

Declared and Actual Musical Competences of Future Teachers of Pre-school and Early Childhood Education in Poland

Deklarowane i rzeczywiste kompetencje przyszłych nauczycieli przedszkolnych i edukacja wczesnoszkolna w Polsce

Słowa kluczowe: kompetencje rzeczywiste, kompetencje deklarowane, przyszli nauczyciele, kompetencja muzyczna, samoocena kompetencji muzycznej.

Streszczenie: Cel. W większości przypadków procedurę badawczą i wykrywania można podzielić na dwie ścieżki. Pierwsza z nich to badania ankietowe dotyczące samooceny lub deklarowanych kompetencji muzycznych. Druga polega na przeprowadzeniu testu badawczego na temat rzeczywistych kompetencji muzycznych. Niniejszy projekt łączy te dwie ścieżki i podejmuje próbę uzupełnienia i eksploracji obszaru dotyczącego problemu deklarowanych i rzeczywistych kompetencji muzycznych przyszłych nauczycieli przedszkoli i szkół podstawowych. **Metoda.** W badaniu wzięło udział 91 studentek pedagogiki przedszkolnej i wczesnoszkolnej uczęszczających do jednego z polskich uniwersytetów. Do oceny deklarowanych kompetencji muzycznych wykorzystano autorskie narzędzie sondażu diagnostycznego oceniające przygotowanie studentek do przedszkolnych i wczesnoszkolnych zajęć muzycznych. Badacze skonstruowali autorski test kompetencji muzycznych w celu oceny rzeczywistych kompetencji muzycznych. **Wyniki.** Stwierdzono istnienie pozytywnego związku między rzeczywistym poziomem kompetencji muzycznych przyszłych nauczycieli a poziomem ich samooceny kompetencji muzycznych. Wyniki wykazały, że 55% przyszłych nauczycieli oceniło siebie nieadekwatnie. Rezultat ten sugeruje wprowadzenie dodatkowych szkoleń wspierających rozwój deklarowanych przez nauczycieli kompetencji muzycznych. Ponadto testy praktyczne dotyczące kompetencji muzycznych uczniów są ważniejsze niż ich deklarowane umiejętności oparte na samoocenie.

Keyw words: actual competencies, declared competencies, future teachers, musical competence, self-assessment of musical competence.

Abstract: Aim. The procedure for researching and detecting musical competencies most often involves two paths. The first is survey research on self-assessment or declared musical competencies. The second is a test study of actual musical competencies. The present research combines the two paths and attempts to supplement and explore the area concerning the problem of the declared and actual musical competencies of prospective kindergarten and elementary school teachers. **Method.** The study involved 91 female students of preschool and early childhood pedagogy training at one of the Polish universities. The author's original

diagnostic survey tool assessing students' preparation for preschool and early childhood music education classes was used to evaluate students' declared musical competencies. The researchers constructed an original music competence test to assess actual musical competencies. **Results.** The existence of a positive relationship between the actual level of musical competencies of future teachers and the level of their self-assessed musical competence was found. The results demonstrated that 55% of prospective teachers evaluated themselves inadequately. These findings suggest introducing additional training to support the development of teachers' declared musical competencies. Practical tests of students' musical competencies are also more important than their self-description-based declarations.

Introduction

The concept of musical competence has received many approaches in literature. As if, by definition, it implies knowledge, skills, and expertise in music and musical culture created by a triad of actors: from composers to performers to audiences. Thus, broadly defined, musical competence in the current research was narrowed down to a group of final-year students of pre-school and early childhood education. Diagnosing the musical competencies represented by teachers and teaching students is part of the tradition of locally-based research on the quality and effectiveness of professional education.

On the basis of preschool and early school pedagogy nationwide, there is a certain discrepancy between the declared importance of music in the comprehensive and harmonious development of the child and the student and the practical and real possibilities of competent application of music in the educational process by teachers (Authors, in review). In spite of the great potential of music, the musical competence is marginalized in many national as well as international documents. On the other hand, the preparation of preschool and early childhood education teachers is widely regarded as insufficient.

Declared versus actual musical competence

An analysis of the procedures of the research conducted to date in the field of musical competencies detection most often shows two paths. The first is musical competency self-assessment surveys (Begic et al., 2017; Benic et al., 2017; Đurđanović, et al., 2017; Elaldi et al., 2020; Sušić, 2018; Yücesan, 2023), which involve a declarative take on musical competencies. The second pathway is test research (Nite et al., 2015; Swaminathan et al., 2018; Wallentin et al., 2010), which involves an actual recognition of musical competencies. As Sloboda (1985) points out, the transition from declarative to procedural knowledge is critical in acquiring musical competencies, although declarative knowledge is hardly consistent with actual performance skills. The field of research seems to lack an exploration of the relationship between actual and declared musical competencies, as it requires a complex, multi-stage, and time-consuming research procedure. Similar attempts have been made

in Polish research to date (Wilk, 2004; Wilk, 2018). The present research combines the two paths and, therefore, constitutes an attempt to supplement and explore the area concerning the problem of the declared and actual musical competencies of future kindergarten and primary school early education teachers in the Polish education system.

Based on the analysis of literature and own experiences, was proposed a model of musical competences of teachers of kindergartens and grades I-III¹. Declared and Actual Musical Competences of Future Teachers of Pre-school and Early Childhood Education are divided into: 1. The substantive musical competence, which combines with the elementary preparation of the teacher to act as an audience and performer of music. 2. Methodical and pedagogical competencies is combined with the elementary preparation of the teacher to act as an organizer of the didactic process in the field of music education of children of preschool and early school age.

The Aim of Study

The study aimed to assess both the declared and actual competencies of the surveyed students as future preschool and early childhood teachers. Therefore, three research questions were posed:

1. Is there a relationship between the declared and actual levels of musical competencies of future teachers (in a general aspect)?
2. Is there a relationship between the declared and actual levels of musical competencies of future teachers (in the specific aspect)?
3. To what extent do future teachers adequately assess their musical competence?

Methodology

Participants

The selection of the respondents was guided by relevance and the respondents' availability criterion. The main group of respondents were preschool and early childhood pedagogy students at the threshold of professional careers who were finishing their bachelor's programmes and launching into professional work as teachers in kindergarten or primary schools (in the first three years of school education). The study included 105 female students completing their education in pedagogy, with a specialisation in preschool and early childhood pedagogy at one of the Polish universities. In the analysis and interpretation of the data, 91 subjects were included. They participated in all stages of the research verifying the declared and actual level of musical competencies (in terms of research into the determinants of musical competencies, their number was variable due to incomplete attendance of female respondents). The study group was feminised. The all respondents

¹ A detailed theoretical elaboration of the adopted model of teachers' musical competence can be found in... (Authors, in review).

were females and were 21–24 years old ($M = 22y$, $SD = 0.9$). 4% of the respondents declared additional education (journalism, special pedagogy, psychology). 86% of respondents received their previous music education in Polish public education in primary and middle school, while 10% received it only in primary school. 4% of respondents continued their musical education at all levels of education.

Measurements

Questionnaire surveys were carried out, through which students assessed declared musical skills and competencies, and measurement surveys in which actual musical competencies were assessed.

Diagnostic survey. The author's original survey tool – a questionnaire for graduate students preparing to teach music education in kindergarten and grades I–III – was used to examine students' self-assessments. It consisted of 93 questions on a detailed self-assessment of musical competence. The questions were closed (disjunctive cafeteria). Respondents were given a 5-point Likert scale. Examples of statements assessed: *I can sing the songs learned in class correctly and in tune; I can sing songs by ear; I can sing songs from sheet music.*

Measurement test. Due to the lack of appropriately standardised research tools and the scientific autonomy of each university centre, own tests of pedagogical students' musical competence were constructed. The maximum number of points per task varied depending on the specific range of musical material assessed. The scores obtained for the individual tasks were grouped according to the scope and distribution of the adopted musical competencies model. Five levels of musical competencies identical to the mastery of the subject area studied were determined: very high level (81–100%), high level (61–80%), average level (41–60%), low level (21–40%), very low level (0–20%). These levels were determined based on cluster analysis. The adopted percentage thresholds were consistently applied both in micro (e.g. for thematic groups of tasks, also single more complex tasks) and macro (for specific and general competencies) terms, which homogenised the results obtained and facilitated their comparison. The extensive data obtained were subjected to quantitative, statistical, and qualitative analysis.

The study was conducted in several stages in 2016 (May to June). In the first stage, the respondents completed questionnaires (the average testing time was 16 minutes); in the second stage, actual musical competencies were tested using quasi-experimental trials and included four tests: Test 1. Substantive musical competencies (written, collective test, 29 simple and complex questions, average test time was up to 30 minutes); Test 2. Substantive (perceptual-receptive) competencies (collective, auditory, written test, 19 excerpts from various musical pieces were listened to, five open-ended tasks, average test time up to 20 minutes); Test 3. Methodical and pedagogical competencies (written group test, 34 questions: closed, open-ended, simple, complex; average test time up to 20 minutes); Test 4.

Substantive competencies in music education (individual musical skills test, four practical tasks, average test time up to 20 minutes). The total average survey time per respondent was approximately 110 minutes.

The research was conducted under the Declaration of Helsinki and the ethical standards of the XXX University of XXX.

Scatter diagrams of the results were drawn up to assess the relationship between declared and actual musical competencies, and the r-Pearson correlation coefficient was calculated. Moreover, declared and actual results were compared, and it was found that self-assessment of musical competencies can have three levels: adequate – when the level of self-assessed musical competencies values is equal to the level of actual musical competencies, underrated, when the level of self-assessed musical competencies values is lower than the obtained level of actual musical competencies, or overrated, when the level of self-assessed musical competencies values is higher than the obtained level of actual musical competencies. The self-assessment questionnaire of the declared musical competencies of the subjects was completed before the tests verifying the actual musical competencies.

Results

The data in Table 1 demonstrate a moderate positive relationship ($r = .46$) between declared and actual musical competencies. This means that the higher the level of declared musical competencies, the higher the level of actual musical competencies. Detailed analyses showed a strong relationship ($r = .57$) between declared and actual musical competencies. On the other hand, there is a weak positive relationship ($r = .24$) between declared and actual musical methodical and pedagogical competencies.

Table 1. The relationship between actual and declared musical competencies of the surveyed students

Type of musical competency (actual and declarative)	Self-assessment [%]			r-Pearson's
	overrated	adequate	underrated	
Substantive musical competencies	37	57	5	0,57***
Methodical and pedagogical musical competencies	30	45	25	0,24**
Musical competencies – overall score	43	45	12	0,46***

Note: *** $p < 0,001$, ** $p < 0,05$.

The correlation analysis between the declared competencies and the measured actual substantive competencies shows a strong correlation in the areas of performance of unknown works, knowledge of musical notation and knowledge of musical principles (Table 2). A moderate positive relationship between declared and actual competencies was found in the areas of performance of known pieces, knowledge and elements of music and knowledge of composers and pieces. A weak positive relationship was also found between declared and actual competencies in

the areas of knowledge of the appliqué for the flute and keyboard, knowledge of the features of dances, and the ability to recognise them in the pieces listened to.

Table 2. The relationship between the actual and declared substantive musical competencies of the students surveyed

Categories of substantive musical competencies (declarative and actual)	Self-assessment [%]			r-Pearson's
	overrated	adequate	underrated	
Knowledge of flute and keyboard appliqué	26	29	45	.29**
Performing unknown songs	65	20	15	.52***
Performing known songs	2	22	76	.35***
Knowledge of musical notation	75	20	5	.53***
Knowledge of the principles of music	58	32	10	.47***
Knowledge of the elements of music	19	64	18	.38***
Knowledge of composers and works	42	49	9	.34**
Knowledge of and ability to distinguish dances	12	38	49	.26*
Ability to speak about music	51	48	1	.17

Note: *** $p < .001$, ** $p < .01$, * $p < .05$.

Regarding methodical and pedagogical competencies (Table 3), correlation tests showed a statistically significant moderate positive relationship between actual and declared competencies in the theoretical foundations of music education. There is also a weak, significant relationship between the declared and actual competencies of knowledge of Orff instrumentation and understanding the essence of music education. Furthermore, based on the above results, it can be seen that more statistically significant relationships exist in the substantive competencies than in the methodical and pedagogical competencies.

Furthermore, three levels of self-assessment were established based on the value of the difference obtained from comparing declared and actual competencies. The results for the adopted self-assessment classes in general and specific aspects are presented in Tables 1, 2, and 3. The results of the general assessment of musical competencies demonstrated that 45% of the surveyed future teachers assessed themselves adequately. Furthermore, we found that preschool and early childhood pedagogy students were more likely to overestimate their scores (43%) than to underestimate them (12%). The analysis of the results in terms of specific content and methodical/pedagogical competencies showed that more individuals rated themselves adequately in substantive competencies (57%) than in methodical/pedagogical competencies (45%). The strong correlation for substantive competencies and the low weak correlation for methodical and pedagogical competencies also confirms it. In the category of substantive competencies (Table 2), the future teachers performed the most adequate self-assessment in the following areas: knowledge

of the elements of music (2/3 of the respondents) and knowledge of composers and works and skilful speaking about music (1/2 of the respondents). The students had the most inflated self-assessment in the case of declarative knowledge of musical notation (3/4 of the respondents), the performance of unfamiliar pieces (2/3 of the students), or knowledge of the principles of music (1/2 of the respondents). They significantly underrated their self-assessment of substantive competencies in the knowledge of dances (half of the respondents) and performance of well-known pieces (3/4 of the respondents).

Table 3. The relationship between actual and declared musical methodical and pedagogical competencies of the respondent students

Categories of methodical and pedagogical musical competencies (declarative and actual)	Self-assessment [%]			r-Pearson's
	overrated	adequate	underrated	
Knowledge of Orff's instrumentation	46	46	8	.24*
Knowledge of the order in which musical material is introduced	47	33	20	.19
Knowledge of criteria for the selection of musical material	11	40	49	.10
Methodology for teaching flute playing	19	47	34	.09
Methodology for teaching singing	11	63	26	.17
Knowledge and understanding of the core curriculum content	37	47	15	-.01
Knowledge of musical education systems	43	37	20	.05
Knowledge of theoretical foundations of music education	25	69	5	.31**
Knowledge of musical games	13	27	59	.09
Knowledge of performing and listening repertoire	20	59	21	.19
Understanding the essence of music education	15	54	31	.27**

Note: *** $p < .001$, ** $p < .01$, * $p < .05$.

In the category of musical methodical competencies (Table 3), the future teachers rated themselves most adequately in their knowledge of the theoretical foundations of music education, the repertoire for performing and listening, and the methodology for teaching singing (about 2/3 of the respondents). Almost half of the respondents strongly overrated their skills in terms of knowledge of the Orff instrumentation or the sequence of introducing musical material. A large group of respondents (approx. 60%) underrated their musical skills in terms of knowledge

of playing or knowledge of the criteria for selecting musical material (approx. ½ of the respondents).

Discussion

The results of our study confirmed that although there is a positive relationship between the actual level of musical competencies of future preschool and early childhood pedagogy teachers and their level of musical competencies self-assessment, the ability to adequately self-assess varies, depending on the aspect of competency studied. It turned out that more than half (55%) of the Polish students could not adequately assess their musical competencies. The results of this research show a gap between the declared and actual musical competencies of future teachers. Such inconsistency within even just declared musical competencies was also shown by Croatian research (Sušić, 2018).

The results of the current study indicated that more than half of the preschool and early childhood pedagogy students rated their musical competencies inadequately, whereby they overrated their competencies more often than they underrated them. The tendency to overrate one's musical competencies is justified by psychological theories. In the light of psychology, inflating one's self-esteem is associated with the "being better than average" effect described by psychologists (Strelau & Doliński, 2008). The tendency to overrate one's musical competencies (e.g. musical ability) is also characteristic of preschool and early school teachers (Weiner, 2010; Wilk, 2018). In the light of psychological research, self-assessment, which is an exemplification of self-image, is a significant predictor of school and professional achievement (Zhao et al., 2021). It can be hypothesised that the behaviour of the respondent preschool and early childhood pedagogy female students exhibiting overrated self-assessment in professional work will be characterised by attributing to themselves more capabilities than they actually possess, which consequently leads to taking on tasks that exceed their capabilities. On the one hand, this may have a mobilising effect on the individual; on the other, it may lead to frustration and disappointment (Cisło & Lasota, 2015).

Our findings confirmed that, in terms of substantive competencies, respondents most often rated their abilities higher than actually verified. More than half of the respondents presented an inflated self-assessment in four categories. Overrating the results in terms of performing unfamiliar pieces may have been due to the mundane fact that under home conditions, they could allocate any amount of time to reading the pieces and were not operating under pressure. During the tests, time to perform the task was limited (up to 5 min). On the other hand, the reasons for the inflated self-assessment in the categories concerning musical notation and knowledge of the principles of music can be traced back to the students' unfounded knowledge, playing music mechanically or too few opportunities to verify their knowledge in class independently. The problem with insufficient knowledge of areas related to the use of music theory in practice among respondents is also

signalled by researchers from Turkey (Çelikleş et al., 2021) and is consistent with previous findings in Polish research (Wilk, 2018, Sacher, 2012). Students' underrated self-assessment was presented in three categories (knowledge of flute and keyboard appliqué, the performance of well-known pieces, and knowledge of and ability to distinguish dances by ear). The students' underrated self-assessment in performing well-known pieces may be explained by the fact that they chose to perform pieces they had mastered best, often with a low degree of difficulty. Presumably, pieces with a higher degree of difficulty could, according to the students' expectations, have been rated lower. Based on the results for this category, it can be concluded that the students were able to present their best performance and knew their strengths and limitations. From the area of pieces probably mastered at different levels, the preschool and early childhood pedagogy students most often chose the best-mastered ones, corresponding to their skills, and were thus rated highly by the researcher. Underrating their competency in this area shows that students are critical of their own skills. As Sarrazin (2016) emphasises, to work with children, it is essential to know yourself, both your strengths and your weaknesses.

Within the methodical and pedagogical competencies, four categories were dominated by inadequate ratings: overrated knowledge of the sequence of introduction of musical material, knowledge of music education systems with underrated knowledge of criteria for selection of musical material, and knowledge of games.

This study demonstrated that knowledge of music education systems (including ear training methods) was unsatisfactory. Despite implementing this type of content in university classes, the respondents had very limited knowledge and use of them. Therefore, it can be assumed that most respondents did not have adequate musical knowledge, skills, and experience. Such findings correspond with the opinion expressed by Sacher (2012). The reported deficits in the musical preparation of students and teachers of preschool and early childhood pedagogy in one of the academic centres are not only a local problem but one that is part of the national (Kisiel, 2018) and global educational dilemmas in planning and implementing optimal music education for children (Đurđanović, et al., 2017; Elaldı et al., 2020; Sušić, 2018; Welch, 2021).

Conclusion

The present study attempts to fill a research gap exploring the relationship between the declared and actual musical competencies of future preschool and primary school teachers. The demonstrated difficulties in the adequate self-assessment of musical competencies by future teachers suggest, firstly, that those who do not adequately assess their competencies will not be able to determine the direction of self-development on their own and secondly, that teachers should pay more attention to self-assessment of musical activities during music lessons. They also challenge the reliability of information about musical competencies obtained solely from the self-descriptions of future teachers. The research suggests that training

in self-assessment of musical competencies should be introduced more frequently during music lessons for teachers working in kindergarten and early school education. On the other hand, when examining the musical competencies of students, teachers should more often test their musical competencies rather than rely on their declarations obtained from questionnaires.

Developing the ability to self-assess musical competencies and actual musical competencies among teachers should start at an early age and continue throughout their teaching career. One possible solution for improving school music education is appropriate professional development guided by experienced elementary music specialists (Welch, 2021).

Many music teachers have limited opportunities to engage in professional development that sustains and enhances their skills after graduation. Professional development often focuses on pedagogy, with little attention to musical skills (Nite et al., 2015). Similar to the findings of other research (Hennessy, 2017; Russell-Bowie, 2009), our study points to the need for a higher priority and more experience in music education, especially in training teachers preparing to work with children.

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