Introduction

This article addresses the issue of Pedagogical Content Knowledge (PCK) in music teacher education. The inquiry that this article refers to was carried out among student music teachers in three countries: Brazil, Canada and Sweden. All of the participants were enrolled in programs of teacher certification. Our key interest, as professors in music teacher education programs, was to investigate the responses of the participants to a video of a grade one music class and their music teacher. The purpose of carrying out a cross-cultural study was to examine whether a general understanding of PCK in music education could be identified.

Teachers’ professional knowledge

The knowledge base that underpins teaching has been the subject of numerous studies in the areas of teacher education and the teaching profession. According to Tardif (2002) the term ‘knowledge base’ can be understood in two ways: in a narrower sense it refers to the knowledge mobilized during teachers’ actions in the classroom; in a broader sense it refers to the sets of knowledge underlying the act of teaching in the school environment. This diversity of knowledge has been analyzed by several authors using different classifications or typologies. Tardif’s (2002) review showed that cognitive or theoretical criteria change from typology to typology, as some of them are based on epistemological principles (Shulman 1986; Martin 1993; Gauthier et al. 1997), others on research lines (Martin 1993; Raymond 1993; Gauthier et al. 1997), others on social phenomena (Bourdoncle 1994) or on ideal models (Paguay 1993).

The types of knowledge needed for teaching were classified by Shulman (1987) in seven categories that define the knowledge base for teaching: content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners, knowledge of educational contexts and knowledge of educational ends. He introduced the term Pedagogical Content Knowledge (PCK) to refer to “the distinctive bodies of knowledge for teaching” (Shulman 1987, 8). According to Shulman, these are the bodies of knowledge that distinguish the teaching profession from other professions. PCK is defined as that part of teachers’ professional knowledge that “goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching” (Shulman 1986, 9). Shulman makes a distinction between content and pedagogy, content being related to three
kinds of knowledge: content knowledge, curricular knowledge and pedagogical content knowledge, and pedagogy as the set of procedures employed by teachers to achieve their goals within their educational interactions with pupils.

Content knowledge refers to the breadth and depth of subject matter information the teacher has accumulated as a resource and to his/her understanding of "why a given topic is particularly central to a discipline whereas another may be somewhat peripheral" (Shulman 1986, 9); curricular knowledge refers to the teacher's ability to develop programs on a given topic according to the level of the pupils and the instructional materials available; pedagogical content knowledge refers to the transformation of content knowledge in a manner understandable to pupils.

There are some examples of research in music education that examined PCK: Ballantyne and Packer (2004) identified the knowledge and skills that early-career secondary music teachers perceived to be necessary to function effectively in the classroom. In the second stage of the study Ballantyne (2006) explored early-career music teachers' perceptions of the effectiveness of their preservice programs. The findings revealed that pedagogical content knowledge and skills and professional knowledge and skills "are the areas that are seen to be directly contextualized to their experiences as music teachers" (Ballantyne 2006, 46).

Jorquera (2008) investigated four Spanish teachers' views of professional knowledge. Analysis of the interview transcripts yielded insight into the teachers' views on subject matter, music learning theories, curriculum and relations among educational and social systems. Campbell and Burdell (1996) compared the conceptions of knowledge and teaching practice between students in music education and elementary education. Their analysis revealed an interesting difference: while the music education students emphasized the development of students' musicianship, the education students emphasized the importance of being a role model for their students. The analysis suggested that these differences were manifested in the participants' conceptions of teacher identity, teacher function, and teacher role.

The present article focuses on PCK as defined by Shulman (1987), particularly as it relates to the teacher's pedagogical approach, the children's engagement, and the children's musical abilities, as identified by student music teachers in three countries who watched a video of a complete music lesson with a grade one class. Thus, the overarching objective of this study was to discover which components of PCK the participating student music teachers would identify, as well as to consider whether there might be a general understanding of PCK among the participants regardless of linguistic, cultural and educational contexts.

Teachers in classrooms

Generally speaking, pedagogy is made concrete through teaching, and teaching through human interaction. Tardif (2002) lists some features of this interaction: a) teaching and learning processes do not exist without pedagogy; b) materials and teaching strategies are part of education, but are not its entirety; c) the role of the teacher is to present the subject matter in such a way that it is adapted and understood; d) the teacher must have the ability to create something new from his/her previous knowledge, e) the teacher's work is guided by the human-relations environment as well as the purposes and values that guide the teaching. The work at school and in classrooms can thus be analyzed in various ways, but for the purposes of this article only the dimension of the action of teachers in classrooms will be addressed.

In the field of music education Barrett (1996) discusses a model of learning by drawing a parallel between music and language. The author defines six stages: immersion, demonstration, engagement, expectations, responsibility, approximation and response—that are related to musical learning experiences in the classroom. Hallam (2001) highlights the diversity and complexity of learning in music, stressing aspects such as characteristics of pupils, learning environment, relationship and teacher-pupil interaction, educational goals
and processes to learn music. Finally, Merrion (1996) and Russell (2000; 2005) emphasize important factors about class management to be considered by music teachers, including content choices, sequence of presentation, transitions, and pace of instruction.

Drawing a parallel between what Shulman (1987) and Tardif (2002) state—about the subject being taught, and teaching and human interactions—and the music education authors’ discussions mentioned above, it is apparent that many concepts, ideas and conceptions about the action of teachers in classroom, irrespective of subject matter, are very similar.

The research context

The research reported in this article explored the perceptions of student music teachers from Brazil, Canada and Sweden concerning the pedagogical content knowledge of a specialist music teacher as a phenomenon understood across these three countries.

We three researchers, experienced as musicians, music educators, and music teacher educators, conducted this study. Together we have extensive classroom experiences from our three countries, as well as international teaching experience, which guided us in the interpretation of the teacher-child interaction shown in the video presented to the participants, as well as in our first-hand interaction with the participants before, during—and after—their viewing of the video. Thus, we were familiar with the educational and cultural contexts of our participants.

The study took as a point of departure Russell’s (2000; 2005) case study of a 30-minute grade one music lesson. The lesson, captured on videotape, was given by a Canadian music teacher who was highly appreciated for her expertise by the student music teachers who had worked with her during their field experiences. Russell’s investigation examined music classroom management from the perspectives of structure, content, and pace of teaching as contextual factors. Russell’s findings suggested that the subject matter, the pupils’ characteristics, the teacher’s instructional choices and socio-cultural factors are fundamental to an effective classroom management strategy.

For several years Russell (2000; 2005) had used the video with preservice teachers as a pedagogical tool for discussions around teachers’ professional knowledge-in-action (Schön 1983), and had already collected student teachers’ written responses to the video. The primary objective in the present study was to show the video to student music teachers from Brazil, Canada and Sweden and obtain their responses to find out if there might be a general understanding of PCK among the participants regardless of linguistic, cultural and educational contexts.

Method

In this phase of the study we began with a broad look at the student music teachers’ responses to the classroom interactions between a professional music teacher and her grade one students. It was not our original intent to focus on differences or similarities in the responses between or within the three countries but rather to see what insights the exercise would yield. (Comparisons attributable to cultural, social, institutional differences would be a different type of study.) The focus of the inquiry became more clearly defined as we studied the transcribed comments more closely, conferenced online and furthered our discussions in person in Montréal. We sought an organizing framework that responded to the data we were examining. In this recursive process it became clear that what the participants were identifying was pedagogical content knowledge as defined by Shulman. PCK was a good ‘fit’. Ultimately, the analysis revealed that the responses to the teacher’s actions appeared to be similar, regardless of the country of origin.
The participants

82 Brazilian, Canadian and Swedish student music teachers took part in the study. All were registered in programs leading to music teacher certification in their respective countries. While female and male students participated we did not separate the responses according to gender as gender difference was not part of our research purpose.

In Brazil 23 student music teachers between the ages of 20 and 24 participated. They were registered in Didactic of Music, a course which was offered to students in the second year of the Music Teaching Program and focused on the delivery of lessons and the teaching process.

In Canada 19 student music teachers between the ages of 20 and 29 participated. They were registered in a professional seminar, which was a required course in the Bachelor of Education in Music, and they were enrolled concurrently in a 10-day field experience with a professional music teacher in an elementary classroom. The professional seminar addressed a range of pedagogical issues arising from their field experiences.

In Sweden 40 student music teachers between the ages of 20 and 30 participated. They were enrolled in an elective music pedagogy course which was part of their Music Teacher Education Program.

The number of participants from each country reflects the relative size of the classes to which we had access. It should be noted here that in our three contexts the size of music teacher education classes is constrained by a range of social policies. A summary of information about the country, number of participating students, the contexts of the courses in which the video responses were gathered, and the year in which the responses were collected is presented in Table 1.

<table>
<thead>
<tr>
<th>Country</th>
<th>No. of participants</th>
<th>Course context</th>
<th>Year of collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil (B)</td>
<td>23</td>
<td>Didactics of Music</td>
<td>2006</td>
</tr>
<tr>
<td>Canada (C)</td>
<td>19</td>
<td>Professional Seminar</td>
<td>2006</td>
</tr>
<tr>
<td>Sweden (S)</td>
<td>40</td>
<td>Music Pedagogy</td>
<td>2008</td>
</tr>
</tbody>
</table>

Table 1. Country, number of participants, course context, and year of data collection

Methodological procedures

The same procedures were applied in all three teaching contexts. The student music teachers watched an uninterrupted 30-minute video of a complete music lesson in a Canadian grade one class which was held near the end of the children’s school year. 22 children, six and seven years of age, participated in 13 distinct, but related musical activities. The lesson was organized around thematic links and it was clear from the children's level of participation that most of the materials and activities were familiar to them. Some new materials, activities and configurations were introduced, which expanded upon the familiar materials.

The principal activities in the lesson were singing, gesturing, clapping and dancing, which reinforced musical concepts. The teacher introduced notation of patterns previously experienced through the use of icons and symbols which the children clapped and manipulated physically, and she encouraged the children's aural memory through pitch matching. The teacher used a variety of spatial configurations, such as moving physically from sitting in a circle with the children, to the piano, to the blackboard and then again to the children sitting or standing in a cluster. Fuller details of this lesson are related in Russell (2000; 2005). Russell’s analysis of the content of the lesson is displayed in Appendix A, Table 1: Details of Betty-Jo’s Grade One Lesson (Russell, p. 11). Categories are: materials used, task description, participants, purpose of the task and the conceptual/thematic links from task to task.
The participants in the present study watched the video once, as a class, and wrote their observations freely during the viewing. Our aim was to capture their immediate responses to the teacher’s approaches, and so the students were asked to jot down their observations of the music class as the lesson unfolded. They were asked to do this in a descriptive and reflective way and were advised that the purpose of the exercise was not to evaluate the teacher’s work, but rather to provide an opportunity to observe a professional teacher giving a lesson in an authentic classroom.

After watching the video, they were given time, in class, to finish their writing. Class discussion ensued only after the written responses were handed in, however we did not record or collect the contents of these discussions. The participants were encouraged to give themselves pseudonyms, which guaranteed them anonymity. They were informed that their participation was voluntary and their responses were not subject to assessment and grading. This exercise generated the student music teachers’ initial responses, conceptualized as typical of the experience of the teaching professional’s reflection-in-action, at the moment of its occurrence. The responses obtained in this way were stream-of-consciousness, raw, and unedited; the authors translated the responses into English, being careful to preserve authenticity. English-language responses are presented verbatim.

Analysis of data

The data were analyzed around three pillars of music teachers’ professional content knowledge: the teacher’s pedagogical approach, the children’s engagement, and the children’s musical abilities. These categories are derived from Shulman’s (1986) and Tardif’s (2002) conceptions of knowledge in teaching and Russell’s (2000; 2005), Ballantyne and Packer’s (2004) and Ballantyne’s (2006) previous research in the area of music education. A description of these categories and their application as an interpretive tool follows.

The teacher’s pedagogical approach: Shulman (1986) conceptualizes the teaching approach as “the ways of representing and formulating the subject that make it comprehensible to others” (Shulman 1986, 9). This is what he refers to as pedagogical knowledge, which is partner to the knowledge of subject matter—the knowledge needed for teaching. Pedagogical knowledge refers to a teacher’s ability to make use of a variety of instructional strategies, and includes the ways in which the grade one teacher conveys lesson content in response to the different learning styles and abilities of her students.

The children’s engagement refers to the ways in which children participate. Focus is on the teacher-student relationship, especially how the teacher engages the children in the various classroom activities. In this category we include the teacher’s classroom management techniques and strategies, including her timing, her choices of repertoire, activities and tasks as well as how she uses her energy and skill to move through the lesson.

The children’s musical abilities: this category refers to the teacher’s approach towards the development of her student’s musical abilities during the lesson, and includes the ways in which she responds to their actions and efforts with direction and feedback during and after the performance of activities in the classroom.

Findings

The student music teachers’ perceptions of pedagogical content knowledge are presented here in their ‘voices’ by means of selected data excerpts. These excerpts are core elements in a narrative of the student music teachers’ responses, which are framed with observations, questions, reflections, alternative explanations, and references to relevant literature.

Key: (B) = Brazil; (S) = Sweden; (C) = Canada
The teacher's pedagogical approach

We found that the responses of the student music teachers of all three countries were similar. They noted especially the variety of activities developed during the 30-minute music lesson and how the teacher addressed various musical concepts. The data excerpts presented below were selected to illustrate the student music teachers responses to the didactic approaches and instructional materials the teacher used to explain and/or demonstrate musical concepts.

The method of the teacher also seems very effective and with great incorporation of the children, approaching the same topic in different ways, creating a very consistent energy, working with the blackboard, with sticks, with body expression (B).

MIXES all forms of learning together: singing, building patterns, dancing. Ties everything into one big piece [unity] (C).

Good ideas from the teacher to illustrate high and low notes with hands, singing and imitating the length of notes, etc. The teacher incorporates music theory and ear training in games. Dance, hand claps, small sticks are transformed to notes, singing and movements. Well constructed and organized lesson. The teacher finishes the lesson by including all the various parts they have been practising during class (S).

The student music teachers noted the importance of adapting the content knowledge to the children's level, organizing the children to use it, and modifying and/or creating appropriate materials attendant to its use. Through observing the teacher's and children's behaviours during the lesson the student music teachers perceived how the teacher connected theory and practice and how she contextualized the content of teaching for her students.

The teacher uses multiple ways of explaining to children (S).

Many ways to see if they [children] understood the concept (C).

In one activity the children sing and dance to music, beating the rhythm and accompanying with choreography (B).

The importance of choosing adequate materials for every specific group (S).

The teaching skills mentioned by the student music teachers are associated with various knowledge domains focusing, primarily, on pedagogical knowledge—which may be understood as 'action in the classroom', and content knowledge—which may be understood as 'theoretical knowledge'. These two bodies of knowledge are considered to be acquired and accessible during student music teachers' higher education. As Borger and Tillema (1993) point out, student teachers who have acquired the requisite theoretical knowledge for teaching do not necessarily use such knowledge in their practice. The early-career music teachers who participated in Ballantine's (2006) study expressed “disillusionment” with the “compartmentalisation or separation of the education and music subjects in the preservice degree” (Ballatyne 2006, 41); they believed that content and pedagogy should be linked. This issue was highlighted by the student music teachers who watched the video of the Canadian teacher.

To my understanding this lesson was very comprehensive, involving theory and practice in a dynamic set. It seemed to make total sense to the children (B).
[The teacher] was able to teach very complex music theory to young kids (C).
Active music learning (body vs mind) (C).

The teacher incorporates music theory and ear training in the games. Dance, hand claps, small sticks are transformed to notes, singing and movements (S).

These student music teachers demonstrated a certain joy and surprise in seeing the possibility of teaching musical concepts through practice. They found that the children could learn music theory - for example, symbolic representation of rhythm patterns, by making music. Perhaps their surprise was due to the fact that they themselves had learned music theory in a different way, or perhaps due to a belief that young children could not grasp the relations between notation and sound. Or perhaps their learning of musical concepts may have been separated from practice. These possible interpretations are questions for future research and have implications for music education practices.

The children’s engagement

Concepts of discipline and behaviour, authority and attendant activities are generally understood and practiced in relation to children’s level of engagement in the classroom. Fairness builds trust and consequently a good relationship between teacher and children, and a certain sense of security within the classroom. Hallam (2001) confirms that “the nature of the interactions between pupils and teachers are particularly influenced by the extent to which pupils are successful in their learning” (Hallam 2001, 69). Some of these professional concepts are echoed in the following response:

Kids very well behaved. She [the teacher] must have instilled a very disciplined classroom atmosphere from the start. The children all seem like they want to be there and to learn. The teacher makes it a fun activity and very educational, but the kids feel like they’re having fun (C).

Often, the concept of authority is confused with authoritarianism, that is, one must be authoritarian to achieve order and discipline or, to use Merrion’s (1996) metaphor, “come into the classroom with an iron fist” (Merrion 1996, 189). Current educational thinking deplores authoritarianism, and few would defend it. Rather, democratic and educative attitudes are typically encouraged. The student music teachers carefully observed the attitude of the Canadian teacher pointing out that:

The teacher had total control of the class with no effort, exercised by development and security and not by pressure (B).

The students enjoy themselves. Playful atmosphere (S).

Another way to ensure the discipline of the group is to provide varied and significant activities in order to keep the students engaged. Many of the student music teachers observed that the music lesson was fast-paced, and dynamic and they noted that the children seemed to enjoy the activities and repertoire. From the many interesting responses we chose those we consider most representative:

The class is very dynamic. The activities are flowing without interruption hindering the disruption of the attention of children. The method is very consistent, relating the music content with children’s daily life elements. The class is really a lesson in music (B).
Classroom management is approached almost musically. There is little time in between activities/tasks for kids to be distracted. The pace was used as a management tool (C).

Both teacher and students seem to be participating with a sense of engagement and energy. The teacher gives the impression that she is experienced and used to the situation. The teacher is skillful and does not get distracted. Without any problem [she] keeps a fast tempo with lots of instructions (S).

On the face of it, it is feasible to say that the music class was entirely directed by the teacher. She seems to have followed a strict plan without giving much space for children, as pointed out by some Swedish student music teachers: "Students seem to want to go beyond activities"; "No time for breaks. Teacher acts like a 'steamroller'. Feels like you are holding your breath during the class;" “there was action all the time”. Some questioned whether it might be too much action, expressing concern that the children were not given any time to think or to express themselves spontaneously.

When the student music teachers wrote about the children's participation in music class they noted the importance of involving children in attractive and challenging musical experiences, mentioning specifically: how the teacher leads the class, changing activities with frequency and maintaining a great level of interaction with the children; the positive role of the teacher in the classroom; and the teacher's apparent knowledge about each child in the group. In the Ballantyne & Packer study (2004) the task of engaging students with music in a meaningful way was one of the items the teachers identified as ‘very important’ in the category of PCK and skills, and central to the teaching and learning process.

**The children's musical abilities**

In the course of the activities in the music classroom it is important that children receive feedback from the teacher concerning their actions and efforts. This feedback can be in the form of comments or praise, an invitation to repeat a particular action, positive and negative reinforcements related to the activities performed, to mention a few. Barrett (1996) stresses that “children need to perceive that the skills and understandings that they are trying to master are valuable, relevant, functional and useful” (Barrett 1996, 68).

The participating student music teachers observed that the Canadian teacher used various resources to respond to the children's performances during the music lesson. She frequently used the expression “good for you” to encourage the children's efforts. Other positive expressions were also used. One Swedish student music teacher noticed for instance that: “[the] teacher gives direct comments like 'good', or 'nearly right.'” The student music teachers noticed that the teacher interacted with the children to help them to improve their musical skills and understandings:

Standing activity: quick organization. All students participate. Everyone waits for their turn. Students easily copy what's on the board. The teacher helps the students with difficulties (B).

When students could not match pitch exactly the teacher raised or lowered her own pitch, and if they followed the direction she considered it a success (C).

All children are encouraged by the teacher even though some children are 'better' in these activities than the others (S).

A fundamental issue during the learning and teaching processes in the classroom is the teacher's ability to identify problems, and to find appropriate strategies to solve problems
(Tardif 2002; Shulman 1987). The participating student music teachers noticed that the Canadian teacher handled the problem of pitch-matching by working with the children at the children's level. A Brazilian student music teacher wrote: "the teacher seemed to detect the problems of the students and worked with them. Like the girl who sang the interval of a third in a too high key".

The student music teachers considered this attitude of responsibility for the development of children's musical skills to be clearly recognizable in the actions of the Canadian teacher: "the teacher is always conscious of what the students are doing. This is very noticeable on the video", as stated by a Canadian student music teacher.

Many factors influence the learning processes of children in classroom situations. The three fundamental and intrinsic, although not exclusive, aspects of PCK—the teacher's pedagogical approach, the children's engagement, and the children's musical abilities—were identified, described and analyzed by the student music teachers from a professional perspective, explaining the teacher's effectiveness by the fact that she is a professional, experienced teacher:

- The teacher shows that she has enough experience to present the information in a practical context (B).
- The teacher is a good pedagogue and one notices that she has a lot of teaching experience (S).

These observations suggest that the student music teachers believed in classroom experience as a major success factor in teaching. That no student mentioned academic training as a factor may suggest that the number of years of work experience seem to be understood of paramount importance. In these responses the teacher's competence was attributable solely to her professional experience.

**Discussion and Reflections**

This inquiry sought first of all to explore student music teachers’ perceptions of a Canadian music teacher's pedagogical content knowledge in action. Through an analysis of 82 written responses to a video of a Grade One music class the study aimed to discover which components of PCK the participating student music teachers would identify, as well as to consider whether there might be a general understanding of PCK among the participants regardless of linguistic, cultural and educational contexts.

Though the student music teachers are in three different countries, they responded to the video in a similar manner. It was not our chief objective in this article to focus on the comparative aspects of the study. Rather, we chose to analyze the responses of the three groups of students in order to find out if a general understanding of pedagogical and musical content knowledge would emerge.

In addition, although we specifically explained to the participating student music teachers that we were not asking them to evaluate the teacher’s behaviours many of them attributed a value to the teacher’s competence. The consensus was that they had watched a “good” music class. They pointed out the quality of the lesson from various perspectives, including aspects of what could be defined as the teacher’s PCK, which is the central theme of this article. The student music teachers identified, described and analyzed aspects of the teacher's pedagogical approach, the children's engagement, and the children's musical abilities.

Regarding the teaching approach, the student music teachers lauded the Canadian music teacher’s use of a variety of ways to present the same musical concepts, using different instructional materials and a variety of practical applications and, in the process, creating an
enjoyable, safe learning environment. These aspects of PCK can also be found in both Shulman’s (1987) and Tardif’s (2002) works, for instance.

The relationship between theory and practice was identified as a vital part of the lesson wherein the children experienced musical concepts through making music. The student music teachers pointed out that a music class for six- and seven-year-old children can include theoretical aspects when it is based on multiple, practical, engaging activities.

Regarding the children’s engagement, the student music teachers were unanimous in agreeing that the teacher had effective control of the class. On the one hand, they pointed out that the children were ‘well behaved’, attributing their behaviour to the teacher’s use of various strategies to maintain discipline. They maintained that the teacher’s positive attitude towards the children provided safety and a sense of well-being in the classroom. They also noted the sequence of a large number of activities presented in a short time-frame, a strategy which encouraged engagement. On the other hand, on this last point we found some differences in the responses of the three student music teacher groups. Only Swedish student music teachers—a few—felt that the children had no time to act on their own or to process what they were doing. The class, they felt, was entirely directed by the teacher. We speculate as to whether this response may be attributable to differences in educational culture. We also point out that the method we used to collect the data precluded the possibility of obtaining a more nuanced, thought-full view of the teacher’s actions through class discussion, provision of the lesson’s contextual factors, alternative explanations and so on.

Another important aspect of PCK is the feedback that teachers give to children during the performance of the activities. The student music teachers identified a number of moments during the class when the teacher praised the performance of the children and at the same time helped the children with difficulties in some tasks. Likewise, the student music teachers discovered that the teacher identified problems and worked with the children to find solutions. They pointed out that the teacher was constantly attentive to the performance of her students during the class.

Conclusions

The present study addressed selected elements of Shulman’s (1987) construct of pedagogical content knowledge in the context of teaching-in-action. The findings revealed commonalities in the responses of 82 pre-service student music teachers’ perceptions of PCK in terms of their ability to identify and interpret aspects of PCK in a music classroom regardless of language, culture and country of origin. The findings support Shulman’s argument that PCK is definable, identifiable professional knowledge that is specific to the teaching profession and yields to systematic observation and analysis.

Teachers’ professional knowledge is of fundamental importance in teacher education whether the teachers are pre-service, initial, continuing or specialists. Hitherto, music teachers’ professional knowledge has not been well explored; further research, particularly cross-cultural research has much to contribute to music teacher education and professional development. In spite of the importance of PCK in music classrooms, which the present study has addressed, relatively few studies have been published. The use of videos of actual teachers in natural situations has the potential to be an invaluable tool for drawing student teachers’ attention to the subtle aspects of teachers’ professional knowledge as it unfolds.

The Canadian teacher in this study was identified by student music teachers enrolled in a Canadian music education program as an outstanding professional practitioner; for this reason Russell (2000; 2005) recorded her teaching on video, analyzed the teacher’s grade one lesson and published her findings. Most of the 82 participants in this study also adjudged the teacher to possess admirable expertise in the three categories described above, and praised her as an excellent educator.
This inquiry provided evidence that aspects of music teachers’ professional content knowledge are recognizable even for viewers whose mother tongue is not the language of the teacher—in this case, English. This leads us to conclude that the participants took into account the behaviors and actions of the teacher much more than the teacher’s verbal language to identify and interpret different aspects of pedagogical and musical knowledge. We therefore propose that there is a general understanding that pertains across the three cultures represented here, where the educational systems were shaped by western ideas.

However, we question whether recognition of PCK in action might be considered a universal response across all cultures or whether Shulman’s definition of PCK is culture specific and, if so, what are the aspects of a cultural entity that enable such recognition? We find these questions an interesting starting point for future studies.

References


Musiikinopettajiksi opiskelevien näkemyksiä toiminnallisesta pedagogisesta sisältötiedosta: kolmen maan tutkimus


Asiasanat: professionaalinen tieto, musiikinopetus, korkea-asteen koulutus

Abstrakti

Musiikinopettajiksi opiskelevien näkemyksiä toiminnallisesta pedagogisesta sisältötiedosta: kolmen maan tutkimus


Asiasanat: professionaalinen tieto, musiikinopetus, korkea-asteen koulutus