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Effects of Age, Experience, and Instruction on Elementary Music Teacher Movement Self-Efficacy: A Pilot Study

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As one of the recognized media of the Orff-Schulwerk method of music instruction, movement is fundamental to music specialists' teaching. It can embody the mantra of "sound before sign," and provide the means by which students experience the kinesthetic learning that is so natural to their musical development. In her 1972 address to the American Orff-Schulwerk Association (AOSA), Barbara Haselbach stated, "Skipping, running, tripping along, turning, and springing and all other ways in which children move are signs of an increased consciousness of life, but also of an excess of vitality that must disperse itself through some kind of motor activity" (Carley, 2004, p. 107). Music teachers often take advantage of childrens' natural movements, incorporating them as expressive elements in the instruction of music fundamentals. "Orff teachers do not view movement study as an end in itself but as another means towards musical and emotional growth" (Frazee, 1987, p. 19).

Because teachers using the Orff music method must model, lead, and teach movement applications, there exists a recognized model of training. The American Orff Schulwerk Association (AOSA) (1998) cites the following as goals of movement coursework throughout its three training levels: development of improvisational skills, movement and dance vocabulary, and movement and dance pedagogy. However, AOSA also states that limitations of physical condition and capability as well as social acceptance of movement should be taken into account by instructors.

Educators have long championed the use of movement in music instruction. Progressive educators, such as Froebel (1878), Farnsworth (1909), and Hall (1911), advocated the use of motions that included clapping, marching, stepping, and dancing (Campbell, 1991). With his system of eurhythmics, Jaques-Dalcroze (1930) popularized learning musical concepts through movement. General music teaching materials have continued to recommend movement as a respected instructional approach to teaching musical concepts, especially at primary levels (Campbell, 1991).

Researchers have examined the types of movement used in music instruction (Campbell, 1991; Flohr & Brown, 1979; Gilbert, 1980; Metz, 1989), and its effect on children's performance of basic music skills (Aschersleben and Prinz, 1995; Boyle, 1970; Frega, 1979; Malbrán, 2000;

Rainbow, 1981; Schleuter & Schleuter, 1985). Rainbow (1981) examined the ability of three and four year-old children to keep a steady beat. Vocal responses were easiest for both age groups when accompanied by the movements of clapping and tapping. Aschersleben and Prinz (1995) found that hand tapping yielded significantly more accuracy than foot tapping. Malbran (2002) reports that steady beat accuracy in arm movements is found to increase with age.

Teachers must have the knowledge, skill, and confidence to model, perform, and give feedback on movement to effectively impact students' musical learning. Bandura (1997) stated that to be motivated to participate in an activity, one must possess self-efficacy, the belief in one's own abilities to perform a task successfully. Bandura defined it as "…beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3).

Research in self-efficacy has been frequently investigated in the fields of psychology and education with findings indicating various significant impacts on students (Anderson, Greene, & Loewen 1988; Bandura & Schunk, 1981; Goddard, Hoy, & Hoy, 2000; Lent, Brown, & Larkin, 1986; Moore & Esselman, 1992; Multon, Brown, & Lent, 1991; Pajares, 1996; Pajares & Valiante, 1997; Pintrich & Schunk, 1996; Schunk, 1995; Zimmerman & Bandura, 1994; Zimmerman, Bandura, & Martinez-Pons, 1992). Research has shown that teacher efficacy was indicative of student achievement on the Iowa Test of Basic Skills (Moore & Esselman, 1992), the Canadian Achievement Tests (Anderson, et al., 1988), and the Ontario Assessment Instrument Pool (Ross, 1992). Related to these findings are studies that claim teacher efficacy may even influence students' own efficacy (Anderson et al., 1988) and motivation (Midgley, Feldlaufer, & Eccles, 1989).

Students' self-efficacy beliefs also tend to decline gradually throughout schooling (Pintrich & Schunk, 1996). Research shows that teachers can positively impact student efficacy by providing learning goals (Zimmerman & Kitsantas; 1996, 1997), implementing learner-centered instructional practices that stress critical thinking (Meece, Herman, & McCombs, 2003), and by supporting students' academic achievement (Anderman, Patrick, Hruda, Linnenbrink, 2002).

Research reveals strong relationships between self-efficacy and musical achievement in performance (McCormick & McPherson, 2003; McPherson & McCormick, 2006), individual practice (McCormick & McPherson, 1999; Nielson, 2004), jazz improvisation (Davison, 2010; Watson, 2010), and music teaching (Steele, 2009). There is evidence that student self-efficacy is a predictor of performance success (McCormick & McPherson, 2003; McPherson & McCormick, 2006, McPherson & Zimmerman, 2002). Klinedinst (1991) and Stewart (2002) found that self-efficacy also plays a major role in student retention in music programs. These results may suggest that students choose to remain in programs that showcase their perceived strengths (Ebie, 2005).

Outside of student self-efficacy, there also exists research that explores many other variables that may affect adult and teacher self-efficacy, including participation and retention factors (Ayotte, Margrett, & Hicks-Patrick, 2010; Callea, Spittle, O'Meara, & Casey, 2008; Fontaine & Shaw, 1995). Callea, Spittle, O'Meara, and Casey (2008) examined the self-efficacy of primary grade teachers related to teaching Australia's Fundamental Movement Skills (FMS) classes and found a positive relationship between self-efficacy related to teaching these classes, and interest in teaching the classes, and participation in physical activity. Fontaine and Shaw (1995) investigated healthy adults and their adherence to an eight-week step aerobic class. Results indicate that participants who adhered to the program had a significantly higher self-efficacy score than those who dropped out. This attrition among participants may be explained by

Bandura (2006), who concluded that perceived efficacy can determine the pivotal choices people make at significant decision points in life. When faced with difficulties, those with low efficacy opt to give up whereas those with high efficacy view obstacles as surmountable and prove to be resilient.

Another variable that may impact self-efficacy is age. Differences in self-efficacy have been examined across age groups in motor skills research. Ghisletta, Kennedy, Rodrigue, Lindenberger, and Raz (2007) compared younger and older adults on bimanual coordination tasks at various movement speeds. Results indicate that older adults tended to perform as well as younger individuals in terms of accuracy and stability at slow paces, but age differences existed at higher speeds. Potter (2009) examined older adults' perceived ability to complete mentally and physically challenging tasks. It was found that older adults with higher confidence displayed only minor errors, while those showing lower confidence made extreme errors. These results seem to indicate that, with the exception of limitations such as speed of tasks, older adults may display similar gains to younger adults in motor learning. Research has yet to show the role of self-efficacy in physical activity performance.

Experience in performing tasks may also be a determinant in adult and teacher self-efficacy (Anderson et al., 1988; Housego, 1992; Hoy and Woolfolk, 1990; Tschannen-Moran, Hoy, & Hoy, 1998; Tsorbatzoudis, Daroglou, Zahariadis, & Grouios, 2003). Tsorbatzoudis, et al. (2003) used the Coaching Efficacy Scale, to examine coaches' beliefs about their ability to affect athletes in areas of game strategy, motivation, teaching technique, and character building. Results yielded significant differences between experienced and less experienced coaches on teaching technique and overall self-efficacy, with experienced coaches having higher efficacy scores. Research has shown teachers' self-efficacy to be more malleable during pre-service years (Housego, 1992; Hoy & Hoy, 1990). Anderson, Greene, and Loewen (1988) and Tschannen-Moran, Hoy, and Hoy (1998) found that teachers' efficacy becomes resistant to change with more years of experience. Ross (1994) discovered an increase in general teaching efficacy following an eight-month training on cooperative learning. General teaching efficacy was defined as the ability to use techniques to control various social conditions of students. Personal teaching efficacy was defined as confidence in one's teaching ability, and was found to be stable across time, indicating that self-efficacy may be difficult to increase with teachers' experience. Ross (1994) stated that self-efficacy increases may appear diminished because teachers are affected by the perceptions and comparisons of other teachers, who may also be in professional training.

Studies have also shown that professional development may only result in higher self-efficacy when training focuses the teacher in a meaningful and participatory way, which usually involves application of the knowledge learned (Bandura, 1997; Cochran-Smith & Lytle, 1990, 1999; Henson, 2001; Knight & Boudah, 1998; Noffke, 1997; Ross, 1994). For example, researchers have directly involved teachers in research, which may include critical examination of their classrooms and evaluation of the effect of the teachers' interventions within it (Knight & Boudah, 1998).

The relationship between meaningful participation and self-efficacy can also be seen in music research on self-efficacy (Davison, 2010; Nielson, 2004; Watson, 2010). Davison (2010) studied the effect of intensive improvisation instruction on middle school instrumentalists' self-efficacy. Results indicated a significant increase in both instrumental music and improvisation self-efficacy following treatment. Watson (2010) examined the effects of two instructional approaches (aural and pedagogical) on achievement and self-efficacy of instrumental college musicians. Participants' self-efficacy increased significantly with the instruction in jazz

improvisation. Similarly, when studying college students' practice techniques, Nielson (2004) found that those who were more deeply involved with thought processes during practice and performance demonstrated higher self-efficacy.

Despite increasing research on students' self-efficacy, there remains scant research on music teachers' self-efficacy within the music class. A notable exception is Bergee and Grashel (2002), who found that teacher self-efficacy beliefs can be strengthened over time. Other studies (Madura, 2000; Madura Ward-Steinman, 2007) examined teachers' self-efficacy in teaching improvisation at various grade levels. Findings indicated an inverse relationship, as music teacher improvisation self-efficacy decreased significantly as student age increased. This may be explained by Watson (2010), who suggested that self-efficacy is situational and contextual.

Because there are multiple variables that may affect self-efficacy, it is important to discover their relationships in the field of music education, specifically as it relates to teachers' own movement development and confidence level. The purpose of this research was to measure the effects of age, experience, and instruction on elementary music teacher movement self-efficacy. This pilot study also was designed to examine differences in the overall pretest scores of Level I and Level II participants.

Method

Volunteer participants (N=23) in this study were enrolled in Level 1 (n=14) or Level 2 (n=9) of a two-week AOSA approved Orff Schulwerk training workshop held at a Southern university. Participants were primarily female music teachers (n=22) representing three states. Orff Schulwerk courses typically comprise 3 curricular components: basic pedagogy, recorder, and movement. Each participant in a two-week Orff Schulwerk workshop engages in at least 1.25 hours of movement instruction per day for a total of 12.5 hours. Movement activities were also implemented in the basic training during this study, but were not the primary focus.

Participants completed the *Movement Self-Efficacy Scale for Elementary Music Teachers* (MSES), a measure created by the researchers, before beginning the Orff workshop and immediately following the last movement class on the last day of the workshop (pre-test, post-test design). The 24-item survey (see Figure 1) was made up of statements in which participants had to circle a number (0 – 10) that corresponded to the confidence in their ability (or self-efficacy) to perform the given task, with 10 meaning "confident I can do" and 0 meaning "cannot do at all". The *Movement Self-Efficacy Scale* was created following the recommendations of Bandura (2006) for developing a valid self-efficacy instrument. Content validity for the scale was then evaluated by an AOSA approved movement instructor and a music educator who had recently completed Level I movement training. Cronbach's alpha of .98 suggests that the items included in the *Movement Self-Efficacy Survey* are internally consistent.

Movement Self-Efficacy Scale for Elementary Music Teachers

Please rate each of the following statements based on how certain you are that YOU can do each of the following.

Please circle one rating for each statement – please do not circle between numbers.

	Cannot do at all				Moderately confident						Confident I can do
1. I can shadow another person's movements.	0	1	2	3	4	5	6	7	8	9	10
2. I can model movement in front of 3rd-6th grade students.	0	1	2	3	4	5	6	7	8	9	10
3. I can perform body percussion patterns.	0	1	2	3	4	5	6	7	8	9	10
4. I can perform movement with a group of adults.	0	1	2	3	4	5	6	7	8	9	10
5. I can perform movement in low space.	0	1	2	3	4	5	6	7	8	9	10
6. I can perform movement set to fast tempo music.	0	1	2	3	4	5	6	7	8	9	10
7. I can create/design locomotor movement activities for elementary students.	0	1	2	3	4	5	6	7	8	9	10
8. I can mirror another person's movements.	0	1	2	3	4	5	6	7	8	9	10
9. I can perform fluid movement through space.	0	1	2	3	4	5	6	7	8	9	10
10. I can create/design non-locomotor movement activities for elementary students.	0	1	2	3	4	5	6	7	8	9	10
11. I can perform movement with delicacy and finesse.	0	1	2	3	4	5	6	7	8	9	10
12. I can create body percussion patterns.	0	1	2	3	4	5	6	7	8	9	10
13. I can model movement in front of PreK-2nd grade students.	0	1	2	3	4	5	6	7	8	9	10
14. I can perform movement in high space.	0	1	2	3	4	5	6	7	8	9	10
15. I can create/design non-locomotor movement activities with an object for elementary students.	0	1	2	3	4	5	6	7	8	9	10
16. I can model movement in front of adults.	0	1	2	3	4	5	6	7	8	9	10
17. I can perform movement with force and power.	0	1	2	3	4	5	6	7	8	9	10
18. I can perform movement with a group of 3rd-6th grade students.	0	1	2	3	4	5	6	7	8	9	10
19. I can perform sharp or sudden movements through space.	0	1	2	3	4	5	6	7	8	9	10
20. I can perform movement with a group of PreK-2nd grade students.	0	1	2	3	4	5	6	7	8	9	10
21. I can create/design locomotor movement activities with an object for elementary students.	0	1	2	3	4	5	6	7	8	9	10
22. I can improvise fluid movements to music.	0	1	2	3	4	5	6	7	8	9	10
23. I can improvise sudden/sharp movements to music.	0	1	2	3	4	5	6	7	8	9	10
24. I can model choreographed dances in front of elementary students.	0	1	2	3	4	5	6	7	8	9	10

Figure 1. Movement Self-Efficacy Scale for Elementary Music Teachers

Participants were handed the survey at the opening orientation meeting of the workshop. The researchers instructed participants to only circle one rating for each item. Demographic information (such as date of birth, number of years teaching elementary students, etc.) was also obtained from the participants on the back of the survey. Participants were coded into groups by age ["1" = 20-35 years of age (*n*=7), "2" = 36-50 years of age (*n*=9), "3" = 51+ years of age (*n*=7)], as well as experience ["1" = 1-4 years (*n*=6), "2" = 5-10 years (*n*=8), "3" = 11+ years (*n*=9)]. Age was calculated in years from date of birth to date of the pretest.

Item responses were summed with a possible overall score ranging from 0 – 240. The higher the score, the more efficacious the participant perceived himself or herself to be in movement ability. Posttests were issued immediately following the last movement class of the workshop. The same instructions were given, but no demographic information was requested on the posttest. The same scoring procedure used on the pretest was employed on the posttest.

This study sought to measure the relationship between Orff-Schulwerk movement instruction and the movement self-efficacy of participating music teachers. Other variables such as age and experience were also compared. Descriptive statistics, including means and standard deviations, were calculated for each item response for Level I and Level II participants. Overall descriptive statistics were also calculated for scores on the *MSES* by levels, experience groups, and age groups. To determine whether Level I and Level II participants differed on the *MSES* pretest, a one-way, between subjects ANOVA was performed. A mixed ANOVA with repeated measures was calculated to examine the effects of instruction on Level 1 participants' movement self-efficacy, with between-subjects variables of teaching experience and age compared. An alpha level of .05 with a nondirectional hypothesis was established for analysis.

Results

Means and standard deviations for each item response on the Movement Self-Efficacy Scale pretest were calculated by Orff Level. As Table 1 shows, Level 1 participants reported lowest self-efficacy scores on item 16 ("I can model movement in front of adults") and item 17 ("I can perform movement with force and power"). Level II participants also reported lower efficacy on item 16 indicating that, overall, participants are less confident modeling movement in front of their peers. High means for both levels were reported for Item 20 ("I can perform movement with a group of PreK-2nd grade students"). Level II participants also indicated they felt efficacious in their ability to model movement in front of PreK-2nd grade students (Item 13).

Table 1

Descriptive Statistics for Item Responses on Movement Self-Efficacy Scale by Level

	Level 1		Level 2	
Item	*M*	*SD*	*M*	*SD*
1. I can shadow another person's movements.	7.93	1.94	9.22	1.09
2. I can model movement in front of 3rd-6th grade students.	7.86	2.41	8.89	1.54
3. I can perform body percussion patterns.	7.64	2.02	8.78	1.30
4. I can perform movement with a group of adults.	7.07	2.37	8.78	1.79
5. I can perform movement in low space.	5.93	2.56	9.00	1.32
6. I can perform movement set to fast tempo music.	6.80	2.52	8.11	1.90
7. I can create/design locomotor movement activities for elementary students.	6.57	2.82	8.33	2.06
8. I can mirror another person's movements.	7.93	1.82	9.44	0.73
9. I can perform fluid movement through space.	6.36	2.88	9.00	1.12
10. I can create/design non-locomotor movement activities for elementary students.	6.71	2.79	8.89	1.17
11. I can perform movement with delicacy and finesse.	5.79	2.52	8.00	0.87
12. I can create body percussion patterns.	7.07	2.20	8.22	1.20
13. I can model movement in front of PreK-2nd grade students.	8.14	1.75	9.78	0.67
14. I can perform movement in high space.	7.29	2.46	9.44	0.88
15. I can create/design non-locomotor movement activities with an object for elementary students.	6.07	2.13	8.44	1.74
16. I can model movement in front of adults.	5.93	3.39	7.56	2.19
17. I can perform movement with force and power.	5.93	2.92	8.22	2.28
18. I can perform movement with a group of 3rd-6th grade students.	7.14	2.74	9.00	1.32
19. I can perform sharp or sudden movements through space.	6.79	2.55	8.33	1.58
20. I can perform movement with a group of PreK-2nd grade students.	7.93	1.94	9.56	0.88
21. I can create/design locomotor movement activities with an object for elementary students.	6.36	2.27	8.33	1.80
22. I can improvise fluid movements to music.	6.29	2.81	8.33	1.32
23. I can improvise sudden/sharp movements to music.	6.43	2.62	7.78	1.72
24. I can model choreographed dances in front of elementary students.	7.14	2.85	8.00	2.29

Overall means and standard deviations on the Movement Self-Efficacy Scale pre/posttest were calculated by level, experience, and age. As Table 2 reveals, overall posttest means were higher than pretest means for each grouping variable. Standard deviations were also lower for each group on the posttest, which indicates a reduction in variance. While Level I and Level II

participants showed overall mean gains between the pretest and posttest (Level I = +34.42, Level II= +16.78), results show that Level II participants reported descriptively higher self-efficacy scores on the pre-test (M=207.44, SD=25.46) than Level I participants scored on the post-test (M=200.21, SD=41.74). For the variable of age, Group 2 (36-50 years of age) had the lowest mean (M=170.67, SD=48.72), but made the largest mean gain between the pretest and posttest (+39.22). Group 3 (51+ years of age) showed the lowest mean gain (+10.72) between the pretest and posttest.

Table 2

Descriptive Statistics for MSES Pre/Post-Test by Age, Experience, and Level

	Pre-test		Post-test	
Variables	*M*	*SD*	*M*	*SD*
Levels				
Level 1	165.79	52.94	200.21	41.74
Level 2	207.44	25.46	224.22	19.94
Age				
Group 1 (20-35 years)	188.14	45.97	217.42	25.44
Group 2 (36-50 years)	170.67	48.72	209.89	37.10
Group 3 (51+ years)	190.71	54.04	201.43	46.89
Experience				
Group 1 (1-4 years)	199.50	43.77	220.33	27.91
Group 2 (5-10 years)	158.38	53.49	193.75	45.81
Group 3 (11+ years)	191.56	42.43	216.56	30.13

For the variable of experience, participants with 5-10 years of teaching experience (Group 2) reported the lowest mean on the pretest (*M*=158.38, *SD*=53.49) and posttest (*M*=193.75, *SD*=45.81), but showed the greatest mean gain (+35.37) between the pretest and posttest. Group 1 (1-4 years of experience) had the highest mean scores on the pretest (*M*=199.50, *SD*=34.77) and posttest (*M*=220.33, *SD*=27.91).

In order to evaluate whether Level I participants differed from Level II participants in movement self-efficacy, a one-way, between-subjects ANOVA was conducted with "Level" serving as the independent variable, and the Movement Self-Efficacy Scale pretest serving as the dependent variable.

A mixed ANOVA with repeated measures was calculated to examine the effects of instruction on Level 1 participants' movement self-efficacy, with between-subjects variables of teaching experience and age compared. As Table 3 shows, the repeated measures ANOVA revealed that the pretest scores (*M*=167.79, *SD*=52.94) significantly differed from the posttest scores (*M*=200.21, *SD*=41.74), [*F*(1,26)=13.12, *p*=.009] indicating intensive movement instruction over a 2-week period may have accounted for the increase in participants' reported

movement self-efficacy. No main effect was found for the between-subjects variables of experience or age. No significant interactions were found.

Table 3

Mixed ANOVA Summary Table

Source	SS	*df*	MS	*F*	*p*
Within Subjects					
MSES	5983.87	1	5983.87	13.11	.01
MSES x Age	701.78	2	350.89	.77	.50
MSES x Experience	218.05	2	109.03	.24	.79
MSES x Age x Experience	41.10	2	20.55	.05	.96
Error	3195.96	7	456.57		
Between Subjects					
Age	5215.46	2	2607.73	.79	.49
Experience	12471.54	2	6235.77	1.89	.22
Age x Experience	22980.63	2	11490.31	3.48	.09
Error	23096.63	7	3299.52		

Discussion

The purpose of this study was to examine the effects of age, experience, and instruction on elementary music teacher movement self-efficacy. This pilot study was also designed to determine if differences existed in the overall pretest scores of Level I and Level II participants.

Volunteer participants (N=23) of this study were enrolled in a two-week AOSA approved Orff Schulwerk training workshop, and completed the Movement Self-Efficacy Scale for Elementary Music Teachers (MSES) before beginning the Orff workshop and immediately following the last movement class on the last day of the workshop (pretest, posttest design).

Participants in Levels I and II reported high levels of confidence in performing movement with a group of PreK to 2nd-grade students, with Level II participants indicating an even greater confidence in their ability in this environment. The finding supports the statement by Watson (2010) that self-efficacy is contextual. While participants were comfortable moving with and modeling for children in primary grades, their perceived confidence diminished as student age classifications increased (e.g., 3rd to 6th grade and adults). This trend of diminishing movement efficacy has also been found in the improvisational efficacy of choir directors (Madura, 2000; Madura Ward-Steinman, 2007). Results from the current study counter Anderson et al., (1988) and Tschannen-Moran et al. (1998) who found self-efficacy resistant to change with age.

It should be noted that while all participants completed the movement training, there were times when some of the older participants refrained or modified movements possibly due to movement limitations. Research has shown that participants who adhere to a task or program increase in self-efficacy (Bandura, 2006, Callea, et al., 2008; Fontaine & Shaw, 1995). While modifications are mentioned in the movement guidelines of AOSA (1998), it is important that instructors realize the effect of participation on self-efficacy and encourage and engage

participants accordingly. While no movement participant should be forced beyond his or her own physical capabilities, it is possible that discontinuance of a task is simply the result of low self-efficacy and perception of capability. As Bandura (2006) found, when faced with difficulties, those with low efficacy tend to give up where as those with high efficacy view obstacles as achievable.

That each participant completed the program and showed growth in movement self-efficacy is consistent with research that shows meaningful and active immersion in intensive training increases self-efficacy (Bandura, 1997; Cochran-Smith & Lytle, 1990, 1999; Davison, 2010; Henson, 2001; Knight & Boudah, 1998; Nielson, 2004; Noffke, 1997; Ross, 1994; Watson, 2010). While all participants showed increased movement self-efficacy, results revealed a statistically significant difference between Level I and Level II participants on the *Movement Self-Efficacy Scale*. Perhaps this is due to Level II participants' previous Level I movement training in addition to the application of movement activities within their respective classrooms throughout the year. That there were no main effects of age or experience supports the research by Ghisletta, et al. (2010) who noted many similarities in the motor skill accuracy of older adults.

Overall results indicate that the Level I participants had significantly lower movement self-efficacy than Level II participants upon entering Orff Schulwerk movement training. Results also indicate that Orff Schulwerk Level I movement instruction may significantly increase participants' movement self-efficacy. This is consistent with research by Bergee and Grashel (2002) who found that teacher self-efficacy can be increased over time. The increase in movement self-efficacy for Level II participants may not be as substantial due to the ceiling effect, or could be attributed to differences in the amount of instruction between levels. Results from this study also show that neither age nor years of experience appear to have an impact on movement self-efficacy results. More research utilizing a larger sample size is needed to see if these trends are confirmed.

Other areas of future research may involve a concentrated examination of only Level I participants since Level II mean scores were found to be more efficacious from the beginning. Studies might also investigate other sources of movement training and their comparative effects on movement self-efficacy. Also of interest is the frequency of movement integration following intensive movement training, and whether teacher movement self-efficacy remains constant or shifts over the course of movement application in the classroom.

By showing that teacher movement self-efficacy is impacted by Orff Schulwerk instruction, this study lends support to the importance of active participation in training. Because of the low sample size within this pilot study, readers should take caution when generalizing results. In this study, however, it seems that movement self-efficacy may be increased regardless of age or experience. Music teachers, especially those that feel inhibited in movement, may benefit from participation in a professional development program such as Orff Schulwerk instruction.

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