Special Issue
The Orff approach to special music education and music therapy:
Practice, theory and research

Students with Special Needs in the 21st Century Music Classroom: Practices and Perceptions of Orff- and Non-Orff Trained Educators

Lori Gooding, Michael Hudson & Olivia Yinger

Abstract

Students with special needs are increasingly incorporated into the music classroom, yet research suggests music educators feel unsupported and inadequately prepared for work with students who have special needs. The current study investigated music educators' experience with and perceptions of students with special needs in the music classroom. A total of 99 participants enrolled in graduate level Orff-Schulwerk and non-Orff-Schulwerk courses answered 26 questions on (a) experiences with special learners in the music classroom, (b) teaching practices, and (c) perceptions regarding special learners in the music classroom. Results suggest that the only factor that significantly impacted feelings of preparation to teach special learners in the music classroom was the number of music-specific courses taken related to teaching special learners. The only demographic variable predictive of teachers' use of multimodal activities in the classroom was the level of Orff training. This suggests that coursework on teaching special learners in the music classroom may contribute to teachers' feelings of preparation and that the multi-sensory nature of the Orff approach has practical applications for teaching students with disabilities. Future studies should explore other factors that may impact teacher perceptions and practices when working with students with special needs.

Keywords: special learners; Orff; music; perceptions; teacher training

Lori Gooding, PhD, MT-BC, earned her doctoral degree from Florida State University and joined the University of Kentucky as the Director of Music Therapy in July 2010. There she established the graduate academic program in music therapy, as well as the clinical music therapy program at the University of Kentucky UK HealthCare. She is actively involved in music therapy research, earning a grant from the National Institute on Aging in 2011 and from AARP (formerly the American Association of Retired Persons) in 2012. Dr. Gooding currently serves as President-Elect for the Southeastern Region of the American Music Therapy Association and is a member of the *Journal of Music Therapy* editorial board.

Email: lori.gooding@uky.edu

Michael Hudson is Assistant Professor of Music Education at the University of Kentucky School of Music. Prior to earning his Ph.D. from Florida State University, Dr. Hudson taught high school bands and orchestras in the Brevard County Public School System in Florida. His duties at the University of Kentucky include teaching undergraduate courses in instrumental methods, conducting, behaviour modification and introduction to music education. Dr. Hudson has presented his research findings at regional, national and international conferences and serves as research coordinator for the Kentucky Music Educators Association. His research interests include sociology in music education, music perception, and music performance skills.

Email: Michael.hudson@uky.edu

Olivia Swedberg Yinger is Assistant Professor of Music Therapy at the University of Kentucky. Dr. Yinger previously coordinated the Tallahassee Memorial HealthCare/Florida State University Music Therapy and Arts in Medicine Program, as well as the National Institute for Infant and Child Medical Music Therapy. Dr. Yinger currently serves as a Fellow of the National Institute for Infant and Child Medical Music Therapy and presents and publishes at a regional, national, and international level. Her primary research interests are procedural support music therapy, neonatal and paediatric music therapy, and music therapy for individuals with neurological disorders.

Email: Olivia.yinger@uky.edu

ISSN: 1791-9622

Although a growing number of students with special needs are being included in music classrooms, the literature suggests that many music educators feel unprepared to teach students with special needs (Hourigan 2007; Wilson & McCrary 1996). In fact, music educators, when surveyed, often state concerns about integrating exceptional learners into the classroom, citing less than adequate training and limited contact (Heller 1994; Hourigan 2007; Kaiser & Johnson 2000). Though the concerns of music educators are not new, recent research appears to provide continued support for such concerns. According to a 2010 study, only 29.6% of higher education institutions required a course in teaching music to special populations (Salvador 2010). Likewise, Colwell and Thompson (2000) found that over a quarter of schools surveyed did not even offer a required or elective course in special education. Given that the research suggests that practical experience with students with special needs directly affects music educators' confidence (Hourigan 2007), the issue of students with special needs in the music classroom warrants further research.

In 1975, the United States Congress passed PL94-42, a law that allowed children ages 3-21 improved opportunities in public education. This law has since been renamed the Individuals with Disabilities Education Act (IDEA; Hammel & Hourigan 2011). Since the implementation of PL94-42, music teachers have been challenged to find effective ways in mainstreaming students with special needs in the music classroom. Even ten years after the implementation of PL94-142, music educators felt that they were still inadequately prepared to work with students with special needs and received little support from their administration (Gfeller & Darrow 1987). Three years later, a study by Gfeller, Darrow and Hedden (1990) examined the practices of mainstreaming students with disabilities in the music classrooms of schools in Iowa and Kansas. The findings of the study were similar to findings in previous research that indicated teachers continued to feel under prepared in working with mainstreamed students and that there is a perception of difficulty of incorporating students with certain special needs into the music classroom.

The practice of mainstreaming students with special needs into the music classroom has prompted the addition of several publications to the literature that include suggestions and effective strategies (Adamek 2001; Hammel 2004; McCord & Watts 2006; Hammel & Hourigan 2011). Strategies such as continuous dialogue between teacher, administration and counsellor have been suggested as highly effective in understanding a student's Individual Education Program (IEP), an educational plan which is required for all students with disabilities in the United States. The goal of the IEP is to assist teachers in implementing individualised learning goals and objectives that best meet the needs of the student. The adaption of alternative materials and the creation of alternative goals have also been suggested as effective ways in serving the needs of special learners in the music classroom (Adamek 2001).

Prior to entering the teaching field, pre-service music teachers can gain a better understanding of working with students with special needs through observation experiences. The field observations provide an opportunity for pre-service music teachers to experience several varied classroom situations with a wide range of student populations including students with special needs. In a 2009 case study, Hourigan sought to learn about what pre-service music teachers valued in learning to work with students with special needs. A detailed orientation process prior to working with children with special needs provided the pre-service teachers with a foundation of what to expect and how to work with students with special needs. Observation and keeping a journal of classroom experiences were also found to be very valuable in preparing pre-service teachers for working with students with special needs. Educational supports can serve as effective tools for pre-service teachers in adapting music lessons in order to best meet the needs of students with various types of learning styles and disabilities. Whipple and Van Wheelden (2012) found that after a five week filed experience, pre-service music teachers' incorporation of the use of educational supports such as color-coding, written word, icons, echoing and the buddy system with students with special needs proved to be helpful teaching aids in general music classes.

Examining students' attitudes regarding the inclusion of students with special needs and students without special needs into the music classroom has been an area of past research interest. Johnson and Darrow (1997) examined the attitudinal statements of elementary, middle and high school band students on the integration of students with special needs in the ensemble. Participants who received treatment of a 30-minute video presentation showing students with special needs participating in a band class had significantly more positive attitudes than those who did not receive the thirty-minute video presentation. Differences in the attitudes of music students from the USA and Italy toward special needs students in the music classroom were also investigated by Johnson and Darrow (2003). The study found that there was little difference between the attitudes of students from Italy and the USA toward students with special needs in the music classroom. Responses to the questionnaire revealed that both

ISSN: 1791-9622

Italian and American students had similar feelings about students with special needs. Further analysis revealed that female respondents demonstrated an attitude of acceptance more than male respondents.

Social and academic behaviours are a continued area of research interest with special needs student populations. Jellison (2002) examined the relationship between proximity and on/off task behaviours in an inclusive music classroom environment. Results showed that typically developing students exhibited more on- task behaviours when they were not in close proximity to students with special needs. This suggests that creating a social environment in which students with special needs are mainstreamed in the music classroom can present certain challenges, but a proactive attitude and careful planning can make it a less daunting task (Hammel & Hourigan 2011). It also suggests that it cannot be assumed that an inclusive classroom will be free from any negative social interactions. The possibility for positive social interactions will largely be dependent on how the method of instruction from the teacher is structured (Jellison, Brooks & Huck 1984).

The purpose of the present study was to investigate music educators' teaching practices with and perception of students with special needs in the music education classroom. More specifically, this study examined differences in experiences and perceptions among individuals with and without Orff-Schulwerk training.

Method

Participants

Music educators (N = 99) enrolled in graduate level music education courses at two large south-eastern universities were recruited to participate in this project. Courses were selected based on music education content; individuals in both Orff-based (n = 74) and non-Orff based (n = 25) courses participated. All participants were at least 21 years of age and had completed a minimum of a bachelor's degree prior to participation.

Materials and procedure

A researcher-created survey containing 26 questions related to (a) participant demographics, (b) experiences with special learners in the music classroom, (c) teaching strategies, and (d) teacher perceptions was given in paper format to participants. Participants were asked to provide information using closed-ended responses, Likert-type questions, and open-ended responses. The Likert-type scale used in the survey asked participants to circle one number (1 to 5) for each question, using the anchors never (1), rarely (2), occasionally (3), frequently (4), or always (5).

After approval by the Institutional Review Board, a committee who oversees all research involving human subjects, the researchers contacted graduate instructors of Orff- and non-Orff courses in order to gain permission to recruit students as participants. A total of four instructors gave permission. Students enrolled in those courses were then approached to participate during regularly scheduled course meetings. The researchers were not instructors in any of the courses, and participation was voluntary.

After a brief explanation, individuals were given the opportunity to complete the survey. Survey completion took approximately 10 minutes. Once completed, participants placed the surveys in a manila envelope, which was collected once all individuals had completed the survey. No identifying data was collected in order to maintain confidentiality.

Data from the 26-question survey were analysed descriptively, and correlations were run using SPSS 20. Open-ended responses were examined for thematic content and grouped into categories by one of the researchers. A second researcher then reviewed the groupings; any discrepancies were re-evaluated by both researchers until categorical agreement was met.

Results

Demographic information (Questions 1 to 7)

Demographic information regarding the participants (N = 99) is shown in Tables 1 to 6. The majority (65%) of participants had a bachelor's degree (Question 1) and 33% had one to four years of teaching experience (Question 2). Most teachers (52%) reported having taken one general education class about teaching special learners (Question 3), and 58% reported having taken no music-specific classes about working with special learners (Question 4). Of the 99 participants, 74 (75%) had completed at least one level of Orff training, while 12 (12%) had completed some level of Kodaly training, three (3%)had completed some level of Dalcroze training, and one (1%) had completed some level of Gordon music learning theory training (Question 5). The majority of participants reported that they taught elementary school general music (Questions 6 and 7).

ISSN: 1791-9622

Level of Education	No. of responses	%
Some college	0	0%
Bachelor's	60	65%
Master's	13	14%
Rank I[1]	2	2%
PhD	17	19%

Table 1: Level of education

Years of teaching experience	Number of responses	%
0 years	16	16%
1-4 years	33	33%
5-9 years	23	23%
10-14 years	14	14%
15 or more years	13	13%

Table 2: Years of teaching experience

No. of classes	General		Music-specific	
	No. of responses	%	No. of responses	%
0	16	16%	57	58%
1	51	52%	25	25%
2	20	20%	12	12%
3 or more	12	12%	5	5%

Table 3: Number of special learners' classes taken

Additional training completed	No. of responses	%
Dalcroze	3	3%
Level 1	0	0%
Level 2	2	2%
Gordon	1	1%
Kodaly	12	12%
Level 1	3	3%
Level 2	0	0%
Level 3	5	5%
Orff	74	75%
Level 1	29	29%
Level 2	15	15%
Level 3	30	30%
None	31	31%

Table 4: Music trainings completed

Age group taught	No. of responses	%
Early childhood	0	0%
Elementary	56	57%
Middle School	11	11%
High School	14	14%
College	8	8%

Table 5: Age group taught

[1] Rank I is an advanced training option beyond the master's degree available for teachers in the state of Kentucky, USA.

Area taught	No. of responses	%
General music	60	61%
Choral	13	13%
Instrumental: Band	17	17%
Instrumental: Strings	2	2%

Table 6: Area taught

Special learners in the music setting (questions 8 to 13)

Because responses to the survey were discrete and ordinal, both means and modes are shown in the following tables. Most participants (i.e., the mode) reported that they teach individuals with disabilities in their music classrooms occasionally (Question 8), receive information about these students frequently (Question 9), and always encourage students with disabilities to participate in performances and extra-curricular activities (Question 12). In spite of this finding, most participants reported that they never participate in the IEP process for students with disabilities (Question 10), never connect students with disabilities with community resources (Question 11), and never have parent-teacher conferences with the parents of students with disabilities (Question 13; see Table 7).

Teaching practices (questions 14 to 17)

Most participants reported that they frequently individualise lessons and activities to meet the needs of students with and without disabilities (Question 14), frequently use multimodal or multimodal activities to aid learning (Question 15), and always use activities that encourage social interaction as a part of music making (Question 16). In keeping with the finding that most participants reported never participating in the IEP process, most participants reported never incorporating IEP goals into their lessons (Question 17; see Table 7).

Teacher perceptions (questions 18 to 26)

When asked regarding their comfort level working with students with disabilities, most participants reported that they were frequently comfortable working with students with physical, mental, and learning disabilities (Questions 18, 19, and 20), although examination of the means of responses indicates that participants were slightly more comfortable working with students with learning disabilities than they were with students who have physical or mental disabilities (see Table 7).

Most participants reported that they always believe it is important to have students with learning differences (Question 21), yet they only

ISSN: 1791-9622

frequently felt that having students with disabilities in their classrooms had been a positive experience (Question 26). Most participants reported that they frequently felt comfortable adapting activities, instructional techniques, and assessment procedures for students with disabilities (Question 23), and they occasionally to frequently felt comfortable adapting instruments or performance techniques for students with disabilities (Question 24). In spite of their comfort level, participants only occasionally believed that they had been adequately prepared to handle students with disabilities (Question 22) or that they were adequately supported by special education staff and related service personnel in their work with students with disabilities (Question 25; see Table 7).

A correlation matrix was generated using a series of Spearman rank-order correlations for ordinal data. The correlation matrix included six potential predictors (demographic data): level of education (Question 1), years of professional teaching experience (Question 2), number of general education classes taken (Question 3), number of music-specific classes taken (Question 4), level of Orff training completed (Question 5), and age group taught (Question 6). Area taught (Question 7) was not included in the correlation matrix because it represented nominal level data. The correlation matrix also included 12 potential outcomes, which consisted of responses to three questions regarding teaching practices (Questions 14-16), and the nine questions regarding teacher comfort level and perceptions (Questions 18-26). The six questions regarding special learners in the music setting (Questions 8-13) and Question 17 were not included in the matrix because they relate to factors which may be controlled in part by the teacher's school or district and are unrelated to teachers' perceptions, such as whether teachers receive information about students with disabilities or participate in the IEP process. Significant correlations between potential predictors and potential outcomes ($p < .05$) were found for two dyads (see Table 8).

A small positive correlation ($r = .31$) was found between level of Orff training and use of multimodal or multimodal activities to aid learning. A univariate ordinal logistic regression was conducted using SPSS 20 to measure the extent to which level of Orff training predicted use of multimodal or multimodal activities. Results indicated that a linear model was somewhat predictive, based on Nagelkerke's pseudo R^2 (.132). This model was significantly predictive, $\chi2(3, n = 91) = 11.791$, $p < .01$, as compared to an empty model, indicating that level of Orff training explained 13.2% of the variance for use of multimodal/multimodal activities. Because ordinal logistic regressions are non-parametric, the pseudo R^2 values identified in ordinal logistic regressions are not equivalent of those found in linear regressions; however, they have found to be close approximations (Menard 2001). A test of parallel lines in this model indicated that there were no significant differences in the model's ability to predict equally across ordinal categories for level of Orff training ($p = .65$).

A small positive correlation ($r = .39$) was found between the number of music-specific classes completed about working with special learners in a music setting and participants' belief that they had been adequately prepared to handle students with disabilities in their classrooms. A univariate ordinal logistic regression was used to measure the extent to which the number of music-specific classes predicted participants feeling adequately prepared to handle students with disabilities. Results indicated that a linear model was somewhat predictive (Nagelkerke's pseudo $R^2 = .172$), however, a test of parallel lines in this model indicated that there were significant differences in the model's ability to predict equally across ordinal categories for number of music-specific special learners courses taken, $\chi2(9, n = 97) = 17.27$, $p < .05$. The test of parallel lines is likely to result in rejection of the proportional odds assumption when the number of explanatory variables is large. This was the case in this test since there were four possible responses (0, 1, 2, or 3+) for Question 4, which asked the number of music-specific classes participants had taken. In order to decrease the number of explanatory variables, responses to Question 4 were compressed so that participants who reported taking 1, 2, or 3+ music-specific special learners classes were grouped together resulting in two groups: those who had taken a music-specific special learners course, and those who had not. A separate ordinal logistic regression was performed, which resulted in a more conservative Nagelkerke's pseudo R^2 value, .143, yet did not violate the parallel lines assumption, $p = .96$. This model was significantly predictive, $\chi2(1, n = 97) = 14.09$, $p < .001$, compared to an empty model, indicating that the number of music-specific classes taken predicted 14.3% of the variance in feelings of preparation to handle students with disabilities.

ISSN: 1791-9622

Question themes	Questions	Mean*	Mode*	*N*	%
Special learners in the music setting	8. I teach individuals with disabilities in my music classroom	3.39	3	92	93%
	9. I receive information (written, verbal, etc.) about the students with disabilities in my classes)	3.17	4	93	94%
	10. I participate in the IEP process for students with disabilities in my classes.	1.86	1	92	93%
	11. I connect students with disabilities with community resources (music lessons, ensembles, etc.).	2.23	1	93	94%
	12. I encourage students with disabilities to participate in performances, extra-curricular activities, etc.	3.80	5	92	93%
	13. I have parent-teacher conferences with the parents of students with disabilities	2.17	1	92	93%
Teaching practices	14. I individualise lessons and/or activities to meet the needs of students with and without disabilities	3.69	4	91	92%
	15. I use multi-sensory or multimodal activities to aid learning.	3.93	4	91	92%
	16. I use activities that encourage social interaction as a part of music making.	4.21	5	91	92%
	17. I incorporate IEP goals into my lessons.	2.73	1	90	91%
Teachers' comfort level with students	18. I am comfortable working with students with physical disabilities (CP, visual, hearing, etc.)	3.58	4.00	97	98%
	19. I am comfortable working with students with mental disabilities (EBD).	3.46	4.00	96	97%
	20. I am comfortable working with students with learning disabilities.	4.00	4.00	96	97%
Teachers' perceptions	21. I believe it is important to have students with learning differences in my classroom.	4.30	5.0	97	98%
	22. I believe that I have been adequately prepared to handle students with disabilities in my classroom.	2.80	3.0	97	98%
	23. I feel comfortable adapting activities, instructional techniques, and assessment procedures to meet the needs of students with disabilities.	3.45	4.0	97	98%
	24. I feel comfortable adapting instruments or performance techniques for students with disabilities.	3.44	3.5	97	98%
	25. I believe that I am adequately supported by special education staff and related service personnel in my work with students with disabilities.	3.06	3.0	95	96%
	26. Overall, having students with disabilities in my classroom has been a positive experience.	3.78	4.0	87	88%

*1 = never, 2 = rarely, 3 = occasionally, 4 = frequently, 5 = always

Table 7: Responses to questions regarding special learners in the music setting, teaching practices, teachers' comfort level with students, and teachers' perceptions

ISSN: 1791-9622

Question	1.Edu.	2.Exp.	3.Gen. class	4.Mus. class	5.Orff level	6.Age taught
14. I individualise lessons and/or activities to meet the needs of students with and without disabilities	.06	.12	-.01	.04	.06	-.11
15. I use multi-sensory or multimodal activities to aid learning.	.19	.13	-.05	-.10	.31 *	-.13
16. I use activities that encourage social interaction as a part of music making.	.16	.09	.03	-.02	.27	-.17
18. I am comfortable working with students with physical disabilities (CP, visual, hearing, etc.)	-.07	-.02	.26	.17	-.01	-.12
19. I am comfortable working with students with mental disabilities (EBD).	-.03	.10	.20	.15	.04	-.22
20. I am comfortable working with students with learning disabilities.	-.02	.13	.23	.10	-.04	.05
21. I believe it is important to have students with learning differences in my classroom.	-.16	.01	.15	.08	.16	-.05
22. I believe that I have been adequately prepared to handle students with disabilities in my classroom.	-.18	-.13	.18	.39 *	-.21	.01
23. I feel comfortable adapting activities, instructional techniques, and assessment procedures to meet the needs of students with disabilities.	-.20	-.17	.18	.24	-.15	-.01
24. I feel comfortable adapting instruments or performance techniques for students with disabilities.	-.13	-.17	.14	.16	-.14	.06
25. I believe that I am adequately supported by special education staff and related service personnel in my work with students with disabilities.	-.04	-.03	-.02	.09	.01	.02
26. Overall, having students with disabilities in my classroom has been a positive experience.	-.06	.12	.15	.09	-.03	-.02

*Indicates significant correlation, $p < .05$.

Table 8: Correlation matrix

Discussion

Teaching practices

The purpose of this investigation was to examine music educators' teaching practices with, and perceptions of, students with special needs in the music education classroom. More specifically, we were interested in determining which aspects of teacher preparation, including Orff-Schulwerk training, had an impact on educators' work with students with disabilities. In general, the results suggest that music educators support active involvement of students with disabilities in both performance and extra-curricular activities. The majority of participants stated that they frequently individualised goals for all students, yet most do not participate in the IEP process nor do they include IEP-related goals in the music classroom.

Perhaps one of the most interesting findings is the fact that most participants stated that they rarely connect students with disabilities with community resources, and that they rarely have parent-teacher conferences with the parents of students with disabilities. It has been suggested that music educators should make a "special effort to contact and get to know parents" (Sandene 1994: 33) to promote student retention. This would seem to be especially important when working with students with disabilities given their wide range of needs, yet very few respondents to this study did so. Likewise, Reis, Schader, Milne and Stephens (2003) suggest that the use of a broad selection of music enrichment experiences may increase musical engagement and enhance learning in other areas for students with disabilities. Again, however, participants in this study rarely connected students with community resources, potentially limiting musical enrichment and missing opportunities to enhance non-musical learning. This suggests that music educators need more information on the importance of connecting with the parents of students with special needs as well as connecting students with disabilities to community resources.

ISSN: 1791-9622

Results of this study also indicate a possible connection between Orff-Schulwerk training and classroom practices, specifically related to the use of multimodal activities. Interestingly, the only demographic variable that predicted teachers' use of multimodal activities in the classroom was the level of Orff training. This is especially important given that multimodal instruction, which involves the use of visual, auditory and kinaesthetic-tactile approaches simultaneously, has been recommended for children with disabilities for decades (Vaughn & Linan-Thompson 2003), and has been shown to be effective in improving academic outcomes (Thompson 2008; Vickery, Reynolds & Cochran 1987). McRae (1982) stated that Orff educators, with their non-traditional, developmental approach, automatically provide opportunities for skill development through varied sensory experiences. As a result, children with differing needs can be successful in an Orff classroom without "radical restructuring of the curriculum" (McRae 1982: 32). This suggests that it could be important to expose future music educators to Orff concepts and highlight their potential effectiveness with students with disabilities.

Teacher perceptions

Of all the demographic variables examined in this study, the only factor that significantly impacted feelings of preparation to teach special learners in the music classroom was the number of music-specific courses taken related to teaching special learners. Most respondents felt comfortable working with students with special needs; however, despite their general comfort level, the mean scores indicate that the majority of respondents only occasionally felt confident in their preparation to handle students with disabilities and that they only occasionally felt adequately supported by special education staff and related service personnel in their work with students with disabilities.

Taking coursework on teaching special learners in the music classroom appears to contribute to teachers' perception of being adequately prepared to teach students with disabilities. Previous research indicates that music educators often work with special learners without the necessary competencies essential for effective teaching (Hammel 2004). Hammel (2004) and Colwell and Thompson (2000) concluded that music educators would be best prepared to meet the needs of special learners if the necessary competencies were included in college music education curricula. Results of the current investigation are consistent with these findings, strengthening the argument that music-specific special learners courses are the most appropriate way to address the unique needs of special learners in the music setting. Unfortunately, such courses are infrequent and often difficult to offer (Hourigan 2007).

Requirements for the number and type of college level courses that music education students in the USA must take related to teaching special learners vary not only from state to state, but also among colleges and universities within the same state (Colwell & Thompson 2000; Heller 1994). Although beyond the scope of the present survey, it would be of interest to investigate in future research which colleges and universities currently offer courses on teaching special learners in music settings. The percentage of schools which offer such courses could be compared to earlier surveys (Colwell & Thompson 2000; Heller 1994) to see if this figure has increased over the past decade.

Conclusion

The two primary findings of this study provide support for music-specific special learners courses and Orff-Schulwerk training as effective means of preparation for and teaching of students with special needs. While the information gathered about music-specific training related to students with disabilities is consistent with the current literature, the information regarding Orff-Schulwerk's impact on classroom teaching practices in relation to special learners provides new insight into working with students with special needs. Given that none of the other factors studied (years of experience, level of education, etc.) significantly influenced comfort level, future studies should explore other potential factors that may impact teacher perceptions when working with students with special needs.

References

Adamek, M. S. (2001). Meeting special needs in the music class. *Music Educators Journal, 87*(4), 23-26.

Colwell, C. M., & Thompson, L. K. (2000). "Inclusion" of information on mainstreaming in undergraduate music education curricula. *Journal of Music Therapy, 37*, 205–221.

Gfeller, K. & Darrow, A. A. (1987). Ten years of mainstreaming: Where are we now? *Music Educators Journal, 74*(2), 27-30.

Gfeller, K., Darrow, A. A., & Hedden, S.K. (1990). Perceived effectiveness of mainstreaming in Iowa and Kansas schools. *Journal of Research in Music Education, 38*(2), 90-101.

Hammel, A. M. (2004). Inclusion strategies that work. *Music Educators Journal, 90*(5), 33-37.

ISSN: 1791-9622

Hammel, A. M. & Hourigan, R. M. (2011). *Teaching Music to Students with Special Needs: A Label Free Approach*. Oxford: Oxford University Press.

Heller, L. (1994). *Undergraduate music teacher preparation for mainstreaming: A survey of music education teacher training institutions in the Great Lakes region of the United States.* Doctoral dissertation, Michigan State University. Retrieved from Dissertation Abstracts International (56-03A, 858).

Hourigan, R. (2007). Preparing music teachers to teach students with special needs. *Update: Applications of Research in Music Education, 26*, 5-14.

Hourigan, R. M. (2009) Preservice music teachers' perceptions of fieldwork experiences in a special needs classroom. *Journal of Research in Music Education, 57*, 152-168.

Jellison, J. A., Brooks, B.H., & Huck, A.M. (1984). Structuring small groups and music reinforcement to facilitate interactions and acceptance of severely handicapped students in the regular music classroom. *Journal of Research in Music Education. 32*, 243-264.

Jellison, J. A. (2002). On-task participation of students close to and Away from classmates with disabilities in an elementary music classroom. *Journal of Research in Music Education, 50*, 343-355.

Johnson, C. M. & Darrow, A. A. (1997). The effect of positive models of inclusion on band students' attitudinal statements regarding the integration of students with disabilities. *Journal of Research in Music Education, 45*, 173-184.

Johnson, C. M. & Darrow, A. A. (2003). Attitudes of junior high school music students from Italy and the USA toward individuals with a disability. *Bulletin of the Council for Research in Music Education, 155*, 33-43.

Kaiser, K. A. & Johnson, K. E. (2000). The effect of an interactive experience on music majors' perceptions of music for deaf students. *Journal of Music Therapy, 37*, 222-234.

McCord, K. & Watts, E. H. (2006). Collaboration and access for our children: Music educators and special educators together. *Music Educators Journal, 92*(4), 26-33.

McRae, S. W. (1982). The Orff connection… reaching the special child. *Music Educators Journal, 68*, 32-34.

Menard, S. (2001). *Applied logistic regression analysis.* Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-106. Thousand Oaks, CA: Sage.

Reis, S. M., Schader, R., Milne, H., & Stephens, R. (2003). Music and minds: Using a talent development approach for young adults with Williams Syndrome. *Exceptional Children, 69*, 293-313.

Salvador, K. (2010). Who isn't a special learner? A survey of how music teacher education programs prepare future educators to work with exceptional populations. *Journal of Music Teacher Education, 20*, 27-38.

Sandene, B. A. (1994). Going beyond recruiting: Fighting attrition. *Music Educators Journal, 81*(1), 32.

Thompson, M. (2008). Multimodal teaching and learning: Creating spaces for content teachers. *Journal of Adolescent & Adult Literacy, 52*, 144-153.

Vaughn, S. & Linan-Thompson, S. (2003). What is special about special education for students with learning disabilities? *The Journal of Special Education, 37*, 140-147.

Vickery, K. S., Reynolds, V. A., & Cochran, S. W. (1987). Multisensory teaching approach for reading, spelling, and handwriting, Orton-Gillingham Based Curriculum, in a public school setting. *Annals of Dyslexia, 37*, 189-200.

Whipple, J. & Van Wheelden, K. (2012). Educational supports for students with special needs: Preservice music educators' perceptions. *Update: Applications of Research in Music Education, 30*(2), 32-45.

Wilson, B. & McCrary, J. (1996). The effect of instruction on music educators' attitudes toward students with disabilities. *Journal of Research in Music Education, 44*, 26-35.

Suggested citation:

Gooding, L., Hudson, M., & Yinger, O. (2013). Students with special needs in the 21st century music classroom: Practices and perceptions of Orff- and non-Orff trained educators. *Approaches: Music Therapy & Special Music Education, Special Issue 5*(2), 166-174. Retrieved from http://approaches.primarymusic.gr

ISSN: 1791-9622