been said before, we can conclude that children of the respondents get in touch with IT tools, mainly the TV set in the household and/or computer, and about two-thirds of them watch foreign language media content. According to our respondents, most of their children consume English language media on an IT tool for not more than one hour a day (Figure 3). “[Our child] can watch only useful developmental programmes (English, logics) we choose and for a limited period of time” (Questionnaire 11). It has also become clear to us from the answers that the most popular TV channels are *Minimax*, but *Cartoon Network*, *Disney Junior*, *Nickelodeon*, and *Baby TV* are also popular. A

significant share of children watch English language contents on YouTube (41 respondents, 69%). Children enjoy watching English and American cartoons or tales e.g. *Dora the Explorer*, *Numberjacks*, *Ben and Holly's Little Kingdom*, *Frozen*, *Barbie*, *My Little Pony*, *Peppa Pig*, *Caillon*, *Fireman Sam*, *Octonauts*, *City Heroes*, *Tayo*, *Heroes of the City*, *Paw Patrol* as well as nature programmes. The parents have also listed programmes for children, songs and rhymes such as *ABC songs*, *The wheels on the bus*, *Super Simple Songs*.

Watching English programmes and contents offer an excellent opportunity for children to listen to words, sentences and phrases used in every day life in their contexts. The parents involved find consuming English media most useful from the perspective of vocabulary and pronunciation. Children watch English contents or with their parents (32), or on their own (27). *Honestly, this is when I do the washing up* (Questionnaire 20) (Figure 4).

Comparing books read out to children in foreign languages and TV programmes watched in foreign languages we can see the most striking results. According to the answers, only 11 children (18 %) get in touch with books in English, when their parents read them about tales or rhymes sometimes. However, most children involved (70%) watch English TV programmes, while only a third of them (17 children) do not. We also have to add that these children might use other technology tools (e.g. ready-made applications on a smartphone) to access English language contents (Figure 5).

The parents were also asked to justify their answers. Our respondents find playful language learning the most important. “*Learning is easier in a well-know environment in a playful way.*” – answered a mother in her thirties with an MA/MSc qualification (Questionnaire 30).

Figure 3.: *Watching TV programmes/shows in foreign languages.* (Source: Authors' own editing)

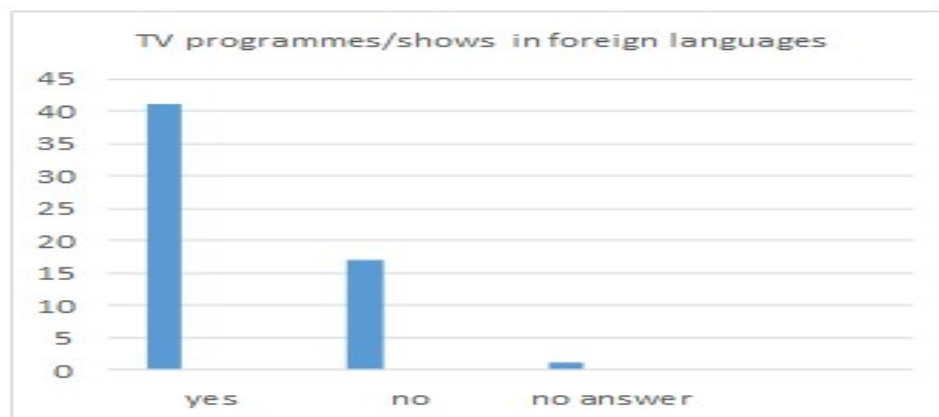


Figure 4.: *Parents and children watching programmes in foreign languages together.* (Source: Authors' own editing)

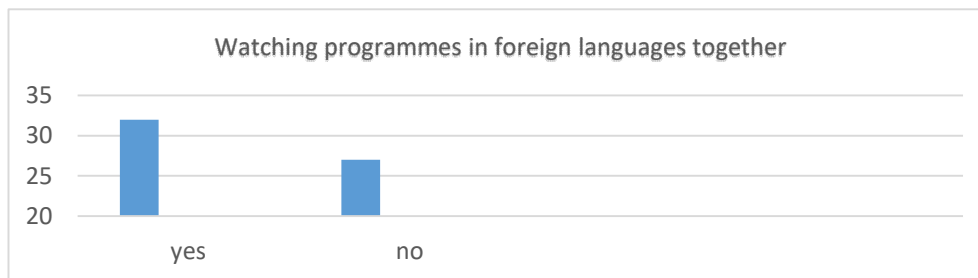


Figure 5.: *Books read in foreign languages.* (Source: Authors' own editing)



Fifteen parents believe that the child can pick up the right pronunciation and can learn some basic words and phrases in the right environment. In the answers of the parents we can see the signs of thinking about the longer-term future. They also added that if a child starts learning a language in kindergarten then he/she has only to revise it at school (12 respondents).

The children between the age 3 and 6/7 have time to get to know another language, furthermore it is easier for the parents, as they do not have to take the child to a language school in the afternoon (2 respondents). Foreign language competence also develops the child's personality and boosts his/her self-esteem (1) „We want our child to meet the target

*language environment in a playful way as early as possible; he will express himself without inhibitions”* (Questionnaire 32). Two responding parents underline that speaking language(s) has become fundamental in recent decades.

Later on we were interested in parents' attitude to learning languages at an early age. The parents asked find it important that their children could speak a foreign language (98%). Most parents used phrases such as *it is necessary, it's easier getting along in life* which mean they recognise the social and economical expectations. Moreover, they would like their children to get along easier in life hoping that English, or foreign language competence, will help

them to achieve success and contribute to social mobility. According to one parent: *[The child] can be more confident abroad, has a better chance to get a good position at work, also it strengthens the self-esteem and develops the personality* (Questionnaire 53). The answers also refer to the future of the children: foreign language competence makes school studies easier and leads to a better job in the future.

Last but not least we wanted to know what are the parents' opinions about learning English in kindergarten. Most of our respondents (56) find it good and useful that their children can take part in English activities even in kindergarten. Two of the respondents do not approve of that and one parent did not reply to this question.

Finally, we asked the parents what are their expectations from language learning in kindergarten. One of the most common answers was *language learning in a playful environment* (24). These parents feel playfulness makes learning new information easier for the children, adding that they will be happily involved in the learning process. *"The children learn the basic vocabulary, expressions, sentences in a playful environment and it motivates them to learn languages"* (Questionnaire 11). The parents also mentioned *love of learning languages and acquiring basic vocabulary* too. In the framework of English in kindergarten it is enough to teach the basic vocabulary to children which *prepares them for English lessons at school* where they will be in a better position compared to those children who did not take part in English activities before. A few parents expect English activities to *boost the child's self-confidence* (3). *I expect the child to be more brave, be brave enough to speak English, to sing and say rhymes in English* (Questionnaire 5). One parent said he/she has no expectations in connection with English in kindergarten.

In the final part of our project we asked parents' views about learning languages with the help of IT tools. Based on the answers, 37 respondents approve that language learning should be supported by IT tools in kindergarten. 16 respondents disapprove of that, three respondents could not decide and three respondents did not reply to this question.

Those parents who approve of learning languages with the help of IT tools in kindergarten justified their answers as follows: it helps with learning the language, because the child learns in a playful way (21); it is a basic requirement nowadays (3), children can access knowledge and information quickly (3); IT tools are reasonably priced (1). There was a respondent who emphasized that use of IT tools in kindergartens should only be as supplements.

Those parents who disapprove of learning languages with the help of IT tools in kindergarten

also justified their answers: in a playful environment personal touch is better for language learning (11); the traditional method is good (8). Two respondents stated that learning a language in kindergarten does not require the use of IT tools.

### Summary

Our own observations encouraged us to carry out a pilot research project in the fields of early childhood and English media as IT tools have appeared in children's lives and they use them. In our paper we have explained that the use of IT tools is not the adults' privilege any more, indeed, young children including children between 3 to 6/7 also use them frequently. From the answers we got from the parents asked, it turned out that internet access is available for most families, so children have access to Hungarian and English contents too, so media is a free language stage. Media play an important role in language socialization: internet and IT tools can support learning languages. It has also turned out from the answers that most children (62%) regularly watch programmes, cartoons or tales in English with the help of modern electronic devices (e.g. laptop, tablet, smart phone).

The lesson we have learned from our research is that parents with higher qualifications get ready on purpose to develop their children's language competence. The parents enrol their child at an early age to English activities including English activities in kindergarten, keeping in mind the child's future responsibilities and interests at school. It has also turned out from the answers that most parents support the use of IT tools in early language teaching. However, there is a quite high percentage of parents who disapprove of that.

Information Technology is the key to the future that brings along with it the necessity and also new opportunities for language learning. It is indispensable to draw children's attention to the rules for using IT tools, and keeping those rules in the kindergarten as well as at home within the family. The use of IT tools in kindergarten depends on their availability in the institution and the preparedness of the kindergarten teacher, who has to find the balance between traditional methods and the use of modern multimedia devices.

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**COLOURED STICK: TEACHING WITH A COMPREHENSIVE GAME FOR IMPROVING CHILDREN'S SOCIAL-EMOTIONAL ABILITY IN KINDERGARTEN**

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Tatminingsih, S. (2019): Coloured Stick: Teaching with a comprehensive game for improving children's social-emotional ability in kindergarden. Különleges Bánásmód, 5. (1). 59–65. DOI 10.18458/KB.2019.1.59

**Absztrakt**

Emotional ability must be properly managed in order to survive and adapt to social life so that social and emotional abilities can be trained from an early age. As a part of early childhood, kindergarden is one of the most effective places to help children develop social and emotional abilities effectively through play activities. Thus, kindergarden teachers need to find alternative activities and play equipment that can stimulate socio-emotional abilities. One way is by means of the game "Coloured Stick" made of pieces of wood that is developed by combining three types of games, namely constructive games, educational games and traditional games. This teaching tool can be applied in an integrated manner in kindergarden learning activities, which include the opening, core, and cover with a strategy that varies according to the indicators of social-emotional development. The learning process is the use of the game "Coloured Stick" which is systematically designed and integrated so as to facilitate its application. The application of this tool was tested in small groups of 8 students over eight meetings in July and August 2015, and a large group of 14 students over 12 meetings in August and September 2015 in Fithria Islamic Kindergarden, South Jakarta. Subjects in the test groups were teachers and the kindergarden students. The results of both the trial groups were seen from the difference between initial and final assessment. The small trial group results increased by 0.1 points (4.88%) up to 0.29 points (9.76%) whereas the large trial group results increased by 0.05 points (1.63%) to 0.93 points (30.83%). Descriptive this increase occurred in the child are varied and each child's progress in socio-emotional capabilities in the grain or indicators of social-emotional abilities are different. This is very possible because each child has differing ability to absorb the learning content. The results show that the colored sticks game tool can help children develop social skills because the learning process can be carried out in groups. In addition to boosting the child's emotional development, it can also help children develop confidence and respect for themselves, not become easily frustrated because the concepts are according to the age and development of the children, and to exercise patience because they have to wait for their turn to play.

**Keywords:** Coloured Stick, Comprehensive Game, Children's Social-Emotional Ability, Kindergarden,

**Diszciplin:** pedagogy

**Absztrakt**

ÓVODÁS KORÚ GYERMEKEK SZOCIO-EMOCIONÁLIS KÉPESSÉGEINEK ÁTFOGÓ FEJLESZTÉSE A COLOURED STICK/ SZÍNES RUDAK NEVŰ JÁTÉK SEGÍTSÉGÉVEL

Az érzelmi képességet megfeloően kell irányítani a túlélés és a társas élethez való alkalmazkodás érdekében, így ezen készségek fejlesztése kora gyermekkortól szükséges. Kora gyerekkorban az óvoda a játéktevékenységeken keresztül az egyik legmegfelelőbb hely a gyermek társas és érzelmi képességeinek fejlesztésére. Éppen ezért az óvodapedagógusoknak meg kell találniuk azokat a tevékenységeket és játékeszközöket, melyek a gyermekek társas és érzelmi képességeire jótékonyan hatnak. Az egyik lehetőség erre a Coloured Stick/Színes rudak nevű fából készült játék, amely három játékot ötvöz: konstruktív, oktatási célú és hagyományos játék. Az eszköz alkalmazható az óvodai tanulási tevékenységek során. A játék használata maga a tanulási folyamat. A játék alkalmazását nyolcfős gyerekcsoportban vizsgáltuk nyolc

megfigyelés során 2015 júliusában és augusztusában, majd egy nagyobb, 14 főből álló csoportban 12 alkalommal 2015 augusztusában és szeptemberében. A vizsgálatot a Fithria Islamic Kindergarten-ben [Fithria Iszlám Óvoda], Jakarta déli részén végeztük. Az eredmények a kezdeti állapot és a záró értékelés között megmutatkoznak. A kisebb, próbacsoport eredményei 0.1 -ről (4.88%) 0.29-ra nőttek (9.76%), míg a nagyobb csoportban 0.05 -ről (1.63%) 0.93 -ra (30.83%) emelkedtek a mutatók. A növekedés a gyerekek körében változó, mert minden gyermek érzelmi és társas képességeinek fejlődése a társas-érzelmi képességek indikátorainak tükrében más és más. Ez azért lehetséges, mert minden gyermeknek eltérőek a képességei a tanulási tartalom befogadására. Az eredmények azt mutatják, hogy a színes rudak játék segíthet a gyermekek társas készségeinek fejlesztésében, mert a tanulási folyamat csoportokban zajlik. Ezen kívül a játék elősegíti a gyermek érzelmi fejlődését, ami segít a gyermeknek magabiztosabbá válni és tiszteletet kivívni társai körében. A gyermek nem válik könnyen frusztrálttá a játék felépítésének következtében, hiszen a játék igazodik a gyermekek életkorához és feljettégi szintjéhez. A gyermekek a türelmüket is fejleszthetik, mert meg kell várniuk, mikor következnek a játékokban.

**Kulcsszavak:** Coloured Stick /Színes rudacskák, óvoda, gyermekek szocio-emocionális képessége, fejlesztőjáték

**Diszciplína:** pedagógia

## INTRODUCTION

Emotional ability is the ability of person and must be properly managed in order to survive and adapt to social life. Therefore, children should receive emotional training from an early age. As an early childhood institution, kindergarten is the most effective place to help children to develop their social and emotional abilities effectively through play activities.

Social-emotional ability can be translated into the ability to manage emotions and social skills. Both abilities influence each other. Emotions are feelings inside a human which can be happy or unhappy, good or bad. According to the Indonesian dictionary, emotions are the expression of feelings that grow and recede in a short time; a condition of physiological and psychological reactions, such as joy, sadness, compassion, love or the meaning of courage is subjective. Goleman (1995) states that emotion refers to a feeling or thoughts trademark or a state of biological and psychological as well as a series of tendencies to act. According to Syamsu Josph (2014), socialization by Sue Ann Robinson Ambron is a learning process that guides children to develop social personality so they will become responsible (Syamsu Joseph, 2014).

Recently this development activity in kindergarten already done varies and integrated, the meaning is the activities in kindergarten are interrelated and interconnected to developing the potential of the children. However, based on the results of preliminary research conducted in October 2014 (Sri Tatminingsih, 2015) to the development activities in Fithria Islamic Kindergarten, South Jakarta, it shows that the development activities of social-

emotional ability are not directly done as activities aimed at developing these capabilities, but only as a hidden part of the execution of daily activities. It was seen that the indicator of the development activity is not explicitly listed in the daily learning strategy or design of Daily Activity Plan and the strategy of weekly activities or Weekly Activity Plan. For example, in free play activities, socio-emotional abilities develop cooperation, patience to wait their turn and learning how to care less that. Ability is not listed as a primary goal in Daily Activity Plan and Weekly Activity Plan, although in practice this capability is important to be developed in kindergarten. Therefore, the kindergarten teachers need to find alternative activities and play equipment that can stimulate children's social-emotional abilities.

Although social skills and emotional abilities are separate, both are interrelated and influence each other. Laura E Berk (2006,396.) claimed that children are the emotional signals such as smiling, crying and being attentive, and are believed to powerfully influence others. In other words, the children's emotional reactions are influenced by the behavior of others (Berk Laura E, 2006, 396)

Good social-emotional ability is an ability that children need to have from a young age because this behavior will influence and determine the ability of children in the future. Children with fragile social behavior will hinder the development of other children as success in life is not only influenced by only cognitive ability, but also by how well individuals can interact with others. The success of an individual is also determined by the success of the individual's interaction with others.

Socio-emotional capabilities that have been developed since the child is still small will positively contribute to the process of development or child interaction with others in the future. (Ernawulan Saodih, 2015, 31-31.)

Domain social-emotional abilities were systematically designed by Yusuf (2014, 113-114) as shown below (Table 1.).

This article is part of the dissertation composed by Sri Tatminingsih, with the title "Development of Comprehensive Games Based Learning Model to Improve Cognitive Ability and Social-emotional (Research and development in Kindergarten in South Jakarta, 2015)".

Based on these concepts, it can be said that the synthesis of socio-emotional abilities is the ability to become social beings the behavior demonstrated in social demands in accordance with the norms, values or social expectations of the surrounding community and the ability to respond or react, and manage your thoughts and feelings through biological changes that can be observed directly to an event that faced both inside and outside of himself.

Comprehensive Game or Plaything comprehensive (Sri Tatminingsih, 2015) is a tool created by

combining three types of games, namely constructive games, educational games and traditional games.

Constructive play is a form of the game where children use the material to create something that is not only for beneficial purposes, but also for the excitement gained from making it. According to the theory of cognitive play, constructive play includes functional play. Constructive play involves the manipulation of physical objects to build or establish something. Constructive play activities are activities that can be done with friends the same age. This comprehensive tool is constructive game, meaning that this tool can be used in accordance with the wishes and creativity of children. This game can be fun too, as children can play with joy but they also learn about various cognitive concepts. With this tool, children also practice manipulating objects according to their imagination. They touch, hold and then make various designs or construct various forms as directed by the teacher or simply out of curiosity. This game is also used by children together with classmates or peers so that the tool is included in constructive play.

*Table 1. Social-emotional Domain Ability in Children (Yusuf, 2014, 113-114)*

<b>Aspec</b>	<b>Behavior Characteristic</b>
1. Self-Awareness	a. Get to know and feel the emotion itself b. Understand the causes of the feeling c. Know the feeling and the effect of the actions
2. Managing emotions	a. Tolerate frustration and anger and to manage them better b. Can express anger appropriately without a fight c. Can control aggressive behavior of self destructive and others d. Have positive feelings about themselves, school and family e. Can deal with stress f. Can reduce feelings of loneliness and anxiety in the association
3. Utilize emotions productively	a. Have a sense of responsibility b. Can focus on the task c. Can control him/herself and not be impulsive
4. Empathy	a. Can accept others' viewpoints b. Have empathy or sensitivity to the feelings of others c. Can listen to others
5. Establish relationship	a. Can recognize and analyze the relationship with others b. Can resolve conflicts with others c. Can communicate with others d. Have a friendly attitude or finds it easy to get along with friends of the same age e. Have an attitude of tolerance and concern for others f. Pay attention to social interests (love to help others) and can behave harmoniously with the group g. Is happy sharing and working together h. Is democratic in dealing with others

**Educational games** are games which are designed specifically for educational purposes. Educational games have some specific characteristics, namely:

- a. These games can be used in various ways, the point is that these games can be used for various purposes, benefits and can be a variety of shapes (multi-purpose).
- b. Intended primarily for preschool children that serve to develop various aspects of development as well as the child's motor skills.
- c. Concerned about security both of form and material usage.
- d. Can make children actively involved.
- e. Are constructive and instructive.

Plaything comprehensively developed and used in the learning process based games comprehensively meets the characteristics of educational games, namely: the device is especially designed to support the learning process for children kindergarten group B with the concepts and objectives are deliberately made to improve the ability of the child in the cognitive and social-emotional. The process and the results of this tool are promoting security and safety for children at play. This security ranging from the material, how to make it to the final outcome of these games had the tests twice so that the tool is completely safe, convenient and can be used to improve children ability. The tool is also designed so that children can play actively, independently and creatively.

**Traditional games** are games that have been handed down from generation to generation. Often who created the game and when the game was created are unknown. Traditional games incorporate cultural values, such as training independent attitude, decision making, responsibility, honesty, control of attitude, helping each other, cooperating with others, defending the interests of the group (solidarity), democracy, and adherence to the rules among other values. An example of a traditional game is dominoes.

Plaything comprehensively resembles a game of dominoes shape and made of wood 15 cm long, 7.5 cm wide and 0.5 cm thick. Each face consists of two colors and the back brown wood. Each pair is numbered 20 color pieces. The concepts developed in the Tool Color Stick game, include: shape, color, size, classification and order, incorporating the concept of numbers, letters and symbols of mathematics. This tool contains elements of primary colors (red, yellow, blue, black and white), it

contains elements numbers (numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10), containing the alphabet letters from A to z (a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, r, s, t, u, w, y), containing geometric shapes such as circles, triangles, rectangles, squares, cylinders, cubes and parallelograms and contains elements of mathematical operations, such as +, -, :, and x.

Installation of letters and numbers and mathematical symbols are arranged so that when playing can be paired with more flexibility. This tool is safe for both of form and use of the material and can make children actively involved and constructive.

This tool is safe and appropriate to the size of the child's hand and in accordance with the child's developmental level and age.

## RELEVANT RESEARCH

- Based on research by Putri Admi Perdani (2014: 129-136), the results of the social skills of kindergarten class B increased by 42.13% from the average pre-intervention classes and 54.13% in post-test results. The study was conducted by the method of action research in Nurul'Ain kindergarten in Gue Gajah village, Aceh Besar from March to June, 2013.
- Research by Rosalina Dina (2008) linked constructive play with the creativity of children. The results found that there is a significant relationship between constructive play and the creativity of children.
- Ratna Istiarini (2015: 145-154) discovered that the ability to speak kindergarten beam B through play activities in groups showed an increase of scores from 73.75 to 90.25 into 81.25 to 96 overall score. The results obtained using action research methods class at the Bunga Hati Keluarga kindergarten, Tangerang District of academic year 2012/2013 (Ratna Istiarini, 2015: 145-154)
- The research results of Devinta Fistiani Norma (2013) found that there is no significant correlation between constructive play and increased creativity of children. 40% of subjects scored highly on creativity, but this percentage decreased to 33.3% after follow-up activities. This indicates that the level of creativity of the experimental group did not experience any significant increase.
- Su Tan Cheng and Li-Chun Chen (2014: 136) state that: 1) Picture books teaching enables students to perceive emotion, understand themselves more, and have good emotional awareness and expression, 2) Picture books

teaching lets students with poor emotional control be willing to change, and provides a behavior example model to help students manage and control emotions, and 3) Picture books teaching provides students with a positive thinking attitude, interpersonal skills, and good emotion capacity utilization. The research subjects were 20 elementary school students of three grades in Kaohsiung City.

- Andrianus Krobo (2014: 25-34) put forward the idea that intrapersonal intelligence through activities plays a role early education. The research took place at Kartini SP 1 Kindergarten in Bumi Raya Village district of Nabire, Papua. The results showed that an increase in interpersonal intelligence related to internal aspects of the self, such as the feeling of life, the range of emotions, the ability to distinguish emotions and use them to guide and understand one's own behavior. These increases were analyzed by percentage, equal to 95.59%. (Krobo, Andrianus, 2014: 25-34)

### Method

The formative trial implementation of these tools was done in small groups during eight meetings in July and August 2015, and a large group of over 12 meetings in August and September 2015 in Fithria Islamic Kindergarten at Pondok Pinang III Street, Kebayoran Lama District, South Jakarta. Subjects in the test group are teachers and eight small children in group B and the subject is a large group of teachers with a class B group numbering 14 children. Analysis of data on the use of a game using a qualitative descriptive field notes and effectiveness percentage and analyzed by t-test to the results of the initial assessment and final assessment on the social-emotional abilities of children using social-emotional assessment instrument that has been developed previous researchers.

## RESULT AND DISCUSSION

### *Small Groups Trial*

The trial was conducted on 8 children from Group B 2 with Tri Rahayu as the teacher. All eight children were randomly selected from the 12 students who were in the group B2. All 12 children in class B2 were involved in the same learning activities, including the activity Stick Color, but only 8 of the children were used for this research. The research subjects were chosen at random.

The small group trials were conducted from August 3, 2015 until August 14, 2015. The learning activities carried out following the rotation centers.

This was done because Fithria Islamic Kindergarten apply learning centers with the system. Sentra owned by TK there are four centers, namely: preparation centers, beams centers, natural materials centers and IMTAQ centers (faith and religion). Each center is run by one teacher in charge. Meanwhile every teacher is responsible or become class guardian in one class only. Each class will be learning at the center on a daily basis and the distribution schedule classes to enter the center compiled every month by paying attention to the calendar and national holidays.

The effectiveness of a comprehensive learning game based on the achievement of emotional social abilities of children in group B refers to the achievement of competencies or indicators of emotional social abilities of children that have been formulated in the previous stage.

The result of the calculation of the initial assessment and the final score of the test results illustrate that the application of a small group-based learning model of comprehensive games can improve children's social-emotional skills in kindergarten group B. The improvement seen from the difference between initial and final assessment increased by 0.1 points or 4.88% up to 0.29 points or by 9.76%.

The research discovered that there was one child named Je whose average score did not increase. This happened because when observed, Je was very quiet and was still attended by his mother in the classroom. It was also Je's first time in school so he hadn't had chance to make friends and adapt to the school environment. Besides that, Je rarely came into the classroom when the Colored Stick activity was being conducted, even though he was encouraged to participate. However, in general every child seemed to experience an increase in social-emotional abilities after this comprehensive game-based learning activity.

The t-test results show a similar increase in the social-emotional abilities of the children. The average pairwise differences between pretest and post-test data shows there is a significant difference ( $p$ -value  $< 1\%$ ) amounting to 0.383 points. This means that there is an increase in social-emotional abilities of children after the implementation of a comprehensive game-based learning. In other words, learning-based games comprehensively improved children's social-emotional skills in TK Group B on trial group was significantly smaller

### *Large groups Trial*

The large group trial was conducted in class B1 with Salis Wiwitri as the teacher. Class B1 consisted of 14 children studying a. The trial program conducted on the prospective users of the program

before the program is implemented in real learning situations. These large group trials were conducted at Fithria Islamic Kindergarten with teachers. These trials were conducted over 12 meetings (three times round the center) using a guide and comprehensive game-based learning tools. Experiments carried out in accordance with the lesson plan developed by the researchers. The data generated in the large group trial illustrates that the implementation of a comprehensive learning based games model improved the social-emotional skills of kindergarten children in group B. The improvements can be seen in the difference between the beginning and end assessment scores of each child. From 14 children, 11 children increased social-emotional abilities after comprehensive based learning games for 3 rounds centers. Social-emotional abilities increased in the children by between 0.05 points and 0.93 points or 1.63% and 30.83%. Each child experienced an increase in socio-emotional abilities, though the amount of increase differed from child to child, most likely due to differing absorption rates of the children.

Comparison of the children's final assessment and initial assessment social-emotional abilities reveal that three children did not experience an increase in social-emotional abilities and some even received a final assessment score less than the initial assessment score. Those three children are F, J and M. It must be noted that just because the three children's scores did not improve, does not mean that the three children did not receive stimulation or arousal when playing the game Colored Stick.

In addition to the children having different absorption rates and learning styles, they have different characteristics. The three children were new students who entered Kindergarten B without entering Kindergarten A so they had missed out on crucial early childhood learning experiences. Additionally, they were still highly dependent on their parents or introduction.

Almost every day F and J had to be persuaded to go into the classroom and participate in the activities with their friends while M was frequently absent from school because no adult could take M to School. Other factors that can affect the increase in social-emotional abilities is children's attendance, learning experiences children have had before and the support of parents or family.

The result of the calculation of the t-test to test the mean paired difference between pretest and posttest data shows there is a significant difference ( $p$ -value  $< 1\%$ ) amounting to 0.451 points. This means that there is an increase in social-emotional abilities of children after the implementation of a comprehensive game-based learning, or learning-

based games can comprehensively improve TK Group B children's social-emotional skills in a large group.

The trial results of using the learning game Colored Stick in small and large groups is quite effective in helping children improve social and emotional abilities. This is consistent with the theory presented by Jackman Erikson that stated that the important thing in the playground is to help children develop friendly relations based on mutual trust. Erikson believed that children develop self-esteem and a sense of helplessness with the acquisition of the object. Hughes (cited in Hilda L Jackman, 2012: 21) strengthens Erikson's statement, namely, that play can also build ego functions as the development of physical and social skills and increase self-esteem. Lev Vigotsky states that "social experiences shape children's way of thinking and that social play offers children a way to interpret the world by focusing on rules that underlie all play activities and social interactions". The point is that the social experiences shape the way children think and that children's social play offers a way to interpret the world by focusing on the rules that underlie all play activities and social interaction. (Hilda L Jackman, 2012: 21)

A comprehensive game-based learning game called Colored Stick helps children develop social skills because the learning process is carried out in groups. Besides that, the child's emotional development is boosted as the game is very easy to use by children, so it helps children gain confidence and respect. Children will also not easily get frustrated because the concepts in the Colored Stick game are according to the age and development of children. Additionally, the children will learn patience because they have to wait for their turn to play. Overall, the results of this study illustrate that after following a comprehensive learning based game called Colored Stick, each child had an increase in the ability of social-emotional learning, especially if it is applied continuously and consistently throughout the school year progresses.

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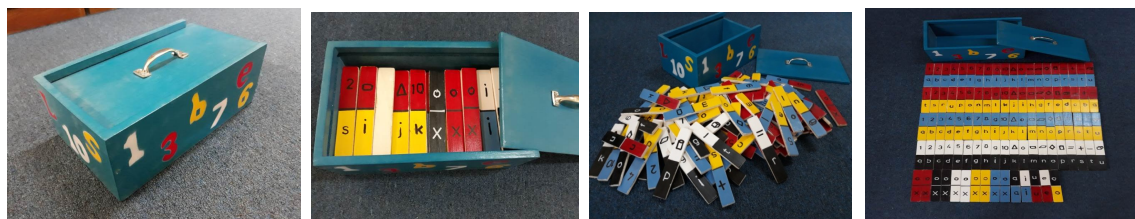
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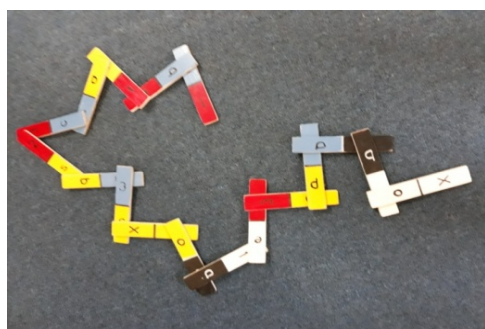
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**Photos from Sri Tatminingsih's collection (2019):**

Physical model of coloured stick game equipment



Examples of how to play colored sticks



Colors recognition



Sort numbers

Playing in groups





## **MÓDSZERTANI TANULMÁNYOK**



**IS ABSOLUTE PITCH A SPECIAL ABILITY OR SOMETHING WE ALL HAVE?  
A REVIEW BASED ON GENETIC, NEUROSCIENTIFIC AND EXPERIMENTAL  
PSYCHOLOGICAL FINDINGS**

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Kiss, L. (2019): Is Absolute pitch a special ability or something we all have? A review based on genetic, neuroscientific and experimental psychological findings. *Különleges Bánásmód*, 5. (1). 69–75. DOI 10.18458/KB.2019.1.69

**Abstract**

Absolute pitch (AP), the ability to identify and produce musical pitches without a reference point, is extremely rare and is considered to be a special ability. Although research has focused on this topic for decades, there is no consensus about why AP only occurs in 1 out of 10.000 individuals and how it is acquired. Therefore, the present article aims to review and reconcile the previous findings in order to understand the potential contribution of training and genetics in AP acquisition. Based on experimental psychological and genetic findings, it is concluded that although some components of AP are implicit and exist in the general population, both early musical training and genetic factors are crucial for AP development. This conclusion is supported by neuroscientific findings that provide evidence for differences in activations in specific brain areas between AP possessors and non-possessors.

**Keywords:** absolute pitch, musical training, pitch memory, pitch labelling, relative pitch

**Disciplines:** music, psychology

**Absztrakt**

KÜLÖNLEGES KÉPESSÉG AZ ABSZOLÚT HALLÁS? ÁTTEKINTÉS GENETIKAI, NEUROLÓGIAI ÉS KÍSÉRLETI PSZICHOLOGIAI TANULMÁNYOK ALAPJÁN.

Az abszolút hallás, vagy a zenei hangok referencia pont nélküli felismerése és produkálása, egy különleges és ritkán előforduló képesség. Annak ellenére, hogy a kutatások több mint egy évszázada foglalkoznak ezzel a témával, nincs egyértelmű válasz arra a kérdésre, hogy az abszolút hallás miért csak minden tízezeredik emberben fordul elő és hogyan alakul ki. Ezért, a jelen tanulmány célja, hogy áttekintse a korábbi szakirodalmakat és megvizsgálja a zenei képzés és a genetika jelentőségét az abszolút hallás kifejlődésében. Az áttekintő vizsgálatunk a kísérleti pszichológiai és genetikai kutatások alapján azt a következtetést vontatja le, hogy habár az abszolút hallás egyes komponensei az általános népességben is jelen vannak, a korai zenei képzés és genetikai tényezők döntő fontosságú az abszolút hallás kifejlődésében. Ezt a következtetést támasztják alá az idegtudományi kutatások eredményei is, amelyek különbségeket mutatnak az abszolút hallással rendelkező és nem rendelkező emberek között az egyes agyi területek aktiválásában.

**Kulcsszavak:** abszolút hallás, zenei képzés, hang emlékezet, hang megnevezés, relatív hallás

**Diszciplína:** zene, pszichológia,

Research on absolute pitch (AP), has grown significantly over the last decade (Levitin & Rogers, 2005) and it refers to the ability to identify (i.e., pitch labelling) or produce (i.e., pitch memory) a specific pitch without any external reference point

(hence the term ‘absolute’; Baggaley, 1974). It only occurs in 1 out of 10.000 individuals (Profita & Bidder, 1988; Ward, 1999) and is in interest of geneticists, neuroscientists and experimental psychologists (Zatorre, 2003). There are two rea-

sons for that: Firstly, AP provides a way to understand how specialised abilities are linked to brain functions, and secondly, AP is a great example of how genetic factors and environmental input during development influence cognitive ability (Zatorre, 2003). Despite the large interest in this area, AP is still regarded as a mysterious talent, because of the controversial findings on its defining skills and mechanisms (Levitin, 1994). Some theories suggest that AP can be learned through early childhood musical training, while others assume that AP depends only on genetic factors and is independent from musical experience (Boss, 2004). The present article aims to disentangle this controversy by reviewing the existing literature and showing that both genetics and early musical training are crucial for AP acquisition. This review will first explore the implicit components of absolute pitch, before focusing on the importance of early musical training. Then, it will look at the contribution of genetic factors and the specific brain areas associated with AP.

#### **Implicit components of absolute pitch**

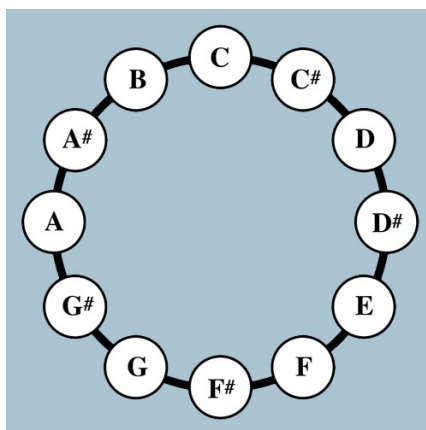
Even though eliciting AP is rare, most people have an implicit form of AP (Deutsch, 2013). According to the two-component model, both absolute pitch memory and pitch labelling are necessary for possessing AP (Levitin, 1994). A growing number of empirical studies suggest that pitch memory, the ability to hold stable information of pitch in long-term memory, is an ability most people have (Zatorre, 2003). For example, people can easily identify a musical note as coming from a piano rather than a guitar and they can remember and produce a pitch from their favourite pop song (Zatorre, 2003; Levitin, 1994). Based on this idea, Levitin (1994) proposed that AP is not a mysterious ability, but only a small increase in memory capacities that are nevertheless unexceptional in the general population. He hypothesised that repeated exposure creates memory representations of the songs with the correct pitches that is later accessible to the participants. There were 46 participants in the study with and without music background and 2 AP possessors. Participants listened to pop and rock songs that only exist in one key, thus providing one exact pitch. They were asked to identify pitches in the songs and recall the accurate pitches in a production task. Importantly, Levitin (1994) found that 40% of the participants could perform without error on at least one trial and that the errors made by participants were within 1 and 2

semitones of the correct pitch and not evenly randomly distributed. Therefore, this provides evidence that absolute pitch memory exists in the general population and is a stable memory representation.

Other evidence for an implicit AP comes from Deutsch (1992), who used the Tritone Paradox based on the pitch class circle to test whether people hear an ascending or descending pattern. The pitch class circle consists of the 12 notes from the Western musical scale (1 octave divided into 12 semitone steps), in which the note names are repeated across octaves (see Figure 1) (Deutsch, 1992). The Tritone Paradox consists of two successive musical notes on the pitch class circle that are connected by half an octave (a tritone). Although the note names are clearly defined on the circle, the octave they are in is ambiguous (whether it is a middle C, a C an octave above or below), consequently there is no correct answer whether a pattern is ascending or descending. Surprisingly, Deutsch (1992) found that when a tone pair was played (i.e., D and G#), some listeners heard an ascending, while others heard a descending pattern. Then, when another tone pair was played (i.e., F# and C), the first group heard a descending pattern and the second group heard an ascending pattern. Importantly, the pitch classes were perceptually systematic with relevance to their height for each participant. This means that tones on one part of the pitch class circle were heard as higher, and on the other part as lower. Based on these findings, Deutsch (2013) concluded that average people judge the relative heights of tones' pitch classes when they refer to them, which highlights the use of pitch memory and an implicit form of AP.

Research has also explored whether pitch labelling, the other component of AP, is implicit. As Schellenberg, Iverson and McKinnon (1999) highlighted, ordinary people are able to label pitches to some degree, but rather than identifying a musical tone by name (e.g., C, F#, etc.), non-AP possessors simply use 'ad hoc' labels tied to the lyrics. For example, most people familiar with the song 'Hotel California' will sing the right note for the word 'hotel', but only AP possessors can link 'hotel' to the note G (Levitin & Rogers, 2005). Thus, although there is empirical evidence for an implicit form of AP in the general population, verbally labelling isolated notes is the one component that makes AP possessors special.

Figure 1. The pitch class circle representing the 12 semitone steps in an octave in the Western musical scale (Deutsch, 1992)



### Sensitive onset period

How the ability of pitch labelling could be attained is, however, still unclear. Many hypotheses have been proposed to explain AP development, some arguing that it is possible to learn AP during a sensitive learning period, while others arguing that its development is genetic (Deutsch, 2013). Clearly, musical training is essential for verbally labelling pitches (Zatorre, 2003), but research has shown that it must happen early in life (up to 9-12 years of age; Miyazaki, 1988; Baharloo, Johnston, Service, Gitschier, & Freimer, 1998). Nonetheless, even though the prevalence for AP is higher amongst people who started music education before the age of 6 (Baharloo et al., 1998; Gregersen, Kowalsky, Kohm, & Marvin, 1999), not all of them develop AP (Zatorre, 2003; Deutsch, 2013). It might partially depend on the type of training they receive, because the majority of training techniques focus on relative pitch (RP), the ability to produce or recognise intervals or relations with other pitches (Levitin & Rogers, 2005), rather than teaching the specific pitches themselves (Zatorre, 2003). Furthermore, the type of instrument(s) one learns might also influence AP development. Specifically, some instruments do not have fixed-pitches (e.g., violin) and if one plays more than one instrument, those might not be tuned for the same standard which could hinder AP acquisition (Zatorre, 2003).

A study by Saffran and Griepentrog (2001) showed that infants indeed prefer to use AP cues over RP cues, but there is a shift to prioritise RP cues in adulthood as a consequence of the mentioned factors (e.g., training technique, instruments played). Saffran and Griepentrog (2001) tested the use of AP and RP cues in a statistical learning task in 20 8-month-olds and 120 adults during which they learned tone sequences. Interestingly, they found a shift between the use of pitch cues in in-

fants and adults. While infants relied heavily on AP cues and could not perform successfully on the task based on RP patterns, adults showed the opposite results and could only perform above chance when they relied on RP cues. The researchers therefore argued that this shift occurs because of RP information being more useful for music and speech processing (Saffran & Griepentrog; 2001). Nevertheless, these results only suggest that people prioritise different pitch information at different ages and cannot conclude that only one type of information is used by infants and adults. Furthermore, the stimuli used in this study were unsegmented, unmusical tone sequences, and more complex musical stimuli should also be tested in the future.

Further evidence for a sensitive onset period was found by Deutsch, Henthorn, Marvin and Xu (2006), who compared the presence of AP between 88 Chinese and 115 American music students. They used a large-scale study during which participants were asked to identify 36 music notes in writing either by letter name (e.g., D, C#, etc.) or by solfeggio name (do, do-sharp, re, etc.). The letter and solfeggio names indicated 'moveable-do training' and 'fixed-do training', respectively. Importantly, Deutsch et al. (2006) found that participants who started training earlier had higher probability of attaining AP and the prevalence of AP was found to be significantly higher amongst Chinese than American students. In particular, 60% of Asian students who started training before the age of five had AP compared to 17% of Western students. Moreover, up to the onset age of 9 years, moveable-do participants scored twice as high on the AP test than fixed-do participants. Interestingly, moveable-do learning techniques are more common in China, where the prevalence of AP was also found to be much higher, which might

suggest a correlation between moveable-do learning and AP (Deutsch et al., 2006).

In light of these findings, it is possible that more people would establish AP given the right and early training but training itself cannot explain why children have AP despite hearing out-of-tune instruments and singing (Zatorre, 2003). It also cannot explain why some people who receive AP specialised training can never become AP possessors (Zatorre, 2003). Moreover, many AP possessors do not remember acquiring this ability in their lives and report that it happened naturally to them, which indicates that there must be other contributors apart from training (Zatorre, 2003). A feasible reason for the unusual distribution of AP in the population could be that there are some underlying genetic factors (Levitin & Rogers, 2005).

### Genetic factors

Many previous studies have investigated the genetic components of AP and showed an association between siblings, first-degree relatives and twins, even when early musical training and other environmental factors are accounted for (Baharloo, Service, Risch, Gitschier, & Freimer, 2000; Baharloo et al., 1998; Gregersen, 1998; Gregerson et al., 1999; Profita & Bidder, 1988). For example, Baharloo et al. (1998) conducted a survey study with 600 musicians and reported that individuals possessing AP were four times more likely to have a relative with AP than non-AP possessors. Nonetheless, early musical training was still important: almost all AP possessors started training before the age of 6 (Baharloo et al., 1998). Thus, this indicates an interaction between genetics and a critical learning period in childhood, during which some individuals are more receptive to improved pitch perception than others (Baharloo et al., 1998). One limitation of this study is, however, that the survey was a self-report questionnaire and some participants might have judged the AP ability of themselves and their family members more critically than others (Baharloo et al., 1998).

Another survey study was performed by Gregersen et al. (2001) to test whether AP is differentially distributed in the population, with Asian people having a higher prevalence rate than Caucasian people. Similarly to the hypothesis, the researchers found that out of the 1067 music student participants in the United States, 47.5% of Asian students reported having AP compared to 9% of Caucasian students. The high AP prevalence amongst Asian students was found to be unrelated to sociocultural variables, because it was also reported in Americans with an Asian descent. It was also independent of speaking a tonal language as not all Asian languages

involved in the experiment are tonal (e.g., Chinese, Korean, Japanese; Zatorre, 2003; Baharloo et al., 2001). Interestingly, the higher AP rate in Asian ethnicities remained even after controlling for the early exposure to music and moveable-do musical training of Asian children. Based on these findings the researchers concluded that there is a genetic factor in AP development (Baharloo et al., 2001; Gregersen et al., 2001; Zatorre, 2003).

A few years later, Henthorn and Deutsch (2006) reanalysed the data obtained by Gregersen et al. (2001) and found that there was no significant difference in AP prevalence between East Asian and Caucasian participants when taking only those participants who spent their early childhood in North America into account. This prevalence was still significantly higher for individuals who spent their early childhood in East Asia rather than North America, thus again highlighting the importance of environmental factors (Henthorn & Deutsch, 2006).

Nonetheless, the unusual distribution of AP scores in the population made researchers conclude that there are indeed genetic contributing factors to this trait (Athos et al., 2007; Bermudez & Zatorre, 2009; Deutsch, Dooley, Henthorn, & Head, 2009). Instead of a continuous distribution, the scores attained on AP tests were similar to a bimodal distribution, with some people performing with very high accuracy, some near the generally accepted AP criteria and some at chance (Athos et al., 2007; Bermudez & Zatorre, 2009; Deutsch, Dooley, Henthorn, & Head, 2009). Considering that most human traits have a normal distribution with extraordinary individuals on the high end (Drayna, 2007), the distribution of AP scores is indeed unusual, indicating a genetic basis (Deutsch, 2013).

Yet, to justify the idea of a genetic factor, there should be a gene that is responsible for the AP trait (Deutsch, 2013). To locate parts of the human genome that could be related to an AP-predisposing gene, Theusch, Basu and Gitschier (2009) performed a whole-genome linkage analysis on 69 families. They found that the most powerful proof for a connection was on the 8th chromosome in multiplex AP families with European ancestry and a chromosome 7 peak was also apparent across 19 multiplex AP families with East Asian ancestry (though this peak did not reach significance level). Therefore, as Deutsch et al. (2013) later suggested, although these results provide good preliminary evidence for a genetic basis of AP, the discovery of a specific AP gene requires future research.



### Brain areas linked to absolute pitch

Research has also focused on the neurological underpinnings of AP to understand the genetic and environmental contribution to its acquisition as well as the differences in brain mechanisms between AP possessors and non-possessors. Structural and functional neuroimaging studies found that some networks of cortical areas are uniquely structured in AP possessors that reflect both innate and environmental influences during the critical period (e.g., Bermudez & Zatorre, 2009; Zatorre et al., 1998; Oechslin, Meyer, & Jancke, 2009; Schulze, Gaab, & Schlaug, 2009; Wilson, Lusher, Wan, Dudgeon, & Reutens, 2008). Specifically, Zatorre et al. (1998) conducted three experiments to explore which brain areas are related to AP. In the first experiment, they found that the planum temporale (PT), an anatomical marker of auditory association area (Loui, Li, Hohmann, & Schlaug, 2010), was more asymmetrical on the left part in AP possessors than controls in a pitch-naming task, while there was no significant difference on the right side (Zatorre et al., 1998). This exaggerated asymmetry on the left was related to less errors in identifying pitches and to auditory processing, meaning that the left hemisphere of AP possessors is biased towards processing pitch information (Zatorre et al., 1998; Loui et al., 2010). Keenan et al. (2001) confirmed the increased leftward PT asymmetry, though in their study it resulted from a right PT smaller than average.

In the second experiment with positron emission topography (PET), Zatorre et al. (1998) measured cerebral blood flow and found that individuals with AP showed activations in the left posterior dorsolateral frontal cortex when they named single notes, whereas RP possessors only showed that activation when naming intervals (whether minor or major). Interestingly, the posterior dorsolateral area of the frontal cortex is also associated with learning conditional associations (Zatorre et al., 1998), proposing that the activation might only happen in AP possessors, because only they can label individual tones readily (Zatorre, 2003). This also points out the importance of environmental factors and receiving the right training method. This finding is further supported by Ohnishi et al. (2001), who also observed an increased activation of the left posterior dorsolateral frontal cortex during a music listening task in people who scored high on AP.

Interestingly, another finding by Zatorre (1998) was that there was no activity in the right inferior frontal cortex of AP possessors compared to controls in an interval-judgment task, indicating that there is no need to access working memory for AP possessors in such tasks and they can rely on their

long-term memory and categorical representation of tones instead. Schulze et al. (2009) supported this conclusion and conducted a pitch memory experiment with functional MRI. Similarly to Zatorre et al. (1998), Schulze et al. (2009) also found that AP possessors have a categorical representation of tones, because there was an activation of the left superior temporal sulcus that is involved in the categorisation of tasks. Additionally, Schulze et al. (2009) have shown an increased activation of the right superior parietal lobule and intraparietal sulcus in non-AP possessors, which indicates the use of working memory and the use of a multimodal encoding strategy (i.e., imagining notes on a scale) for recalling pitch information. This therefore provides additional support for the view that non-AP possessors require conscious efforts to identify pitches compared to AP possessors who can label pitches automatically.

### Future directions

Although these neuroscientific findings help better understand the underlying mechanisms of AP, the cause and effect relationship is still unknown (Levitin & Rogers, 2005). Thus, in the future, research should investigate whether the neurological differences between AP possessors and non-possessors cause or affect AP and the joint contributions of both genetic and environmental factors. In addition, future studies should explore the idea of a sensitive learning period and the necessary conditions during that period for successful AP acquisition.

### Conclusions

In summary, this review explored the existing literature on AP with relevance to its acquisition. It showed that even though most people have some implicit aspects of AP, such as memory for pitch, having AP is a special ability. Based on relevant research, it is suggested that AP acquisition depends on both genetic and environmental factors, such as receptivity to pitch perception and training techniques, which could explain its rarity and unusual distribution in the general population.

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## ACCESSIBLE TOURISM SERVICES IN THE NORTH GREAT PLAIN REGION

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### Abstract

In the ever-increasing competition between the tourist destinations, the rethinking of the primary and secondary attraction factors (Bácsné et al., 2018), their re-planning, supplementation, and development are indispensable. This is also true for the Hungary and the Northern Great Plain region, where the availability of therapeutic and thermal water is a priority factor (Müller & Könyves, 2006; Müller & Kórik 2009; Michalkó & Rác 2011; Löwei 2017). The further development towards accessible tourism, even for a long-standing, well-established destination in health tourism is to be considered, in order service providers not only could strengthen their existing position but also open up to new markets and consumer groups (Mosonyi et al. 2013, Lengyel 2015). The understanding and implementation of strategies for new consumer groups include the product and service evaluation based on individual leisure constraints.

**Keywords:** accessible tourism, destination attraction factors, inclusion, leisure constraints of people with special needs

**Disciplines:** business economics and organizational studies

### Absztrakt

#### HOZZÁFÉRHETŐ TURISZTIKAI LEHETŐSÉGEK AZ ÉSZAK-ALFÖLDI RÉGIÓBAN

Az idegenforgalmi célpontok közötti egyre növekvő versenyben elengedhetetlenek az elsődleges és a másodlagos vonzerők újragondolása (Bácsné et al., 2018), újratervezése, kiegészítése és fejlesztése. Ez igaz Magyarországra és ezen belül az észak-alföldi régióra is, ahol a terápiás célra hasznosítható gyógyvíz és termásvíz rendelkezésre állása kiemelt tényező (Müller és Könyves, 2006; Müller és Kórik 2009; Michalkó és Rác 2011; Löwei 2017). A hozzáférhető idegenforgalom irányába történő továbbfejlesztést még az egészségturizmus régóta, jól működő desztinációinak is fel kell vállalniuk, hogy ezzel a szolgáltatók ne csak megerősítsék meglévő pozíciójukat, hanem új piaci szegmensekre és fogyasztói csoportokra is nyitottak legyenek (Mosonyi et al. 2013, Lengyel 2015). Az új fogyasztói csoportok fogyasztói szokásai megértése és az ennek megfelelő stratégia megvalósítása magában foglalja az egyéni szabadidős korlátokon alapuló termék- és szolgáltatásértékelést.

**Kulcsszavak:** hozzáférhető idegenforgalom, rendeltetési hely vonzereje, befogadás, szabadidős korlátok a speciális igényűek számára

**Diszciplínák:** gazdálkodás- és szervezéstudomány

Several studies and comprehensive surveys have been conducted on the travel products market about the accessibility of products and services. However, the findings show that while travel products and itineraries are available everywhere for the public, they are often inadequate for people with special needs. Even though people with special needs might have impairments, they also have profound travel needs and motivations. When prospective customers with special needs are provided with various alternatives, they would have stronger intentions, preferences, and perceptions, and could partake in outdoor and leisure activities (Darcy, 1998, Laoues-Müller, 2018). When studying limitations on participation and consumer attitudes the hierarchical model posits that leisure constraints exist at three levels: intrapersonal, interpersonal, and structural which must be navigated sequentially for participation to take place or continue/progress (Godbey et al., 2010).

In our recent approach, we focused on the existing features of destination management, product and service elements which are mainly related to the structural constraints, and may influence consumer behavior and choices of customers with special needs.

### THEORETICAL BACKGROUND

Health tourism refers to the area of tourism where the main purpose of tourism is to improve and preserve health. Health tourism can be a form of spa or wellness tourism (Müller et al. 2005). The main motivation of medical tourism is the improvement of the health condition, healing, rehabilitation (Müller et al. 2018a), where the aim of the health care treatments included in the provider's offer is to use other tourism services as well (Müller et al. 2018b). Generally, those who wish to heal are usually prescribing, but in recent years, with increasing purchasing power and widening benefits, self-financing of services is becoming increasingly important. The goal of wellness tourism is to preserve health, in which guests use tourism services that also contain health elements. Generally, wellness providers offer attractive health care prevention programs in an attractive environment (KSH 2011).

One of the most significant elements of tourism potential in the Northern Great Plain is health tourism, as the region is rich in thermal and medicinal waters. In 2011, there were 72 baths in the region - 16% of those operating in the country - 26 of them in Hajdú-Bihar and Jász-Nagykun-Szolnok counties and 20 units in Szabolcs-Szatmár-Bereg counties. Of the spas, 29 were spa baths, 26 ther-

mal baths, and 17 baths. Also, there are 22 beaches, 54 swimming pools and 12 other baths in the region. Most of the spas - 15 - operated in Hajdú-Bihar county. The largest number of thermal baths can be found in Jász-Nagykun-Szolnok county, by number 11.

In 2012, 3 of the settlements in the North Great Plain were spa hotels in 9 settlements. Among the settlements of the Northern Great Plain, which are known primarily as health tourism destinations, the most visited were Hajdúszoboszló, Berekfürdő, and Cserkeszőlő, where the total number of guest nights of all commercial accommodations was registered at 53% (HCSO 2013).

One of the outstanding features of the North Great Plain region is the treasure of thermal and thermal water found in the area. This may be a good chance for more settlements in the region to compete in the increasingly fierce competition of destinations (Müller et al., 2005). In this competition, a new element has emerged, a range of services for people with special needs, which further illustrates physical accessibility and the range of medical services. People with special needs who are looking for accessible tourism services are also different in their motivation. According to TSAY (2010), the use of services and decisions to do so greatly help to overcome the mistrust, shyness, and lack of confidence of the individual. However, this requires a supportive environment and adequate supply. Crawford et al. (1991) proposed the leisure constraints model which classifies factors influencing individual leisure constraints into three categories: intrapersonal, interpersonal and structural. In our investigation, we focused on the analysis of the probable existence of structural constraints in the services and product environment.

The attractiveness factors of the destinations are primary (capability-type) - thermal water, natural environment, cultural environment - and secondary (built-in) - spa, spa, wellness services, related other tourism services, architectural design, cultural and sports programs, conference services, gastronomy (BOROS et al., 2012, Müller et al. 2018b).

### METHODS

The Institute of Sport Science at the University of Debrecen surveyed on the topic of tourism and wellness services in the North Great Plain region, using a structured questionnaire. Furthermore, intensive online research was conducted to touch into all available information resources regarding the targeted destinations. In this study, our conclusions were formulated for the answers and infor-

mation gathered so far in 2017 and 2018 about a priority destination, namely Cserkeszölő.

### Results

Accessible tourism means tourism that is equally accessible to everyone. It includes people with disabilities, people with temporary disabilities, the elderly, young children and multi-generational families. Physical accessibility is essential for health tourism providers but is not yet complete in the area of related services.

Cserkeszölő is a well-organized spa and beach in South Great Plain (but located in the region) without significant secondary attractions. The existing swimming pools are well separated from the parts for other leisure activities; there is a well planned and coordinated set up for the health and leisure related areas. The medical tourism was based on iodine-bromine water of 82 degrees Celsius. In 2010, the well-designed indoor swimming pool was completed, which made it possible to operate comfortably and smoothly throughout the year. As an example of successful smaller beaches, it was mentioned in the Great Plain, which has led to the development of accommodation and service developments.

The spa also provides medical services, so during the renovation, rebuilding, and development of the physical environment the special needs have been taken into account to a great extent, as well as providing the special equipment needed to use the pools. Naturally, the development of the spa has significantly contributed to the development of the settlement itself, which was unfortunately affected by the economic crisis that began in 2008. The population expects similar momentum from the current transport development project - i.e., building the M44 road - although its effects can be difficult to measure until the project is fully completed.

When looking at the availability and quality of accessible tourism services, we need to consider all areas of it, including hotels, hospitality, other services, tourist attractions, transport, and communication.

In our study, we focused primarily on accommodations, as well as on the services they provide. The results of the earlier research in the field of health tourism in the spa of Cserkeszölő gave us a good starting point (Müller et al., 2005). The data related to the services provided for people with special needs collected so far are much ambivalent. There is a need for further data collection and data analysis to draw definitive conclusions. However, based on the preliminary results available now, initial recommendations might be formulated right away.

*Accommodation.* More than 130 rooms and 16 guest houses have been built alongside the previously available campsite, and the number of private accommodation has also increased steadily. According to the characteristics of thermal water, which is the primary attraction factor, the main product is the range of health tourism services, which has brought along the physical accessibility of the accommodation. Private accommodation providers have also begun to recognize the potential of special needs, for example, the construction of a physically accessible private pension, as well as accessible facilities for the yurt camp next to the spa. However, it can be stated that the destination has only taken the initial step, as the development potential is not fully exploited in terms of secondary attractiveness.

*Hospitality.* The hospitality-related hospitality has the same characteristics as the hotels themselves, as they were developed along with the accommodation or in parallel. However, the development opportunities mentioned earlier are more prominent here, as, in addition to the physical environment, human interaction is becoming increasingly important. The question of staff training and sensitization, which we have not yet received a satisfactory answer for the destination, is already here.

*Other services.* We do not have comprehensive data for other services. We have no data about the settlement as defined by the law, especially about physical aspects, accessibility, but the full availability of services. From the information provided by the hotels, we can only conclude - knowing the current labor market trends - that the lack of specially trained, a trained workforce with them is present in other service areas.

*Tourist attraction.* Cserkeszölő itself has no outstanding tourist attractions; the destination concept is built around the spa. In the opinion of others, this is not sustainable in the long term, from retaining and re-appearance of the guests by experience. The settlement is one of the youngest settlements in the county since 1 January 1952, as it was formerly part of Tiszakürt. The main reason for the separation was discovered in the hydrocarbon exploration of the Hungarian-American Oil Research Company in 1942-43. Taking advantage of the limited possibilities of the settlement, it tries to develop the offer of a tourist attraction. However, the elements of accessible tourism development have not been exhausted to its full extent so far. Among the limited possibilities are the renovated wine house and cellar and the Szinyei Merse Castle, the Cserkeszölő Kunhalom, and the natural values of the so-called Great Forest and the Great Fertő Lake from its wildlife. Regarding availability and

accessibility, each of them is waiting for serious improvement.

However, the location of Cserkeszölő, the fact that he was part of Tiszakürt earlier, has great potential. One of the most beautiful arboretum in Hungary is located in Tiszakürt. The "brother" of the arboretum of Tiszakürt is located in Szarvas, a situation - i.e., proximity to two significant natural values - a great attraction for nature lovers. We could talk about similar opportunities in the nearby Tisza and Kőrös, but their development has not been done so far in a way and to the extent that they can be considered from accessible tourism.

*Transport.* It is located in the southern part of Jász-Nagykun-Szolnok county, in the Tiszazug, between Tisza and Hármas-Körös. In the west, the nearest cities are Kecskemét, Tiszaföldvár to the north, Kunszentmárton to the east. The main road 44 passes through the village, while the Kecskemét – Kunszentmárton railway line does not touch, but in the south, it passes Cserkeszölő towards Csépa and Szelevény. It is 127 km from Budapest, 45 km from Szolnok and Kecskemét. Due to its location, its approach by car is most obvious, which is especially important for people with special needs, as the available public transport options - long-distance bus services - are not fully accessible. The M44 development mentioned earlier does not provide any information as to the extent to which the current situation or the accessibility of the settlement will change or improve. Based on the travel habits of people with special needs, according to which car traffic and special bus services are used in groups, it is hoped that the attraction of destination will be increased regarding accessibility.

*Communication.* The development potential of the destination is the most significant in the field of communication. From the information we received in our questionnaire, "Is the service provider's news about the product and service available to guests with special needs listed above?" The most prominent is the spa, which is the main attraction of the destination, where the website is also not accessible.

### Discussion

When examining Cserkeszölő as a major health tourism destination, we find a surprising result when we consider the barrier-free tourism services. Based on the time since the construction of the spa in 1955, we can think that the health tourism service, the characteristics, and needs of those who use it the most, is a barrier to services, or at least the service providers strive to do so.

If we assume that a service location within barrier-free accessibility allows all products and services,

it offers to be equally accessible to everyone, including people with disabilities, the elderly, and any other user with special needs/needs, we can rightly think of the existence of overlaps between the needs of the target groups.

Regarding increasing competition among the destinations, it is also important that Cserkeszölő and the providers of tourist services there review the services they provide and the attractiveness factors to ensure their maintenance by opening them up for the development of accessible tourism. Building on the existing basic accessibility, which is most evident in the development of the physical environment, it also allows for the involvement of new consumer groups and the general quality of services.

The publication was supported by EFOP-3.6.2-16-2017-00003. The project was funded by the European Union and co-financed by the European Social Fund.

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**INTERPRETATION OF THE MOST IMPORTANT NOTIONS OF SOCIAL  
INEQUALITIES OVERT IN THE EDUCATIONAL SYSTEM**

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**Abstract**

Present paper focuses on the social inequalities that are mainly manifested in the educational system. Therefore, I aim at reflecting on the sociological definitions that codify the subject in a theoretical context. The theoretical background of the study comprises the subsequent notions: equality and equity, inclusive society and education, bicultural socialization and the relation between social mobility and school.

**Keywords:** education, equality, inclusion, socialization

**Disciplines:** pedagogy, sociology

**Absztrakt**

A TÁRSADALMI EGYENLŐTLENSÉGEK OKTATÁSI RENDSZERBEN MEGJELENŐ LEGFONTOSABB FOGALMAINAK INTERPRETÁCIÓJA

A tanulmány azon társadalmi egyenlőtlenségekkel foglalkozik, amelyek elsősorban az oktatási rendszerben manifesztálódnak. Ennek értelmében a dolgozat arra vállalkozik, hogy azokat a szociológiai fogalmakat járja körül, amelyek a témát elméleti kontextusba ágyazzák. A tanulmány elméleti vázát a következő főbb terminológiák képezik: esélyegyenlőség és méltányosság, inkluzív társadalom és oktatás, bikulturális szocializáció, valamint a társadalmi mobilitás és az iskola relációja.

**Kulcsszavak:** oktatás, inklúzió, szocializáció

**Diszciplínák:** pedagógia, szociológia

**Theoretical framework of equality**

In accordance with the theories of sociology, present-day modern societies may be considered as democratic if their leaders do their bests to provide the individual with subsidies and possibilities that help to overcome social disadvantages and to establish the framework of social mobility (Varga, 2018).

It is inevitable to define the notion of equality to delineate the theoretical framework of the above idea. The explanation of the notion shall be carried out with due care, since the interpretation shall be realized in a twofold level as distinction shall be made between equality and equity (Varga, 2015).

Equality means that all citizens are provided with equal access to material and immaterial goods in a society. Moreover, the notions of equal treatment and prohibition of discrimination belong to the

idea of equality. All in all, equality guarantees a social minimum according to which no one can be discriminated due to his/her real or deemed attributes. In Hungary, this is codified in Act CXXV of 2003, while it is regulated by Article 14 of European Conventions on Human Rights at an international level (Papp, 2012).

The notion of equity, however, emphasizes that the elimination of factors that are the main causes for social disadvantages is not sufficient as the conditions of real equality are not provided by such elimination. “Besides the equity and the ban on discrimination, it means the realization of supporting factors that are measures and acts against inequalities observed in the society” (Varga, 2015. 243.) This implies that the set of conditions required for the supporting tools is not provided automatically; rather uninterrupted and dynamic acting is needed.

In practice, efforts are required to provide those in inequality with goods.

The elaborated definitions of equity is of importance as it has more aspects other than human rights – it also plays a significant role in measuring the success of educational systems and students. This is due to the more and more popular international approach according to which the quality education shall be interpreted within the framework of efficacy, competence and equity.

Moreover, I think it is important to highlight that the notion of equality is overshadowed in the social discourse and the characteristic features and measures that are related to the set of conditions of equal opportunities are now assigned to the notion of equity.

### **Equality and equity from the perspective of educational system**

Pierre Bourdieu studied the problem of the recurring social inequalities and the role of the school in this phenomenon. Bourdieu draws the attention to the fact that certain social inequalities are generally converted into school inequality and the different educational levels are coupled with different career chances (Bourdieu, 1997). Moreover, educational system has two basic functions, the French scholar states. One is to preserve the characteristics features of the own system and the other is to safeguard the basic mechanisms of the concerned social system. This means that the educational system contributes to the recurring of classes in a form in which the school seemingly maintains its autonomy. This means that equal access to studying and education is provided for all individuals of the society, even at the level of the legal provisions, however, there are certain latent mechanisms in the relation of the cultural capital of the family that greatly determines the successful advancement of the student in the schools (Pusztai, 2015).

In this case, the theory of the implementation of equality means that everybody can enroll in the educational system, however, at the same time, students with low social status are only successful if their advancement are accompanied by certain supporting, that is to say, equity services.

This conception occurred in the American social discourse in the 1970's. According to this, the equality theory regarding enrolling in the educational system is approached by the perspective of cultural differences between the school and certain families. For the success of the student, the characteristics of the familial socialization shall be considered as significant factors, and, moreover, that fact that how the educational systems are related to it.

The biggest problem occurs when the difference between the set of values of the family and the school is rather significant. In this case, the solution is to elaborate interventions that provide the approach of the two distinct cultural spaces towards each other. According to Adler, this process is called bicultural socialization (Varga, 2015).

The uniqueness of bicultural socialization lies within the fact that it focuses on the parallel impact system of the socialization in the institutional space (family and school). According to this, the successful school advancement and successful social integration depend on the extent of the interrelation between the two socializations spaces. In Aranka Varga's interpretation: "In the dual process of bicultural socialization, the impact of public education (kindergarten, school) is overt besides acquiring the cultural features of familial socialization, where the culture of the majority society is the subject of the socialization process. Regarding this duality, the theory of bicultural socialization unambiguously declares that there are certain familial socializations whose cultural content is slightly overlapping with the cultural space of the school." (Varga, 2015. 248.)

In the case of such family, progress is only made if the actors of the bicultural field consider the cross-compliance of the two distinct spaces as their common role. Two actors play an important role in this process. One is the mediator who is familiar with the entire educational system and school and provides the most important information from firsthand. Teachers are typically considered as mediators. They are able to establish contact with the family, that is to say, with the primary socialization space. After getting familiar with the cultural characteristic features of the family, the teacher tries to carry over the most important ones to the school, to widen the overlapping between the socialization space of the family and school.

Another significant actor of the bicultural socialization space is the translator. The translator is from a family in which the culture is different from that of the school, however, despite such differences, this person was successful in the socialization space of the school. Therefore, the translator is able to convey the value system of the secondary socialization space to his or her community. This role mainly relies on his or her credibility. The set of tools applied include direct mediation and unnoticed transfer of patterns (Fehérvári, 2015).

I think it is important to emphasize that bicultural socialization is a two-way process and it is ordinary that conflicts may arise upon correlating the two distinct cultures. Therefore, uninterrupted and indirect communication and cooperation shall be

regarded as one of the most important factors of bicultural socialization.

### **Mechanisms of inclusivity reducing social equality**

In the regard of the theory of bicultural socialization, I think it is important to provide an overview and analysis on the theoretical framework and practical implementation of inclusion or inclusivity. This approach is relevant as inclusion implies a certain acceptance and such process is inevitable to achieve the goal set by bicultural socialization – the widening of the overlapping between the primary and secondary socialization space.

Prior to defining the concept of inclusion and inclusive social education, it is inevitable shed light on the notion of multiculturalism as the concept of inclusion is derived from the notion multiculturalism (Torgyik, 2015). Multiculturalism places the main emphasis on the assumption that social diversity shall be considered as a value. Moreover, the cohabitation of different cultures and identities is to be encouraged. Besides these, the handling of the multicultural society from equality perspectives and the intercultural pedagogy are of importance as success in school provided by equal focus on every student.

Consequently, inclusion draws inspiration from the notion of multiculturalism, however, its interpretation was narrower in the beginning. Originally, inclusion meant the efforts on the successful institutional education of the disabled students. That is to say, interventions related to integrative school intervention, such as supporting adapting to the students with special needs, were considered as inclusions (Papp, 2012).

Lately, the notion of inclusion has been modified from multiple aspects and now can be more widely interpreted. The main change is that the number of individuals and groups rose who are in the focus of acts carried out for the purposes of inclusion. The reasons for this are as follows: "... without the customized changes of the environment, groups other than the disabled are endangered by the exclusion processes. Thus the activities successfully supporting inclusion, such as preventing school dropout or eliminating the limits of access, gradually cover individuals and groups that are frequently excluded from education or certain segments of the society" (Varga, 2015. 250.)

The widening of the concept of inclusion not only meant that the focus was directed towards a wider target group. The focus was excerpted from the framework of the educational system and an approach that can be interpreted at social level was

formed, which occurs as the idea of social inclusion in the scientific discourse. This term is often related with the notion of integration as in certain cases they replace each other and are in a complementary distribution.

However, the formation of social inclusion was not by chance. The European Union played an important role in establishing and spreading the concept. In the beginning of the 2000's, the declaration of social cohesion, that is to say, the conflict-free cohabitation of different social classes was one of the most important principles of the EU.

The main field of the above-described social implementation of the notion is in the educational institutions. In accordance with the basic principle of inclusion, one of the major starting points of host society is the school as activity mechanism that is an "activity with the community, in the community and for the community" may be realized mostly in schools.

The practical implementation of inclusive education was facilitated by the guidelines of UNESCO published in 2005. Among such policies, one openly declares that inclusion unconditionally accepts diversity and is not restricted to special education and its reforms. The directives are not only aimed at providing the improvement of the educational environment of disabled children but also at granting quality educational environment to all students.

Apart from the core guidelines, the UNESCO report defines four core principles of the inclusive education. First, inclusion is a never-ending process and is able to provide answers for the multitude of problems detected in schools. Second, inclusion strives for gathering as much information and data as possible to be able to detect the problems after the evaluation. Third, the presence of inclusion in schools induces a measurable performance for all students. Fourth, inclusion pays special attention to the successful school advancement of students who are especially endangered by exclusion and its consequences.

### **The relation of social mobility, equality and school**

It is an excellent question that what are the reasons behind the fact both the European Union and UNESCO have organized programs against school inequalities. The more improved a society is, the more education defines the position of the individual in the social inequality system (Ferge, 1980). Therefore, the relation between education and equality was in the focus of social scientific research between the two world wars. The majority studies on the subject reflect on the fact that indi-

viduals from different social classes have different chances in enrolling in certain types of school of the educational system. Lawton highlights the situation of the workers to introduce the problem (Lawton, 1974) as it is much harder for the children of the workers to be admitted in grammar schools. Moreover, students from lower social classes tend to dropout from these schools.

Certain researchers, however, maintain a different approach towards the issue. James Samuel Coleman, for instance, defines the equality of education chances as one factor of efficacy. In accordance with this, Coleman came to the conclusion that the majority of scientific investigations pays too much attention to the role of school (Coleman, 1966). It is rather problematic as the school has no significant effect on the advancement of students, which is more likely determined by the social status of the parents. I think critique shall be applied in the regard of Coleman's approach, especially when the socially selective characteristic of the Hungarian educational system is taken into consideration.

Studies on social equality and school were first launched in the 1960's in Hungary, thanks to Zsuzsa Ferge's efforts. She destroyed the myth about the social equality in Hungary. Her researches revealed that there are strata in the Hungarian society that have better chances and there are other groups that have restricted access to advancement. Everything depends on the concentration of knowledge and power (Ferge, 1980).

It shall be emphasized, however, that status due to belonging to any social classes is not static and the possibility of social mobility is overt. As for the first step, the notion of social mobility shall be defined. The explanation of the concept, however, is rather problematic as we do not possess a framework system that provides exact information about the fact that at which point we may talk about social mobility. Notwithstanding, we can define particular factors that directly or indirectly affect the process; these are the political and economic changes, individual or family events.

The interpretation of social mobility may be approached from multiple directions. On the one hand, there is an intergeneration mobility that reflects on the fact that how the individual moves in the social hierarchy compared to his or her parents. On the other hand, intrageneration mobility reveals the mobility of the individual in the career field. Most of the sociologists think that intergeneration mobility is more frequent in stable societies (Ferge, 1980).

One important distinction between intergeneration and intrageneration mobility is that the comparison of intergeneration mobility among differ-

ent countries can be measured in a more precise way. There is also the phenomenon of circular mobility when certain individuals switch their places.

It is possible to allude to the extent of the movements within the society. In accordance with this, a distinction is made between individual and collective mobility. In the case of the first, social conditions remain the same, however, in the case of the latter, these conditions are somewhat altered.

Regarding social mobility, Anikó Fehérvári draws the attention to the interpretation by Lipset and Bendix. The two researchers discussed the question of measuring mobility, that is to say, to what we compare mobility (Fehérvári, 2015). They think that social mobility shall be analyzed in time dimension or comparison as a certain society can be adequately described if it is compared to its earlier epoch or to a different country. Moreover, the scholars refer to a third alternative, the model of equal possibilities. According to this model, the ratio of mobility shall be disregarded and the inequality of possibilities leading to this road shall be taken into consideration instead.

Finally, the name of Sorokin shall not be forgotten when discussing social mobility. He thought that vertical mobility is present in all societies. The education system of the Church or military is included in the set of tools of such mobility, however, the most important one is the school. Sorokin compared school to an elevator that carries the people up and down. He emphasizes that there are societies in which the elevator starts from the very bottom, however, there are certain other societies where it starts from the middle and the people at lowest classes of society have no access to such elevator at all (Sorokin, 1998).

Moreover, school is more than an educational institution, Sorokin states, as this is the venue where the social positions are selected. In certain cases, passing exams and meeting different requirements are used to select and distribute people to future social positions. This is of high importance, Sorokin argues, because if the individual is unsuccessful in the school, s/he will less likely to find another mobility channel apart from school.

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## **MÚHELY BEMUTATÓ**



**THE CSÁTI REFI PROGRAM**

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Horváth L. (2019): The CSÁTI REFI Program. Különleges Bánásmód, 5. (1). 91. DOI 10.18458/KB.2019.1.91

Supporting gifted students has always been a high priority for our school. Our institution created a Complex Talent Care Program based on the tender EFOP-3.3.7-17-2017-00018. We received a great support from Dr. Katalin Mező, Dr. Ferenc Mező, Ferenc Sarka and Dénes Kormos in this work and in training our teachers, therefore their kind assistance is much appreciated.

The shortened name of this program is: „Csáti Refi”. The „Csáti” expression refers to the town Mezőcsát where our school is located and where this program has been established, while the name „Refi” is an abbreviation for the Reformed religion. On the other hand in Hungarian the whole expression „Csáti Refi” is an acronym which refers to the main values of the program and the students’ skills who participate in it.

Our main values are the next:

- Family (HUN: **C**salád),
- Blessing (HUN: **Á**ldás),
- Knowledge (HUN: **T**udás),
- Justice (HUN: **I**gazságosság),
- Reformed (HUN: **R**eformátus),
- Efficiency (HUN: **E**redményesség),
- Development (HUN: **F**ejlődés),
- Innovative (HUN: **I**nnovatív)

The complexity of the program is given by the fact that it was created from different subjects for grades 1-8, which guarantees talent care, guidance and talent bank for the gifted students. The aim of the program in the Reformed Primary School, Kindergarten and Nursery named after Dr. Enyedy Andor is to guarantee the unique support of the talented students and to motivate them to achieve a

high level performance and later to become successful personalities.

We create the conditions for the students to achieve significant efficiency in all fields and help to develop the characteristics of their personality.

Our Talent Care Program include the next fields:

*In the classroom:* methodological and performance improvement by individual distinction.

*Out of the classroom:*

1. Real subjects: math, informatics
2. Human subjects:
  - reading comprehension,
  - games in mother tongue,
  - tale writing,
  - history,
  - Hungarian language.
3. Skills:
  - craft,
  - art,
  - basketball,
  - football.
4. Other:
  - physics,
  - digital,
  - domestic science,
  - biology,
  - English,
  - German,
  - drama

*Out-of-school:* excursion, camping

As a part of the program in case of need we involve external training providers to support our students, their parents and our teachers. We believe that with this program we can support our students and their parents as well.