Towards the Measuring of the Psychopedagogical and Professional Attributes of Music Education Teachers of Primary Level: Design and Validity of an Evaluation Instrument

Oswaldo Lorenzo Quiles¹, Francisco Luis Reyes², Javier Mesa¹ *Universidad de Granada, Spain*²McGill University, Canada

Abstract

The lack of standardized evaluation models for psychopedagogical professional and development that can be applied from the early stages of music teacher training, as part of their professional socialization and continuous or perennial development, elicits the need to unite these fundamental elements that make up both aspects of teachers' life and practice by seeking at the same time to elucidate the possible connections that exist between them, without losing sight of the main goal of advancing knowledge in search of educational improvement, professional education and music teaching. This paper describes the theoretical and methodological procedures undertaken for the design and development of a questionnaire intended to evaluate the psychopedagogical and professional attributes of primary-level music education teachers. The questionnaire was developed through two processes, which followed the instructions of the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education [1]. The initial phase consisted of a review of the scientific literature related to the psychopedagogical and professional characteristics of primary-level music education teachers that led to a pilot version of the questionnaire. The second phase entailed a validation process, as experts in the field evaluated the pilot questionnaire. During this phase, different quantitative analyses were applied in order to determine the final version of the designed instrument, named "Questionnaire psychopedagogical and professionals attributes of musical education teachers of primary-level education."

1. Introduction

Aspiring to know the psychopedagogical attributes related to the performance of primary-level music teachers, in terms of organizing their daily practice in the classroom and how this organization is affected by those elements that define their professional development, elicits a need endorsed by different studies germane to music education and general education [7], [13], [14], [17].

Considering the importance of understanding psychopedagogical characteristics in music teachers,

this paper describes the elaboration and validation process of a measurement tool that allows to study the psychopedagogical and professional attributes of the teaching practices of music educators. Thus, the objective of the present work is to create a measurement instrument (questionnaire) to help the related academic community carry out empirical studies on the psychopedagogical and professional attributes that characterize the teaching practices of primary music education teachers.

2. Psychopedagogy and Psychopedagogy and Music Education

Psychopedagogy is a discipline of relatively recent appearance, yet the study germane to the ways of humans learn, beave precedes the field as shown by the fields of pedagogy, experimental psychology, educational psychology, special education. psychology of education and developmental psychology. Consequently, the orientation adopted in this work on psychopedagogical development encompasses those aspects of a psychological, didactic, and pedagogical nature that define the practice that teachers develop in the classroom with their pupils. Starting from this idea, Psychopedagogy, in the context of this research is conceptualized as the pedagogical development of educators from the scope of the organization of their practice, through the pedagogical and psychological aspects on which they base their work.

Psychopedagogical development can he understood as psychological and pedagogical aspects in which the teacher's classroom practice is based. In this sense, psychopedagogical development, from teachers' point of view, comprises the result of the union between the theoretical and practical aspects derived from the professional work itself, starting from the theories that individuals create through their own practical experiences, which guide and inform professional. performances as a Psychopedagogical development, is defined by a series of in practice parameters that are placed at the same level as the programming process, since it includes designs during different stages or approaches based on a series of needs, from which some objectives arise that can be later evaluated [11].

Beyond this definition, the aforementioned authors establish the contribution to the improvement of the educational process as the ultimate purpose of this "psychopedagogical action," a recurring objective in most of the conceptions that are later proposed as methods for the improvement of educational practices and that are measured through the learning outcomes of the students. From this perspective of educational improvement, the concept of psychopedagogical intervention is understood as an educational process rather than as an element within education; it organizes the action that is going to be developed, contributes to its improvement, and, subsequently, focuses on guiding educational processes through learning strategies, motivation or meta cognition. Regarding the contribution that from psychopedagogy and its elements is produced to the teaching and learning process, and specifically to the teaching mode of action the need arises, in the search to find the elements that support this development, to explore previously those on which psychopedagogy as a discipline in itself is based, which starts from the union of psychological and pedagogical elements.

In this sense, the conclusions obtained from a study carried out by Lorenzo et al. points to three fundamental elements in relation psychopedagogical foundations of teachers in music education; the importance of psychopedagogical references as a tool that allows teachers to adapt the needs of music education with respect to the setting, justifying the needs of their area of work [15]. The knowledge revisioning carried out by music teachers and its impact on the relationship between the musical knowledge implemented with the students and different areas of knowledge, offers music education a greater interdisciplinary aspect and gives it greater representation within students' learning process. Teacher training will not consist of elements that condition educators' practice and ways of proceeding, so training and constant updating is revalued.

It is important to note that this study, which was based on the psycho-pedagogical foundations of musical education in primary school, four categories stand out among the conclusions that show different elements to highlight in the search for a psychopedagogical foundation, such as; the didactic and pedagogical foundation of the teaching staff and the relationship that this in turn has with the assessment that teachers give to elements of their professional development, such as ongoing training, or the availability of resources and materials to organize their practice; the capacity of the training in psychological aspects by the teacher, to allow the relationship of music education with other areas and disciplines, as well as to be able to use the resources that psychology can contribute to the teaching and learning process; regarding the initial training of the teacher, the study points to how this influences the way of proceeding of this in all those elements referred to methodology and evaluation, assessing the capacity of the reflective teacher as an agent of change in the educational process, and; Finally, what they call professional performance stands out, a greater consolidation by the teaching staff of a stable character in terms of psychopedagogical elements, compared to those teachers with less experience or without having a permanent position [14].

3. Professional Development

The professional identity developed by the teacher in their formative period is absolutely vital for their development within their school environment [3]. The professional identity of a teacher is developed based on the relationship of three factors: 1) Personal factor, which is based on the private life of the educator; 2) Professional factor, which speaks of the social and political expectations of what a good teacher should possess; 3) Situational factor, which is defined by the teacher's environment [5], [6]. Depending on the way these three factors interact, different professional identities will be produced. The professional identity of the teacher is affected by changes in national and local policies regarding education [8].

Beijaard et al. understands that the professional identity of teachers is characterized by four aspects: 1) It is a continuous process of interpretation and reinterpretation of experiences that can be seen as a process parallel to the development of the teacher, taking into account that the development of this It never ceases and can be seen as one that unfolds throughout your career; 2) The professional identity of a teacher is acquired in the context in which it operates. There is no professional identity transferable to all educators, but rather they develop it within the workplace; 3) The identity of the teacher is composed of sub Identities, some of which influence his identity more directly than others; 4) The diligence that he has to improve his professional development is vital in the identity of a teacher. This process is in line with the constructivist vision of learning, which establishes that learning occurs through the activity of the learner

Focusing on one of the most classical perspectives, professional development of educators can be defined as the search for change, both in teachers' perception and in their beliefs and culture, since instructors act, train and develop based on these three elements. These changes are linked to the demand for a renewal of teachers' work, as well as their profession, and training [9], [10].

According Montecinos [16] the professional development of teachers encompasses the formal and informal areas in which educators are trained to develop new teaching practices, while reflecting on their own profession, professional activity and their setting. Therefore, the processes for this purpose are of a diverse nature [16]. This author fosters

development through cooperative teacher training, measured by improving student results based on their needs, in such a way that they raise the concept of organizations that learn.

Hardy points out that current policies for teacher professional development must consider three main factors: 1) Treat different current approaches based on the knowledge of teachers; 2) focus on the environment and situations of the school reality, and 3) know the real needs of students [12]. Cardona understands professional development as the process of renewal and continuous review, to be updated in order to improve the professional skills of all teachers, which has a direct impact on improving the education of students. The main objectives of any teacher training program lie in this improvement, both the teachers themselves and the education they impart [4]. For this reason, this author conceives the purposes of teacher professional development through a series of fundamental lines: The development of both personal and professional qualities, the improvement of the teaching and learning process, and the general improvement of the educational institution.

4. Purpose of the Study

The present study is linked to understanding the psychopedagogical development of music educators of elementary level, in terms of organization of their daily classroom practice and how it influences or in what way it is affected by those elements that define their professional development. Therefore, the development of a measurement tool that contains both elements, psychopedagogical development and professional development, is proposed, so that through a questionnaire information can be obtained, through response questions with a Likert-type scale, on the form in which teachers develop their classroom work, psychopedagogical development, and the elements of their professional development, in order, once the data is obtained, to analyze whether or not there is a direct relationship between both variables, as well as the degree of influence they have between they.

5. Method

The designed questionnaire has gone through two phases of construction, both within the guidelines of the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education [1] for designing instruments that measure educational phenomena. The first task was to search and review electronic databases in the scientific literature related to the object of study and analysis, linking the two categories of study of the questionnaire

(psychopedagogical and professional attributes) with the variables of analysis. As a result of it, a pilot version of the questionnaire was designed (See Table 1).

The next task was to subject the pilot questionnaire to a content validity test by expert judgment, in which 15 judges participated—eight of them international university experts in music education and in research methodology in education and social sciences, and seven teachers of musical education in primary schools. After reviewing the qualitative content made by the experts, a statistical analysis of the items was carried out, following the criteria established by Barbero, Vila and Suarez [2]. This analysis contributed to determine the definitive list of items of the questionnaire: Each item has a mean value equal to or greater than 2.5, will take its value from the value of its median, will have values greater than or equal to 2.5, for the 50th percentile, and the dispersion among the judges' assessments could not be very high. If the difference between the 75th percentile and the 25th percentile was equal to or greater than 2, the item was eliminated; between 1 and 2 the item was revised and modified; and between 0 and 1 was accepted and modified slightly if necessary. Furthermore, the diverse comments offered by the judges germane to redaction and formulation of items were considered (see Table 2).

6. Objective of the Study

The fundamental objective of this research was to Create a measurement instrument (questionnaire) that allows an empirical study to be carried out to respond, in future continuity work, to the objectives set out here. This tool would then allow – to Distinguish, from a theoretical point of view, the main psychopedagogical characteristics that govern the practice of the teacher of Music Education in the Primary stage for the autonomous community of Andalusia. Analyze the relationship between the organization of teaching practice and the different elements of professional development of the specialist teacher in Music Education.

7. Instrument

Finally, the instrument conformed in the present work has been titled "Questionnaire on psychopedagogical and professionals attributes of musical education teachers of primary-level education." The final questionnaire includes twenty-two questions that are grouped into three categories: Personal data, psychopedagogical and professional attributes. The questionnaire is based on the Likert scale of 1 to 5 where: 1 = Never; 2 = Almost never; 3 = Sometimes; 4 = Almost always and 5 = Always.

Table 1. Structure of the questionnaire

Categories	Analyzed variable	Item (Likert Scale 1-5)	Based on
Psycopedagogical attributes	Psychological Foundation	I consider the level of psychological development of my students, when it comes to setting objectives, content, activities, materials, resources, and methodologies. I conceive assessment as a holistic process of learning and development. I am aware of the different evolutions of psychological theories and apply them to my teaching practice. I apply psychological knowledge to my practice.	Hargreaves et al. [13]
Pedagogical Foundation		I employ different theoretical didactical models in the classroom. I cooperate with the other fellow colleagues, actively involving myself in the school-environment. I update my pedagogical practice in terms of new theories, procedures, methodologies and resources. I base my teaching practice in the so-called active methodologies of musical education.	Hemsy [18]
Musical Foundation		I apply different pedagogical models to my lesson plan, selecting the most appropriate for each moment or situation. I conceive musical education as a nexus subjects, and as a	Hargreaves et al. [19] Lorenzo and Herrera [14]

	fundamental part of the development of the student. -My level of knowledge and musical training actively favors my classroom work. My work in the classroom is oriented to instill musical skills in students from a practical point of view while using the theoretical aspects as a medium and not as an end in themselves.	
Perspective on owns preservice training	I undergo through a process of constant self-evaluation, reflecting on different aspects and elements of my educational practice. I update my work based on the results obtained by students.	Guskey [20]
	I use various sources of information to measure the effectiveness of my work. My pre-service training corresponds to the real needs of educational practice.	

Categories	Analyzed variable	Item (Likert Scale 1-5)	Based on
Professional attributes	Permanent Formation	The current offer of permanent training seems adjusted to my needs and compliments dearth in my training as a professional educator. I consider lifelong learning as a constant process that can provide me with the necessary knowledge to develop and improve my teaching.	Barraza [21] Desimone [22]

	To what extent the lessons I have received through my ongoing training have a direct impact on my classroom practice I consider lifelong learning as a constant process that can provide me with the necessary knowledge to develop and improve my teaching. To what extent the lessons I have received through my ongoing training have a direct impact on my classroom practice.	
Mentorship	I consider the suggestions received by peers as fundamental, especially in the early years of professional development. During the professional initiation I have learned to adapt to the profession through my colleagues.	Herrera et al. [23] Velaz de Medrano [24]
Professional networking	Working cooperatively with other teachers has a beneficial effect on my professional practice. I value the exchange of experiences and knowledge with other teachers in a positive way for the learning of my students.	Hord [25] Stoll et al. [26]
Professional development	I seek to be constantly up to date in relation to resources, materials, technologies, novel practices, and repertoire. I value the continuous professional development as the best resource to adapt my practice to each context.	Amaro, Cádenas Altuve [27] Marcelo [28] Darling-Hammond [29], Evetts [30] Tenti [31]

Professionalisation	My pedagogical practice helps give musical education a greater relevance both at the school environment (parents, peers, students) and in society (my immediate environment, and society in general).	Darling-Hammond [29] Evetts [30] Tenti [31]
	I value my practice in the classroom, as a necessary, useful and representative process, as well as an essential element in the training of students. -My profession makes me feel content, fulfilled, and a better person.	

Table 2. Frequencies, mean, standard deviation, median, 25th to 75th percentiles and decisions taken on the validity of questionnaire content

ITEMS	SCALE		Average	Standard		
	1	2	3	4	_	Deviation
Stats	0	1	7	6	3.36	.633
1	0	1	1	13	3.80	.561
2	0	0	4	10	3.71	.469
3	0	4	4	7	3.20	.862
4	0	3	3	9	3.40	.828
5	1	3	3	8	3.20	1.014
6	0	1	2	12	3.73	.594
7	0	2	2	11	3.60	.737
8	0	0	4	11	3.73	.458
9	0	1	3	11	3.67	.617
10	0	1	2	12	3.73	.594
11	0	1	2	12	3.73	.594
12	0	2	3	10	3.60	.632
13	0	0	3	12	3.80	.414
14	0	0	4	10	3.71	.469
15	1	3	5	6	3.07	.961
16	1	1	2	11	3.53	.915
17	1	0	4	10	3.53	.834
18	1	1	2	11	3.53	.915
19	0	1	2	12	3.73	.594
20	1	1	2	11	3.53	.915
21	3	2	2	8	3.00	1.254
22	1	2	5	7	3.20	0.941
23	2	1	3	9	3.27	1.100

24 25					3.73 3.60	.594 .910
26	_	_	_		3.73	.458
27	0	0	4	11	3.73	.458
28	0	2	1	12	3.67	.724
29	1	2	3	9	3.33	.976
30	0	2	2	10	3.60	.737

00 00 00 00
00
00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
.00
00
.00

The first category focuses on teacher's personal information, such as gender, age, type of work center, province, position, functions in the school, years of experience, time since last training, training, music training or other training you may have. The category of psychopedagogical characteristics comprises a series of elements related to psychological, pedagogical and musical aspects, and the way in which they are organized in the classroom by each

teacher. The category of professional factors presents aspects about professional development of the teacher, as an element of measurement of the psychopedagogical foundations and in close relation with personal data.

The scientific literature consulted reveals a dearth of work focused on the knowledge of the elements of a psychopedagogical type that underlie the professional work of the primary-level music teacher.

Furthermore, the scientific literature consulted reveals a lack of work focused on the psychopedagogical aspects that underlie the professional work of the teacher of music education in primary education, as opposed to the extensive literature on teachers in general.

The application of the questionnaire proposed here will allow, among other benefits, studies to determine possible models about the psychopedagogical development that governs the professional practices of music teachers in primary-level education, which provides a way of obtaining analysis data that contributes to the evaluation of the quality of teaching practices. In addition, the questionnaire will allow establishing diagnoses that lead to the implementation of mechanisms for improvement in professional development, by providing an initial knowledge that can eventually be shared by the international community interested in this subject.

8. Conclusions

The scientific literature consulted reveals a dearth of work focused on the knowledge of the elements of psychopedagogical type that underlie the professional work of the teacher of music education in primary-level education, as opposed to the extensive literature on teachers in general. Furthermore, the scientific literature consulted reveals a lack of work focused on the psychopedagogical aspects that underlie the professional work of the teacher of music education in primary education, as opposed to the extensive literature on teachers in general. The application of the questionnaire proposed here will allow, among other benefits, studies to determine possible models about the psychopedagogical development that governs the professional practices of music teachers in primary-level education, which provides a way of obtaining analysis data that contributes to the evaluation of the quality of teaching practices. In addition, the questionnaire will allow establishing diagnoses that lead to the implementation of mechanisms for improvement in professional development, providing an initial knowledge that can eventually be shared by the international community interested in this subject.

9. References

- [1] American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education, *Standards for Educational and Psychological Testing*, American Educational Research Association, Washington DC, 2014.
- [2] M.I. Barbero, E. Vila, and J.C. Suárez, *Psicometría*, Universidad Nacional de Educación a Distancia, Madrid, 2003.

- [3] D. Beijaard, C. Meijer, and N. Verloop (2004). Reconsidering research on teachers' personal identity. *Teaching and Teacher Education*, 20, 2004, pp. 107-128.
- [4] J. Cardona, El centro de secundaria como ecosistema de formación permanente del profesorado. En A. Medina, A. Hernán y C. Sánchez (Eds.), *Formación pedagógica y práctica del profesorado*, Cerasa, Madrid, 2011.
- [5] E. Canrinus, M. Helms-Lorenz, D. Beijaard, J. Buitink, and A. Hofman, "Profiling teachers' sense of profesional identity", *Educational Studies*, *37*(5), 593-608. DOI: 10.1080/03055698.210.539857, 2011, pp. 593-608.
- [6] C. Day, P. Stobart, A. Sammons, Q. Kingston, and R. Gu, Teachers matter: Connecting lives, work and unstable identities, McGraw Hill, Maidenhead, 2007.
- [7] L. Evans, "Professionalism, Professionality and the development of education professionals", *British Journal of Educational Studies* 56(1), 2008, pp. 20-38.
- [8] C. Fuller, A. Goodwyn, and E. Francis-Brophy, "Advanced skills teachers: professional identity and status", *Teachers and Teaching: Theory and Practice*, 19(4),.doi: 10.1080/13540602.2013.770228b, 2013, pp. 463-474
- [9] L. Evans. "The 'shape' of teacher professionalism in England: Professional standards, performance management, professional development and the changes proposed in the 2010 White Paper", *British Educational Research Journal* 37(5), Wiley Online Library, United Kingdom, 2011, pp. 851-870.
- [10] S. Hallam, P. Burnard, A. Robertson, C. Saleh, V. Davies, L. Rogers, & D. Kokatsaki, "Trainee primary-school teachers' perceptions of their effectiveness in teaching music", *Music Education Research*, *11*(2), doi: 10.1080/14613800902924508, 2009, pp. 221-240.
- [11] G.C. Henao, L.A. Ramirez, and C. Ramirez, "Qué es la intervención psicopedagógica: Definición, principiosy componentes," *Agora 10*, 6(2), 2006, pp. 215-226.
- [12] I. Hardy. "Teacher Professional Development: A Sociological Study of Senior Educators' PD Priorities in Ontario", *Canadian Journal of Education 32*(3), Canadian Society for the Study of Education, Ontario (Canada), 2009, pp. 509-532.
- [13] D. J. Hargreaves, N. A. Marshall and A. C. North, "Music education in the twenty-first century: a psychological perspective", *British journal of music education 20(2)*, Cambridge University, United Kingdom, 2003, pp. 147-163.
- [14] O. Lorenzo, O. et al. (2001). Fundamentos Psicopedagógicos de construcción de la didáctica musical utilizados por el profesorado de educación musical en primaria en Melilla. In *Actas de las Jornadas de Intercambio de Experiencias Educativas*. Facultad de Educación y Humanidades de Melilla, Universidad de Granada.
- [15] O. Lorenzo, et al. (2003). La Fundamentación Psicopedagógica de construcción de la Didáctica Musical

- empleada por los docentes de Educación Musical en Educación Secundaria en Melilla. In *Actas de las II Jornadas de Intercambio de Experiencias Educativas*. Facultad de Educación y Humanidades de Melilla, Universidad de Granada.
- [16] C. Montecinos, C. (2003). Desarrollo profesional docente y aprendizaje colectivo. *Psicoperspectivas, revista de la escuela de psicología facultad de filosofía y educación pontificiauniversidad católica de Valparaíso II*, 105-128. Recuperado de http://www.psicoperspectivas.cl/index.php/psicoperspectivas/article/viewFile/6/6
- [17] J.L.S. Moore, "Assessment of a Professional Development Programme for Music Educators", Music Education Research 11(3), Taylor & Francis, United Kingdom, 2009, pp. 319-333.
- [18] V. Hemsy, "La Educación Musical en el Siglo XX", *Revista Musical Chilena*, 58(201). doi: 10.4067/S071627902004020100004, 2004, pp. 74-81.
- [19] D. Hargreaves, R.M. Purves, G.F. Welch, and N.A. Marshall, "Developing Identities and Attitudes in Musicians and Classroom Music Teachers", *British Journal of Educational Psychology* 77(3),. doi: 10.1348/000709906X154676, 2007, pp. 665–682.
- [20] T. Guskey, "Professional Development and Teacher Change", *Teachers And Teaching: Theory and Practice*, 8(3), 381-391. doi: 10.1080/135406002100000512, 2002, pp. 381-391.
- [21] A. Barraza, "Necesidades formativas en estudios de postgrado de los maestros de educación básica. Universidad Pedagógica de Durango. No 2, noviembre." Presented at the *Segundo Congreso Regional de Investigación Educativa*. Durango, México, 2003.
- [22] L.M. Desimone, "Improving Impact Studies of Teachers' Professional Development: Toward Better Conceptualizations and Measures", *Educational Researcher*, 38(3), 2009, pp. 181-199.
- [23] L. Herrera, A.M. Fernández, K. Caballero, and J.M. Trujillo, "Competencias docentes del profesorado novel participante en un proyecto de mentorización. Implicaciones para el desarrollo profesional universitario", *Profesorado, revista de currículum y formación del profesorado, 15*(3), 2011, pp. 213-241.
- [24] C. Velaz de Medrano, "Competencias del profesor mentor para el acompañamiento al profesorado principiante", *Profesorado, Revista de currículum y formación del profesorado, 13*(1), 2009.
- [25] S.M. Hord, "Learn in community with others", *Journal of Staff Development*, 28(3), 2007, pp. 39-41.
- [26] L. Stoll, R. Bolam, A. Mcmahon, M. Wallace, M. and S. Tomas, (2006). "Professional Learning Communities: A Review of the Literature", *Journal of Educational Change*, 7, doi: 10.1007/s10833-006-0001-8, 2006, pp. 221–258 [27] R. Amaro, M. Cadenas, and J. Altuve, (2008). "Diagnóstico de los factores asociados a la práctica

- pedagógica desde la perspectiva del docente y los estudiantes", *Revista de Pedagogía*, 29(85), 2013, pp. 215-244
- [28] C. Marcelo, "Las Tecnologías para la Innovación Y La Práctica Docente. Revista Brasileira de Educação,18(52), 2013, pp. 25-47.
- [29] L. Darling-Hammond, and J. Bensford, *Preparing Teachers for a Changing World: What teachers should learn and be able to do.* Hoboken, New Jersey, Jossey-Bass/Wiley, 2005.
- [30] J. Evetts, "A New Professionalism? Challenges and Opportunities", *Current Sociology*, *59*(4) doi: 10.1177/0011392111402585, 2011, pp. 406-422
- [31] E. Tenti, "Profesionalización de los Docentes. Algunas Dimensiones de las Representaciones y Temas de la Agenda Política", *Revista PRELAC: Educación Para Todos*, 2004, pp. 85-103.