Doctoral (PhD) thesis

The Effect of the Methodological Elements of the Orff Schulwerk on the Development of Musical Skills in the Light of Elementary School Music Lessons

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The aim of the dissertation, delimitation of the topic

There are many similarities in the fundamentals of music pedagogy in the 20th century in the field of music education for children, as their development is grouped around the ideals of reform pedagogy. In a narrower sense, art pedagogy was a significant part of the pedagogical programs of the new schools appearing in the era of reform pedagogy in the 20th century, of which music education is a key element. Contrary to the authoritarian approach of the 19th century school system, reform pedagogical endeavors created their new schools in the spirit of a child-centered pedagogy based on a humanist conception. These educational institutions defined the aspirations of the reform pedagogy, with which the reform aspirations of music pedagogy, both in time and space, were manifested, and the schools of the new directive were formed. In most cases, the examples in the literature combine these aspirations with the music education ideas of Carl Orff, Émil Jacques-Dalcroze, Shinichi Suzuki and Zoltán Kodály, and the music pedagogical concepts organized around this form a significant part of the scientific research on the topic. This can be partly explained by the fact that the schools of the above four music pedagogical concepts are currently playing a leading role in both 21st century music pedagogy and music education.

The basic pillar of writing the dissertation is the initiative currently present in music pedagogy: the combination of the methodological elements of the Kodály concept and the Orff Schulwerk in classroom education. The effects of this have not yet been studied in Hungary within the framework of scientific research. For the most part in the international arena of music pedagogy, only U.S. music educators have conducted research on the Orff concept, most often mapping students' musical abilities, attitudes toward music and listening, and improvisation using standardized measurement tools (eg. Bellflower, 1968; Boras, 1988; Flohr, 1981; Glasgow, Hamreus 1968; Hensley, 1981; Hudgens, 1987; Moore, 1984; Mueller, 1993; Rohwer, 1998; Siemens, 1969; Womack, 2008; Zachopoulou, Derri, Chatzopoulou & Ellinoudis, 2003). We consider this important to emphasize because the practice of the Orff Schulwerk education in the United States is based on a slightly different pedagogical practice compared to Europe. The reason for this stems from the differences between the heterogeneous school system in Europe and the United States, as well as the different attitudes of the disseminators of the Orff Schulwerk, which can be perceived both in the past and present of the concept.

We know quite a bit about the above-mentioned 20th century alternative music pedagogical trends in the "country of Kodály", so there has been no scientific research on this

topic. The main reason for this is to be found in Hungarian education policy, as according to the National Core Curriculum, Hungarian music education is based on the Kodály concept, which has defined children's music education in Hungary for more than half a century (L. Nagy, 2004; NAT, 2012). The most basic idea of Kodály's principles is to create a general musical education through public education, which does not seem to be fully realized in Hungary based on the research of the 21st century and the feedback of music teachers. In parallel with the questioning of the standard of music education practice in Hungary, the Kodály concept, more precisely the methodology of Kodály education, has been used successfully for some time abroad. According to Dohány (2013), actors in music education are unable to find a solution to this double loss of prestige in professional forums. Nevertheless, there is quite a bit of scientific work in the field of music education research in Hungary that would outline some possible new directions at the curricular and methodological level in some way, apart from the complex exploration of current problems in music education.

The Orff Schulwerk is known only in the level of mention in Hungarian music education, its followers are only represented in small numbers, and music pedagogy pays less attention to the development of the initiative just mentioned. The aims of the research do not include placing the Kodály concept and the Orff Schulwerk on two panes of scales and contrasting them, we only want to describe one possible new directive, the applicability and real value of which can be given by the experience of educators. Due to the low number of experimental music teachers and the lack of attention to music pedagogy, there is little pedagogical practice based on experience, so we have only a little domestic literature on the topic related to the field of music pedagogy.

Regarding the Kodály concept, we have many examples in the Hungarian literature. Dissertation-level dissertations have been published with an in-depth examination of the various areas built around the concept (eg. Pethő, 2011), and a large number of publications are available in both domestic and international journals. In addition, we have all the original sources related to Kodály in our mother tongue, which is a significant advantage for Hungarian Kodály researchers in terms of scientific discourse on the international stage. Therefore, we undertake a more in-depth examination of the Orff Schulwerk, following the example of the available literature on the Kodály concept.

On the one hand, we would like to focus on the detailed exploration of the Orff Schulwerk from the historical, philosophical, theoretical and methodological aspects of education, as the Hungarian literature does not yet have a dissertation-level dissertation in this

field. The other segment of the dissertation defines a dual purpose. From a scientific point of view, comparative studies offer an ideal opportunity to advance the state of music education. The results of these can shed light on the differences between each concept, including its possible flaws, shortcomings and virtues, thus providing an opportunity to adopt and experimentally apply each methodological element. In our research, we attempt a comparative examination of the roots of the Kodály concept and the Orff Schulwerk on a theoretical level along the lines of exploring the methodology. The idea of our comparative study from a theoretical perspective was inspired by the writings that have appeared in recent decades in connection with the evaluation of the implementation of the Kodály concept in Hungary (Gönczy, 2009; Szabó, 1980; Tóth, 1996).

In the other half of the empirical phase of the dissertation, we interpret the results of a scientific pedagogical experiment designed to measure the musical ability of elementary school students. In our experiment, the methodological elements of the Orff Schulwerk were implemented as an additional curriculum for music lessons, the effect of which was monitored through the measurement of musical ability.

Research questions:

1. What effect does the integration of the methodological elements of the Orff Schulwerk into the music lesson curriculum have on children's musical abilities?
2. Does the gender of the students affect the development of skills?
3. Does the age of students affect ability development?
4. Does the family's cultural capital contribute to the development of students' musical skills and abilities?
5. Is there a correlation between attitudes about movement activities and rhythmic abilities?

Hypotheses:

H1: Improvement in the rhythmic abilities of the experimental group produces greater development over the six-month experimental period.

H2: The change in ability as a function of time does not bring about a change in the aspect of gender analysis.

H3: Older students perform better on the aptitude test than younger students.

H4: Parental education, musical education, and students’ musical motivation all have an impact on performance change.

H5: Rhythmic abilities are positively influenced by a positive attitude toward movement activities.

Outline of the used methods

Most of the comparative research conducted on the domestic and international scene was carried out at the level of concepts, thus superficial results were obtained in determining the methodological characteristics of the concepts. The Kodály concept was judged to be a "singing-based" concept in which instrument use, improvisation, and movement activity appear only to a small extent; in the case of the Orff Schulwerk, the opposite was found based on the study results (Comeau, 1995; Göktürk-Cary, 2012; Ittzés and Somorjai, 1994; Stipkovits, 2012). Our own study aimed to compare our results after analyzing the methodological implementation of the two concepts and then to determine whether they are in agreement with the findings in the literature.

We tried to explore the methodological implementation of the two concepts by analyzing the content of the writings defining the methodology of each concept, for which we chose primary sources. When defining the sources, we kept in mind that the methodological - and at the same time pedagogical - idea and intention originally conceived by the concepts should be reflected. In the case of the Kodály concept, we considered Jenő Ádám's methodological guide (Módszeres énektanítás a relatív szolmizáció alapján) to be relevant writing, while in the case of the Orff Schulwerk we analyzed the scores of Orff Schulwerk's first volume, from which we deduced the specific methodological ideas behind the exercises. The analysis was performed according to three research aspects: the use of instruments, improvisation, and movement activity. By device use we mean the use of different instruments and sound-producing gadgets. Improvisation means musical improvisation in classroom instruction, which can be both rhythmic and melodic. Movement activity is defined as a specific physical movement, so starting from the use of body instruments through musical children's games, everything can be listed here: active musical participation, where students use their bodies to experience and experience musical processes.

The other empirical phase of our dissertation was realized as a classical pedagogical experiment, which was framed by the elementary school singing and music lessons in the second semester of the 2018/19 school year. The primary population consisted of 3rd, 4th, 6th and 7th grade elementary school students on the national sample. The total number of students participating in the research is N = 562, its distribution according to the two groups:

experimental group N = 143, control group N = 419. During the survey, the subjects of the experimental group received additional curriculum compiled by the author of the dissertation. it included exercises and musical games that formed the methodology of the Orff Schulwerk. The music lessons of the control group were based on their usual curriculum.

The institutions were contacted using the contact details in the official national database (KIR). The institutions that voluntarily participated in the survey enjoyed complete anonymity in accordance with the current GDPR data management and privacy policy. For the data collection, we created a self-developed online test, which took into account the efficiency and experience of the measurement tools so far. The tests were completed in the digital space, so each of the institutions participating in the survey had to have the necessary IT infrastructure to complete the tests. The data transmission required a computer with an internet connection and a headset. The data collected by the measurement tool were organized into a database called the Orff Methodological Database 2020 (*OMA2020*).

At the beginning of the study, the musical abilities of the students in the research were assessed by completing the test we developed in order to differentiate the impact and effectiveness of the methodological elements of the Orff Schulwerk on musical abilities after the analysis of the data collected with the measure. Musical ability is the totality of cognitive processes in which the path to the brain processing of musical sequences leads through the interpretation of acoustic stimuli. In a broader sense, musical abilities include all the special abilities required to receive and interpret music and to cultivate it actively. On the other hand, in a narrower sense, only those abilities that can be directly related to musical content, such as the ability to recognize rhythm or melody, can be considered as musical abilities. In summary, the cognitive processes related to musical materials, which are mostly based on musical perception and musical memory, are called musical perceptual abilities (Asztalos & Csapó, 2015).

After the semester, the test was completed again, i.e. the change of musical abilities as a function of the elapsed time and - in the case of the experimental group - the additional curriculum was determined by post-testing. For easier access, we have made our measurement tool available in a browser-based interface. Students were able to log in and complete the test with the profile they created, so that the results of pre- and post-tests of each user could be identified with this data recording method.

Our measuring device is designed to measure the following dimensions: pitch discrimination, melody discrimination, rhythm discrimination, tempo perception. The measurement areas were determined on the basis of the task types of the music aptitude tests

still in use today. To further nuance the identifiability of ability development, we combined the results of the pitch discrimination and melody discrimination subtests to create a new scale called the melody ability scale. The scores on the rhythm discrimination and tempo perception subtests were also summed on a new scale defined as rhythmic ability.

When creating musical ability measurement items, we tried to rule out the possibility of measuring multiple skill areas within a subtest at the same time, although we can see that this is unavoidable in some cases. Each task type is closed, so each question could be answered by multiple choice. The sound samples could be started by the fillers by clicking on a speaker icon, so that each student could proceed at their own pace by completing the test. It was only possible to play all audio material once during the fill. The sound samples were generated with Finale 2014.5 and Ableton 10 software.

After logging in to take the test, we collected data on students' attitudes towards music as well as their socioeconomic status using a background questionnaire. The most important questions were: gender, age, class, singing-music grade in the previous semester, county, type of residence, parents' highest level of education, Do the parents have a musical education?, Do you usually play music or singing with your family? Do you go to music school?, How often do you listen to music?, How often do you play music?, How much do you like singing music lessons?, Do you like to dance?, Do you go to dance?

After completing the background questionnaire, they had the opportunity to try to play the audio files. The audio files for each subtest could only be played once per item. The measuring tool was designed so that the subject could only move through the items in a row, so they did not have the opportunity to repeat or skip tasks. It took less than 45 minutes to complete the test, so one lesson proved to be enough time.

List of the results

In our comparative analysis, we undertook to compare some methodological components of the Orff Schulwerk and the Kodály concept. After reviewing the relevant literature examples, we came to the conclusion that the two concepts were examined superficially, only along the principles in the public consciousness. In the case of the Orff Schulwerk, the instruments of the Orff instrumentation form the essence of instrument use. Percussion instruments, as well as violins, whistles and some other instruments suitable for playing melodies, also appear in the Kodály concept, but their use is mainly present as a means of musical illustration. Improvisation appears in several chapters in Orff Schulwerk's volume, but Jenő Ádám does

not play a role in his methodological book in the early or later stages of music education. In terms of movement activities, the methodology of the Orff Schulwerk makes great use of the possibilities offered by body instruments, but in a classroom environment, movement games are also part of everyday practice. The first three elementary school classes of the Kodály concept include movement activities related to children's games, as well as rhythmic games that mimic “work-motion” movements. Based on our comparative analysis, we can see that the stereotyped position on the Kodály concept in the literature and in the public consciousness, according to which Kodály's pedagogy suffers from a lack of active, mobile activities and the use of tools, does not fully coincide with the original methodological ideas. Contradicting the statements in the relevant literature examples on the topic, similar concepts lie in the two concepts in terms of movement activity, device use, and improvisation. It can be stated that the Kodály concept and the Orff Schulwerk define different goals in the field of children's music education, but in the beginning, they aim at experiential music education based on the same methodological elements, of which playing instruments and movement are an integral part.

In the other empirical phase of the dissertation, we examined the ability change of elementary school students involved in our pedagogical experiment. The change in ability varied according to each grade. Significant interactions between the two groups were found for three subtests, all three times in the lower grade classes. Twice of this, we saw an increase in performance in the case of pitch and melody discrimination in the third grade, and a decrease in performance in the fourth grade in terms of tempo perception. Based on our measurements, we can state that in the lower grades we can talk about the improvement of the results in terms of average scores. Our research reports on the success of the Orff Schulwerk in rhythm discrimination, as we have seen a positive change in this area in both the third and fourth grades. Thus, we found that for the younger elementary school age group, the more active, experiential musical involvement characteristic of the methodological tools of the Orff Schulwerk through musical instruments and games with body percussion is more effective. In contrast, the upper grades were more characterized by a deterioration in performance. An interesting result is that the experimental group scored lower in 20 cases on the first test, and only two subscales (third grade: rhythm discrimination and fourth grade: melody discrimination) achieved higher scores on the second test compared to the control group. Involvement in playful practices in this age group is already a less attractive pastime for adolescent learners. Thus, the development of abilities was more detectable in lower grades.

In both lower grades, we can talk about more advanced rhythmic ability in the case of girls, however, no gender difference was observed between the two measurement dates, according to which this difference showed a decrease or increase. This result is a novelty compared to the results of Hungarian research so far, as no gender differences have been identified so far.

In the next phase of the research, we used a linear regression model to explore the relationships between performance change and background variables, which were analyzed separately for the two groups. For both groups, we identified the effect of parents' educational attainment: higher educational attainment determines more positive musical performance. Although the change in ability discussed above did not yield significant results in many cases, we can see from the correlation between parents' educational attainment and musical performance that parents' education is more decisive than the school's catching-up role. Based on this, we concluded that cultural capital also has a positive effect on the development of musical skills.

The development of musical abilities was also examined in the light of musical background variables. We developed multiple stepwise regression models to determine the effect of attitudes about musical activities, musical studies, and parental musical education on musical performance. The age of the students, their motivation for music lessons, and their musical studies influenced the melody-type abilities the most. Students in the lower grades are characterized by a positive attitude in music lessons, and those in their music school are expected to have better musical abilities. In addition to the motivation of the music lessons, the love of dancing also appeared as an influencing factor for rhythmic skills. Despite the relationship between the above-mentioned, the explanatory power of the correlations was weak in all cases.

In the final phase of our survey, we used two clustering methods to explore the relationships between students' musical attitudes and changes in performance. We divided students into three clusters depending on their level of motivation towards music. We compared the clusters with the parents' educational attainment, but found no correlations. We also did not get a more nuanced picture of the change in performance.

The results of our survey on the development of students' musical abilities confirm the positive effect of the methodological elements of the Orff Schulwerk, as the rhythm discrimination ability changed positively in the third and fourth grades, so the rhythmic development effect of the Orff Schulwerk can be demonstrated during the six-month experimental period. Our hypothesis H1 was thus partially confirmed, as the supplementary

curriculum containing the methodological element of the Orff Schulwerk brought more significant skills development to the younger age group participating in the research. Based on this, it has also been proven that skill development in the lower grade age group is more dynamic, due to which short-term skill development can be more effective for younger elementary school students. This is supported by Flohr's (1981) research, where the positive effects of his short-term musical development have also been demonstrated. In the survey, although the age group was younger than our own sample, it is striking that the development of skills had a greater impact on lower grade elementary school students.

The results of our gender study show that there was a detectable difference in the lower grades comparing the results of the two groups without taking into account the time elapsed between the measurement dates: in both lower grades we can talk about more advanced rhythmic ability in the case of girls. In contrast, we did not get results between boys and girls in the change in performance between the two time points as a function of time elapsed. Based on this, we can conclude that the developmental curriculum based on the Orff Schulwerk is not related to the gender of the students, as neither the girls nor the boys produced better results comparing the results of the two measurement time points. Our present study shows a new result in the field of gender ability development compared to the research results of Janurik and Józsa (2013), where no gender differences were found in the subtests for rhythmic abilities. Asztalos's (2016) survey also found no significant correlations comparing the musical performance of boys and girls, and international aptitude tests also show no significant differences between the sexes (Janurik, 2010; Rauscher et al., 1997; Rauscher and Zupan, 2000). Thus, our hypothesis H2 was confirmed, as there was no significant change in the development of ability between the two sexes as a function of the elapsed time.

Examining the results of the ability measurement from a cross-sectional aspect, the findings in the literature so far, i.e. the parallel progress of age and ability development, were also confirmed by our own research. Thus, our hypothesis H3 was confirmed, according to which older students performed better in terms of ability measurement compared to their younger peers.

Parents' education also has the same effect in both groups. Higher levels of education are expected to lead to better outcomes. This phenomenon suggests the positive effects of cultural capital, so that cultural capital also has a positive explanatory effect on the development of musical skills. Although the six-month probationary period did not bring about a strong change in skills development, it can be concluded from the above that this

semester period was sufficient to establish that the family background plays a greater role in the catching-up role of the school. Our results are also supported by the research of Janurik and Józsa (2013), where it was also found that the children of higher-educated parents are likely to receive more support from the family for cultural enrichment and musical development. It is worth noting, however, that among the social background variables, the role of family background is relegated to the background over time (Barkóczi & Pléh, 1997) and replaced by relationships with peers and joint musical activities that have a positive effect on musical ability development (Gembris, 2006). Hypothesis H4 was only partially confirmed because parents' educational attainment and students' musical motivation have an effect on changes in musical ability, whereas parents' musical education has no influential power.

Regarding rhythmic-type abilities, music studies and the class had an impact on all three skill areas, but their order appeared differently. In terms of tempo perception, positive attitude on music lessons and "How often do you listen to music?" an explanatory variable was also included in the equation, which, although not significant ($p = .057$), also has an effect. In the rhythmic ability and rhythm discrimination subtests, it can be observed that the positive attitude on dance appeared among the background variables included in the model, but not in the case of tempo perception. Our results are consistent with the hypothesis in the literature that musical training and musical abilities are related (Asztalos, 2016; Gaab and Schlaug, 2003; Meister et al., 2005). Thus, although our hypothesis H5 can be considered partially confirmed, it is worth treating it with reservations, as the explanatory power of the models is weak.

In the light of the results, it should be noted that although the positive effects of short-term development have already been demonstrated in our own research and in other international research, there are a number of difficulties in identifying short-term skills development. Partly because of the nature of skills development, more time is needed to better identify differences over time, and partly because the involvement of survey teachers, the measurement tool, and students can be problematic. Basically, the laboratory conditions would be suitable for the lessons of the experimental group as well as for completing the tests, but we believe that in that case the measured data would not fully reflect the reality, as the everyday work in the classroom does not correspond to the laboratory conditions. Research can further pave the way for an even more nuanced picture of children's musical abilities and motivation by applying elements of the Orff Schulwerk by fine-tuning and expanding the areas measured by the instrument and continuing with a longitudinal study.

The present research has no undisguised intention to promote music education and music education research in Hungary. In addition to the evaluation and application of traditional methods, the application of newer aspects of music education, even if they show only moderate progress in the development of musical abilities, is one of the defining elements of children's musical success with the idea of active musical participation. The Orff concept is also an eclectic example of experience-based music education, which we hope may become part of Hungarian pedagogical practice in the coming times.

References in the text of the thesis

Asztalos, K., & Csapó, B. (2015). Zenei képességek online diagnosztikus mérése. In Csapó B. & Zsolnai A. (Szerk.) *Online diagnosztikus mérések az iskola kezdő szakaszában* (pp. 245–267). Budapest, OFI.

Asztalos, K. (2016). A zenei észlelési képesség szerkezete és fejlődése 5-17 éves korban – online diagnosztikus mérések óvodai és iskolai környezetben. Doktori értekezés, Szegedi Tudományegyetem. http://doktori.bibl.u-szeged.hu/id/eprint/2998/1/AsztalosKata_PhDertekezes.pdf (2021.07.27.)

Barkóczi, I. & Pléh Cs. (1977). Kodály zenei nevelési módszerének pszichológiai hatásvizsgálata. Kecskemét, Kodály Intézet.

Bellflower Symposium. (1968). *Orff Schulwerk: Design for Creativity: A report of the project "Creativity and Participation in Music Education"*. Bellflower, California: Bellflower Unified School District.

Boras, C. (1988). The Orff Schulwerk And Traditional Music Education A Comparison Of Approach. (Order No. ML45438, University of Alberta (Canada)). https://search.proquest.com/docview/89155903?accountid=15756 (2018.04.04.)

Comeau, G. (1995). Comparing Dalcroze, Orff and Kodály: Choosing your approach to teaching music. Centre franco-ontarien de ressources pédagogiques.

Dohány, G. (2013). A zenei műveltség és az ének-zene tanulásával kapcsolatos háttérváltozók összefüggéseinek empirikus vizsgálata a középiskolás tanulók körében. Disszertáció, Szegedi Egyetem.

Flohr, J. W. (1981). Short-term music instruction and young children's developmental music aptitude. *Journal of Research in Music Education*, 29, 219-223.

Gaab, N. és Schlaug, G. (2003). The effect of musicianship on pitch memory in performance matched groups. *NeuroReport*, 14, 2291-2295.

Gembris, H. (2006). The Development Of Musical Abilities. Colwell R. (Szerk.) *MENC Handbook of Music Cognition and Development* (124–164). Oxford University Press, New York.

Glasgow, R. B., & Hamreus, D. G. (1968). Study to determine the feasibility of adapting the Carl Orff approach to elementary schools in America. Monmouth, Oregon: Oregon College of education.

Göktürk-Cary, D. (2012). Kodàly and Orff: a comparison of two approaches in early music education. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 8(15), 179-194.

Gönczy, L. (2009). Kodály-koncepció: a megértés és alkalmazás nehézségei Magyarországon. In: Magyar Pedagógia, 109. 2. pp. 169–185.

Hensley, S. E. (1981). A study of the musical achievement of elementary school students taught by the Memphis City Curriculum Guide and students taught by the traditional approach. Disszertáció, Louisiana State University and Agricultural & Mechanical College. http://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=4685&context=gradschool_disstheses (2017.11.05.)

Hudgens, C. K. K. (1987). A study of the kodaly approach to music teaching and an investigation of four approaches to the teaching of selected skills in first grade music classes. Disszertáció, North Texas State University. http://digital.library.unt.edu/ark:/67531/metadc331823/m2/1/high_res_d/1002715504-Hudgens.pdf (2017.01.13.)

Ittzés, M., & Somorjai, P. (1994). Kodály és Orff, Orff és Kodály – párhuzamok és eltérések. *Parlando*, 36(1), 33.

Janurik, M. (2010). A zenei hallási képességek fejlődése és összefüggése néhány alapkészséggel. Doktori disszertáció, Szegedi Tudományegyetem. http://doktori.bibl.u-szeged.hu/id/eprint/602/1/Janurik_M_Disszert%C3%A1ci%C3%B3.pdf (2020.12.30.)

Janurik, M. & Józsa, K. (2013). A zenei képességek fejlődése 4 és 8 éves kor között. *Magyar Pedagógia*, 113(2), 75-99.

L. Nagy K., (2004). Zene „oktatás-rejtett kincs?" A tantárgyi ének-zene tanítás szakmai jelen- és jövőképe. In Döbrösy (Szerk.). Ének – zene - nevelés. Az Eötvös Lóránd Tudományegyetem Tanító- és Óvóképző Főiskolai Karának Tudományos Közleményei XXV. Budapest: Trezor Kiadó.

Meister, I., Krings, T., Foltys, H., Boroojerdi, B., Mueller, M., Töpper, R. & Thron, A. (2005). Effects of long-term practice and task complexity in musicians and nonmusicians performing cortical motor organization. *Human Brain Mapp*, 25, 345-352.

Moore, J. L. S. (1984). Rhythm and movement: An objective analysis of their association with music aptitude (Orff Schulwerk, Weikart Movement). (Order No. 8417898, The University of North Carolina at Greensboro). ProQuest Dissertations and Theses, 179. https://search.proquest.com/docview/303310046?accountid=15756 (2018.03.21.)

Mueller, A. K. (1993). The effect of movement-based instruction on the melodic perception of primary-age general music students. (Order No. 9320637, Arizona State University). ProQuest Dissertations and Theses, 197. https://search.proquest.com/docview/304047883?accountid=15756 (2018.04.05.)

Nemzeti Alaptanterv (2012). A Kormány 110/2012.(VI. 4.) Korm. rendelete. Magyar Közlöny, 66, 10635-10847.

Pethő, V. (2011). Kodály Zoltán és követői zenepedagógiájának életreform elemei. Disszertáció, Szegedi Tudományegyetem.

Rauscher, F. H., Shaw, G. L., Levin, L. J., Wright, E. L., Dennis, W. R. és Newcomb, R. L. (1997). Music training causes long-term enhancement of preschool children's spatial temporal reasoning. *Neurological Research*, 19. 2-8.

Rauscher, F. H. & Zupan, M. A. (2000). Classroom keyboar instruction improves kindergarten children's spatial-temporal performance: a field experiment. *Early Childhood Research Quarterly*, 15, 215-228

Rohwer, D. (1998). Effect of movement instruction on steady beat perception, synchronization, and performance. *Journal of Research in Music Education*, 46 (3), 414-424.

Siemens, M. T. (1969). A comparison of Orff and traditional instructional methods in music. *Journal of Research in Music Education*, 17(3), 272-285.

Stipkovits, F. (2012). Meghatározó zenepedagógiai irányzatok a 20-21. században a Kodály-koncepció és az Orff Schulwerk elemzése és összehasonlítása. *Parlando*, 54(6). http://www.parlando.hu/2012/2012-6/2012-6-04-Stipkovits4.htm (2017.09.12.)

Szabó, H. (1980). Torzulások a kodályi zenei nevelés általános iskolai alkalmazásában. Muzsika, 23. 2. sz. 1–5.

Tóth, A. (1996). A Kodály-módszer csődje a közoktatásban. Saját ballagásukon sem énekelnek a diákok. *Népszabadság*, 41(9), 1996. 07. 18.

Womack, S. (2008). A comparison of the effects of Orff Schulwerk and traditional music instruction on selected elements of music achievement in third, fourth, and fifth grade students. Disszertáció, University of Georgia. https://getd.libs.uga.edu/pdfs/womack_sara_c_200808_edd.pdf (2017.11.05.)

Zachopoulou, E., Derri, V., Chatzopoulou, D., & Ellinoudis, T. (2003). Application of Orff and Dalcroze activities in preschool children: Do they affect the level of rhythmic ability? *Physical Educator*, 60(2), 51.

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Registry number: DEENK/138/2022.PL
Subject: PhD Publication List

Candidate: Tamás Szalai
Doctoral School: Doctoral School of Human Sciences
MTMT ID: 10064414

List of publications related to the dissertation

Hungarian book chapters (2)

1. **Szalai, T.**: Alternatív zenepedagógiai irányzatok: az Orff koncepció és a Kodály koncepció módszertani implementációjának összehasonlítása az eszközhasználat vonatkozásában. In: Innováció az oktatásban. Szerk.: Polonyi Tünde, Abari Kálmán, Szabó Fruzsina, Oriold és Társai Kiadó, Budapest, 203-213, 2019, (A pszichológia gyakorlata, ISSN 2630-8207) ISBN: 9786155981098
2. **Szalai, T.**: Az Orff-koncepció szerepe a zenei nevelésben. In: Zenepedagógiai kutatások : A zeneoktatás megújuló módszertana. Szerk.: Váradi Judit, Debreceni Egyetem, Debrecen, 1-13, 2019. ISBN: 9789634902171

Foreign language Hungarian book chapters (1)

3. **Szalai, T.**: The Role of Orff Approach to Music Education. In: Studies in Music Pedagogy : The Methodological Revitalisation of Music Education. Ed.: Váradi Judit, Debreceni Egyetem, Debrecen, 1-13, 2020. ISBN: 9789634902263

Foreign language scientific articles in international journals (1)

4. **Szalai, T.**: The Orff Schulwerk: A theoretical overview. *Ad Fontes Artis. 3*, 164-174, 2018. ISSN: 2453-9694.

Hungarian conference proceedings (1)

5. **Szalai, T.**: Az éneklési képesség mérésére szolgáló kutatási eszközök áttekintése a zenepedagógiában. In: A zenepedagógia múltja, jelene és jövője : tanulmánykötet a felsőfokú zenetanárképzés 50 éves évfordulója alkalmából rendezett konferencia előadásaiból. Szerk.: Váradi Judit, Szűcs Tímea, Debreceni Egyetemi K., Debrecen, 85-96, 2018, (Oktatáskutatás a 21. században, ISSN 2559-8864 ; 7.) ISBN: 9789633187647

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List of other publications

Hungarian book chapters (2)

6. **Szalai, T.**, Mike, Á., Radócz, M.: A digitális zeneoktatás előnyei és hátrányai.
In: Az online tér megjelenése a zeneművészeti oktatásban és a hangverseny-látogatásban. Szerk.: Váradi Judit, Magyar Művészeti Akadémia Művészetelméleti és Módszertani Kutatóintézet, Budapest, 103-116, 2022. ISBN: 9786156192943

7. Bíró, I. F., Hörich, B., **Szalai, T.**: Általános iskolai tanulók kulturális fogyasztása a társadalmi státusz függvényében.
In: Művészeti körkép. Kutatás a művészeti nevelés helyzetéről és lehetőségeiről a tanórai és tanórán kívüli művészeti tevékenységről és rendezvényekről. Szerk.: Váradi Judit, Magyar Művészeti Akadémia Művészetelméleti és Módszertani Kutatóintézet, Budapest, 107-125, 2020. ISBN: 9786156192158

Hungarian scientific articles in Hungarian journals (1)

8. Váradi, J., Bíró, I. F., Hörich, B., **Szalai, T.**: Az általános iskolai tanulók kulturális fogyasztására ható tényezők vizsgálata.
Neveléstudomány. 1, 122-134, 2022. ISSN: 2063-9546.
DOI: http://dx.doi.org/10.21549/NTNY.36.2022.1.6

Foreign language scientific articles in Hungarian journals (2)

9. Héjja, B. E., **Szalai, T.**: Investigating attitudes and musical taste related to music lessons of primary school students in Debrecen.
Hung. Educ. Res. J. 9 (2), 318-331, 2019. ISSN: 2062-9605.
DOI: https://doi.org/10.1556/063.9.2019.1.27

10. **Szalai, T.**: Multicoloured music pedagogy: Studies on the role, methods and social effects of music pedagogy.
Hung. Educ. Res. J. 1, 142-145, 2019. ISSN: 2062-9605.
DOI: http://dx.doi.org/10.1556/063.9.2019.1.17

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Foreign language scientific articles in international journals (1)

11. Bíró, I. F., Hörich, B., **Szalai, T.**, Váradi, J.: The social dimensions of music education. *Studia UBB Musica. 65* (2), 37-50, 2020. ISSN: 1844-4369. DOI: http://dx.doi.org/10.24193/subbmusica.2020.2.02

The Candidate's publication data submitted to the iDEa Tudóstér have been validated by DEENK on the basis of the Journal Citation Report (Impact Factor) database.

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