

Topic: Pedagogical content knowledge of experienced Dutch preschool music teachers on the teaching and learning of music

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This research proposal explores the possibility of (1) refining and adjusting the concept of pedagogical content knowledge (PCK) for music teachers; (2) mapping PCK of improvisation, and rhythm, metre and tempo; and (3) comparing the PCK of music teachers to theoretical knowledge.

Relevance of this research

- Contributing to the definition of the nature and content of PCK of music teachers;
- Making PCK more explicit to enhance the professionalising of music teachers (Ross Hookey, 2002);
- Contributing research results to the improvement of music education for young children.

1. Pedagogical content knowledge

In the mid-eighties Schulman proposed a framework for the professional knowledge base for teacher education that reflected various types of knowledge (Gess-Newsome, 1999). According to Schulman, there was a type of knowledge that up till that time had largely been unidentified but should be part of that framework, namely *pedagogical content knowledge* (PCK). PCK is about teachers' knowledge on how to transform certain subject matters for teaching and learning (Park & Oliver, 2008). PCK is often described as a type of knowledge that is developed through (reflection on) practice, that is (partly) context dependent, personal to some extent and implicit to a certain degree (De Vries, 2004; Baxter & Lederman, 1999; Duling, 1992).

Since the introduction of the concept of PCK, an underlying assumption has been that mapping PCK could give entry points for the improvement of teaching and learning in certain subject areas (Hill, Ball & Schilling, 2008). Although seen as a useful concept, up to date PCK is still poorly defined. Authors tend to interpret the *content* and *nature* of PCK differently, and thus have engendered a 'variety of meanings' (Park & Oliver, 2007, p. 262). This has also partly resulted in measuring and examining PCK in diverse ways which, for example, has complicated the process of building on earlier research (Baxter & Lederman, 1999). This begs the question if the concept of PCK could be defined more precisely in general, and for music teachers specifically.

2. Mapping PCK of key topics within a subject area in a particular context

Normally, research on PCK focuses on how teachers make key topics within a subject area accessible for teaching and learning in a particular context (Ball, Thames, Phelps, 2008). I therefore choose to research PCK in (1) the context of the Dutch preschool, on (2) improvisation and (3) a sense of rhythm, metre and tempo:

- (1) *Preschool*. Up to now there is relatively little research on early childhood music education (Young, 2009). Researching the PCK of music teachers could contribute to the development of theories on the teaching and learning of music in the preschool that are closely tied to practice;
- (2) *Improvisation*. Improvisation is a complex concept, but for the sake of this proposal the definition of the Grove Music Online will be used: 'Improvisation is the spontaneous creation of music as it is performed. It may involve the immediate composition of an entire work by its performers, or the elaboration or other variation of an existing framework, or anything in between' (www.oxfordmusiconline.com). In the literature different reasons are mentioned why improvisation should be a key topic of a music curriculum. For example, improvisation can provide children a way of bringing in their own world of music and creating music in interaction with others that is personally meaningful (Campbell, 2004; Frowijn & Tomassen, 2007). In the Netherlands, improvisation is not an activity central to the preschool music curriculum (Haanstra, 2001). Mapping the PCK of preschool music teachers on improvisation could contribute to a better understanding of teaching and learning improvisation for preschoolers;
- (3) *A sense of rhythm, metre and tempo*. 'Rhythm', 'metre' and 'tempo' are concepts that cannot be easily defined (Mazokopaki & Kugiumtzakis, 2009). For the sake of this proposal, a sense of metre may refer to the way in which listeners, performers etc can group pulses together on the basis of the perceived strong and weak pulses in rhythm patterns (Honing, 2011). Rhythm may refer to the way that certain pulses are shortened or lengthened (Osborne, 2009). Tempo may refer to the pace of a piece of music (Honing,

2011). Developing a sense of (the interrelated concepts) metre, rhythm and tempo can be seen as key topics in the teaching and learning of music in general (Campbell, 2004; Wiggins, 2001). A sense of rhythm, metre and tempo can allow for group members within a musical activity to coordinate one's musical behaviour *in time* with those of others (Cross & Morley, 2009). For example, improvisation and a sense of rhythm, metre and tempo can be closely linked to each other. Even though developing a sense of metre, rhythm and tempo are seen as key topics in the teaching and learning of music, to date there is little research in this respect in the Netherlands.

3. PCK and theoretical knowledge on teaching and learning

In the past decade, researchers have come to realise that formal educational theories on teaching and learning can differ from what teachers think and do in practice (Hanley, 1993). In other words, PCK seems to differ from theoretical knowledge on teaching and learning. This difference is often referred to in literature as 'the gap' between theory and practice (Cultuurnetwerk, 2008). If PCK does differ, it would be worthwhile to discuss if PCK should be part of the knowledge base in for example teacher-education.

4. Research scope

a. Research questions

- What is the PCK of experienced Dutch music teachers on the teaching and learning of improvisation of preschool children?
- To what extent can differences be found between the PCK of the experienced Dutch music teachers and theoretical knowledge on the teaching and learning of improvisation of preschool children?
- What is the PCK of experienced Dutch music teachers on the teaching and learning of a sense of rhythm, metre and tempo of preschool children?
- To what extent can differences be found between the PCK of the experienced Dutch music teachers and theoretical knowledge on the teaching and learning of a sense of rhythm, metre and tempo for preschool children?

b. The theoretical framework

1. Historical background of PCK, (critically) reviewing different concepts and models of PCK, refining and adjusting the concept of PCK for music teachers, what is problematic about researching PCK, what is relevant about researching PCK, ideas about the status of practical knowledge in relation to theoretical knowledge;
2. Defining the (related) concepts of rhythm, metre and tempo. (Critically) reviewing different concepts and models on the teaching and learning of rhythm, metre and tempo. Relating theoretical views to content categories of PCK;
3. Defining the concept of improvisation. (Critically) reviewing different concepts and models on the teaching and learning of improvisation. Relating theoretical views to content categories PCK.

c. Research design

The research will be qualitative research (multiple case studies), as PCK is defined to be (partly) context dependent and is therefore researched within a naturalistic context. The research instruments for mapping PCK would be: interviews and stimulated recall interviews. One could however question if solely interviews and stimulated recall interviews can map the PCK of specifically music teachers. Jorgensen (2003) for example describes that musical ideas can be caught and transmitted in *physical* ways; content and pedagogy could therefore (partly) coincide (Westerlund & Juntunen, 2005). One could question if music teachers develop *embodied* knowledge on teaching and learning music. Part of the research will therefore be about refining and adjusting the concept of PCK for specifically music teachers and developing a third instrument that catches the embodied PCK of these teachers. This third instrument will be piloted.

The respondents taking part in this research will consist of fifteen Dutch music teachers. These respondents have to meet the following criteria:

- Preschool music teachers with a music teacher qualification;
- Experienced teachers, with a minimum of 5 years of teaching. Teacher practices tend to undergo the greatest changes in the first three years, with stabilization of teaching practices between the third and fourth year (Gess-Newsome, 1999);
- Music teachers who teach preschool children weekly, with a minimum of half an hour;

- Music teachers who design their own preschool curriculum on improvisation *and* on developing a sense of rhythm, metre and tempo

d. Analysis of the data

- *Transcribing and categorising the data:* The interviews and stimulated recalls interviews will both be transcribed verbatim and separately analysed on the basis of partially set categories that have been extracted from the content categories of a model of PCK (this research has an exploratory element so it will leave space for defining new categories). A third instrument will be developed to map the embodied aspect of PCK of the teachers.
- *Triangulation and validation of the data:* Per teacher the information of the interviews, stimulated recall interviews and a third instrument will be triangulated and on the basis of this information a portrait will be written that represents the PCK of a music teacher. These portraits will be sent back to the music teachers for communicative validation.
- *Interpretation of the data:* The first step will be to interpret the data, concentrating on the differences and agreements between teachers on the two different topics.
- *Comparing to theoretical views:* PCK of the music teachers and theoretical views will be compared.

Literature

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