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A Qualitative Phenomenological Study on the Impact of Teacher Attitudes on Physical Activity

Programs tied to Academic Achievement in the Elementary School Classroom

Callee Savage

University of Redlands

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Abstract

It has been questioned whether physical activity programs in general education classrooms contribute to academic achievement in students. A literature review has been done to analyze that existing relationship in which it was found that as physical activity increases, so does academic achievement. Three overall themes were extracted: The Importance of General Participation, The Differentiation of Instruction, and The Effect of Intensity Levels. Furthermore, due to the gap in the literature, the current study aimed to assess teachers' roles in these situations. Observations of classrooms and interviews with four public school elementary teachers were conducted to discover that role. The results demonstrated four major findings: movement is important, the attitude towards physical exercise in the classroom is positive, physical activity should be implemented into activities, and valid limitations to physical exercise exist but it is worthwhile. The implications of this study suggest that the attitudes of teachers match the behavior of students and their general academic level. Thus, acting as predictors of successful implementation of physical activities. Therefore, future teachers should learn to have a positive attitude in general, but especially towards physical activity, as physical activity is essential for the betterment of student performance.

Introduction

In many public schools today, things like physical-education classes and recess have been put on the back burner due to higher educational stakes and strenuous financial times. “Since the passage of the No Child Left Behind Act in 2001, 44% of school administrators report cutting significant time from PE and recess so there's more time for subjects such as reading and math,” (Hellmich, 2013, p. 1). Various research suggests that only about half of young students in the United States are meeting the government's physical-activity guideline. In addition, some research exists arguing physical exercise implemented into every day classrooms boosts productivity and promotes academic achievement. One intention of the current qualitative phenomenological study was to locate classrooms in which physical activity programs occur and academic achievement is present, and evaluate the attitude said teachers have towards them and how that affects its' success.

Background of the Problem

According to my personal observations in schools, early elementary school children who do poorly academically also appear to be restless, have a low attention span, and exude a lack of energy during class time. In prior research there is almost always some association, or at least not a negative one present, between physical activity programs and academic achievement. However, the research does not address the teacher's role in this outcome. This creates the question of whether it is the physical activity programs helping, or the commitment of the teacher that is boosting academic achievement. The gap that seems to lie in the previous literature is the attitude teachers hold toward these programs and the impacts these attitudes have on successful implementation.

Purpose Statement

The purpose of the current study was to explore teachers' perceptions of integrating physical activity into the classroom setting and the impact these perceptions have on successful program implementation and, by extension, academic achievement.

Need for the Study

Physical exercise programs have shown a positive impact on classrooms regarding academic achievement in previous literature, so there lies the question: why isn't every classroom doing it? This study helps to identify the role that the teacher plays in the successful implementation of the physical activity programs. The findings may act as a guide for what teachers can improve on to help their students academically and physically, which is a necessity for a developing child.

Research Question

Regarding elementary general education teachers whose classes have shown a positive correlation between physical movement and academic achievement, the question becomes what perceptions do these teachers hold about movement in the classroom and what impact do these perceptions have on successful program implementation? This research study explored the attitudes that elementary school teachers have on the physical activity programs tied to academic achievement within their classrooms.

Literature Review

Introduction

The purpose of this literature review is to identify and analyze the established relationship between physical activity programs and their effect on academic achievement. Physical activity programs can be defined as movement of the body that requires energy expenditure in addition to and aside from the already programmed physical education implemented within the curriculum. According to personal observations done in schools, early elementary school children who do poorly academically also appear to be restless, have a low attention span, and contain a lack of energy during class time. Research exists demonstrating that implementing physical exercise programs into every day classrooms boost productivity and promote academic achievement. My goal by the end of this study is to demonstrate how the presence of physical activity programs in some form or another positively impact the academic achievement of public elementary school children.

Throughout this review, I will highlight the three major themes I have found to play a large role in the implementation of physical activity programs and their influence on academic achievement. These themes have been analyzed through assessing which contributing factors seemed to appear the most within each of the 14 articles reviewed. The three themes that will be discussed in greater detail throughout this review are: The Importance of General Participation, The Differentiation of Instruction, and The Effect of Intensity Levels.

The Importance of General Participation

The initial theme presented in the literature was the significance of simply any participation in a physical activity program. One study examined whether regular physical activity and proper nutrition together had a significant effect on academic achievement. It was

found that the active, healthy nutrition group scored higher on reading, math, and science standardized achievement tests scores (Asigbee, Whitney, & Peterson, 2018). Ultimately this can be used to suggest that being active in general can result in higher test scores. In Ayers (2010) study, he studied public school children in the Northeastern United States and discovered physical activity could have positively influenced academic achievement by improved concentration, classroom behavior, mental health, self-esteem, and cognitive function. This provides direct evidence of categories that improved based on the engagement in physical activity. Another study, while it found a small significant benefit, showed that there was no harm in doing physical exercise, even where there was no overwhelmingly significant benefit present (Carlson, Fulton, Lee, Maynard, Brown, Kohl, & Dietz, 2008). This can be used to suggest the incorporation of physical activity programs in all classrooms since no threat is to come of it. Additionally, by having promoted fitness by increasing opportunities for physical activity during PE, recess, and out of school time, this study found that the odds of passing both the MCAS Mathematics test and the MCAS English test increased as the number of fitness tests passed increased (Chomitz, Slining, McGowan, Mitchell, Dawson, & Hacker, 2009). The out of school time component reveals that any additional implementation can increase proficiency in the classroom. London and Castrechini (2011) observed that the threat of achievement gaps developed when they compared those who were persistently fit to those who were persistently unfit. They revealed disparities in both math and English language arts test scores. The achievement gap creates a need for students to in some way incorporate additional physical activity. Lastly, this study focused on whether physical exercise taught by specialists contributed to academic development in elementary school children more than PE taught by general classroom teachers and although they found greater improvements in numeracy and writing

scores, it was not largely significant compared to that of a general education teacher. (Telford, Cunningham, Fitzgerald, Olive, Prosser, Jiang, Telford, 2012). This suggest that the need for a professional is not absolutely necessary and that a general education teacher can have a useful impact as well. These combined contribute to the larger theme that simply being engaged in a physical activity program either shows significant benefits or presents no harm at all, exhibiting the importance of initial implementation among classrooms. The next theme will discuss the types of implementation that tend to pay off more than others.

The Differentiation of Instruction

While it's been presented that merely participating in a physical activity program is of great influence, it's important to acknowledge the different kinds of instruction discovered throughout the literature. Bradley, Keane, and Crawford (2013) investigated an Irish secondary school that found promoted participation in school sport and access to a range of team and individual sports throughout the secondary school years may have been a beneficial way to improve students' Leaving Certificate results. If schools aim to increase proficiency in exit exams, physical activity can be incorporated. A different study found that through fitness field tests, specifically aerobic capacity was positively associated with achievement (Castelli, Hillman, Buck, & Erwin, 2007). To more directly impact achievement, this study can serve as an argument for the use of aerobic exercise. This study specifically looked at the effects of resistance exercise and whether or not it influenced academic achievement, more or less than aerobic or non-exercise. It found that aerobic and resistance exercise improved students' math performance (Harveson, Hannon, Brusseau, Podlog, McMullen, & England, 2016). While it's important to acknowledge the increase of test scores, it's also important to note non-exercise is less proficient than either aerobic or resistance exercise. Lastly, one study used TAKS and

FITNESSGRAM to assess. They found that in all fitness variables, despite BMI, there were positive associations with academic performance and emphasized cardiovascular fitness (Van Dusen, Kelder, Kohl, Ranjit, & Perry, 2011). This study can be used to incorporate cardio in order to perform better academically. The unity of these varying studies lies in the idea that while general participation is of importance, physical activity programs can be used to target specificities and project certain goals. My last theme will address the differing intensity levels of physical activity programs and the type of impact they have.

The Effect of Intensity Levels

As acknowledged, general participation is of importance, differentiation of instruction exists to project alternate outcomes, but left to be discussed is the levels of intensity physical programs can incorporate to affect higher success of implementation. One study found that their control group that received four PE sessions/week of high intensity had an increase in all the variables (non-verbal and verbal ability, abstract reasoning, spatial ability, verbal reasoning and numerical ability) except for verbal reasoning (Arday, Fernández-Rodríguez, Jiménez-Pavón, Castillo, Ruiz, & Ortega, 2014). This acts as an argument to double the usual two sessions per week standard. Another study assessed the impacts of two physical activity programs (100-mile club or Just Move) on children's moderate to vigorous physical activity (MVPA). They added the fact that fewer than half of all children receive the recommended 60 minutes per day MVPA and emphasized it's of great importance to children to not only meet that but attempt to succeed it (Wright, Duquesnay, Anzman-Frasca, Chomitz, Chui, Economos, & Sackeck, 2016). This study raises an important question: if a standard quota exists, why is it not being met? In this study, the PE level was increased from 60 to 200 minutes per week, and their results were compared to the standard. They found that increasing weekly PE over nine years

was associated with improved academic achievement in boys (Cöster, Fritz, Karlsson, Rosengren, & Karlsson, 2018). There was no negative impact for girls, so no argument was present for the time frame to not have been increased. Lastly, through implementation of SPARKS (Sports, Play, Active Recreation for Kids) curriculum, this study revealed that despite devoting twice as many minutes per week to PE, it did not interfere with academic achievement negatively (Sallis, McKenzie, Kolody, & Lewis, 1999). This can eliminate the stereotype of too much time is spent on physical education, if one is present. The commonality among these studies is that general participation can be expanded to higher intensities and increased minutes to benefit youth without the fear of interference present.

Conclusion

A thorough review of the literature undoubtedly revealed the positive relationship between physical activity programs and academic achievement such that as a form of physical activity increased, a form of academic achievement increased or did not inherently negatively impact achievement. The three evident themes discovered provide good reasoning to incorporate physical activity programs within classrooms to promote academic achievement whether it's an initial interaction, a complex form of instruction, or an increased level/time standard of implementation.

While literature exists to answer what's been reviewed, a clear gap is present regarding general education teachers' perceptions of integrating physical activity into the classroom setting and the impact these perceptions have on successful program implementation and, by extension, academic achievement. Further research can assess this to better understand the role a general education teacher has or can have on the achievement of their students through successful PA

programs. It is in the hands of future educators to work towards increasing the academic achievement of their students, which could arguably be done through partaking in PA programs.

Methodology

Study Design

Using qualitative methods, observations and interviews, this study looked for how teachers feel about the physical activity programs tied to academic achievement they claim to incorporate. Qualitative methods were chosen for this study in order to get first-hand reports from teacher experiences and opinions. I focused on the phenomenological approach because I am taking the personal experiences of many teachers in order to make better meaning of my root research question.

Study Population, Sampling, and Participants

This study was conducted in public school sites in a semi-urban district in Southern California. The data needed to be collected from sites that included teachers actively incorporating physical activity programs within their classrooms who also believed said programs are associated with academic achievement within their students. Interviews and observations were used in order to collect the data. Observations were done prior to the interview to avoid bias. Since I was working with a very specific audience, I used the Criterion strategy to make selections. The process began by contacting the principal of each elementary school with an overview of the study and either obtaining consent or being denied continuing with the study. If the principal agreed, they would then pass on my message to the potential participants. The participants I chose are relevant to my study because they are teachers actively participating in physical activity programs that tie to academic achievement. This allowed me to identify whether the attitudes they held towards these programs affected successful implementation from a first-

hand look. I anticipated studying five to eight general education elementary school teachers with representation of multiple grades. I was able to work with four teachers, all in different grades. Participant CT has been teaching for six years and currently teaches fourth grade, participant EN has been teaching for four years and currently teaches third grade, participant CB has been teaching for 21 years and currently teaches first grade, participant NR has been teaching for 33 years and currently teaches second grade.

Data Collection and Analysis

The qualitative data for this study was collected over several months. Public schools were used because they are the majority which allows for more generalization based on my findings. Prior to conducting interviews or observations, the teachers were contacted via email to set up a time for the interview and observation based off of their availability. I conducted one 1-hour observation as well as one semi-structured interview with each participant. The length of each interview was dependent on the answers, they ranged from four minutes to nine minutes. To analyze my data, I recorded and transcribed interviews verbatim to ensure each interview was correctly analyzed, took notes throughout my observations so that I did not forget information and had material to refer back to, coded for emergent themes using constant comparative analysis in both interviews and observations similar to my literature review, and wrote up my findings using thick descriptions.

Mechanisms to Ensure Credibility and Reliability

In order to ensure the credibility and reliability of this study all interviews were recorded, contained the same 13 core questions (with one personal question based on observation), and were directly related to the topic. A relatively equal time was spent on each interview and classroom. During one of the observations I was only able to observe for 15 minutes due to an

assembly, however I have worked with her closely before, so I've observed her in action before and feel I did not miss out on anything. The results were based on direct responses from teachers in the study or behaviors I observed.

Ethical Considerations

To ensure this study is ethical the following was considered: I received informed consent from all participants before conducting any portion of my study. The school site will remain confidential and have been changed in the findings. The names of students and teachers have been changed to protect their identity. I have scientifically justified the inclusion/exclusion of specific populations, i.e. needing to examine specific classrooms and teachers to fit my research. I stuck to my commitment as a researcher/what my participants expected of me. Participants were able to opt out at any time and were notified as such (one did).

Results

There were four main themes discovered through this research: movement is important, the attitude towards physical exercise in the classroom is positive, physical activity should be implemented into activities, and valid limitations to physical exercise exist but it is worthwhile. This was done through highlighting key statements in each of the interviews, scanning for similarities, and organizing them into main concepts. I did not relate any of the themes back to previous literature because I felt as though there was such a gap, none of the information found could be linked to the former content.

Movement is Important

The first theme affirmed the idea that movement is important. Movement or physical activity programs can be defined as movement of the body that requires energy expenditure in addition to and aside from the already programmed physical education implemented within the

curriculum. I asked each participant to define what physical activity programs they incorporate in their classrooms. Participant CT said their class does PE in the morning, stretching in the classroom sometimes, organized games such as football, basketball, soccer, barnyard (sprinting), they have 21st century furniture such as wobble stools, yoga balls, cushions, they do wiggle breaks and guided dance practice videos (Go Noodle?). Participant EN said their class does Go Noodle and they have flex seating. Participant CB said their class does PE in the morning, “a lot of trying to cross the different spheres of [the students] brains at the same time such as coming in, doing something quiet, then doing something moving around,” Go Noodle used as a reward, “Utilize this when they’re going to explode and just have to have some type of release,” block walks, and centers using homogenous groups, such that “students” are paired with “teachers.” Participant NR said their class does PE in the morning, yoga, and stretching. They don’t have flex seating, but students are rarely in their seats due to being constantly engaged in an activity. Participant CT expressed that “movement is important, it helps with focus and helps students get their wiggles out.” The observation demonstrated that the teacher did not value movement, despite saying so. Participant EN expressed that “movement is important, it helps [students] minds get a mental break and get back on track so they can focus.” The observation demonstrated that the teacher for the most part valued movement. Participant CB expressed “for sure movement is important, [the students] will drive you crazy if they don’t get the wiggles out.” The observation demonstrated that the teacher strongly valued movement. Participant NR expressed that “yes, movement is important, just like adults, we need brain breaks. Our bodies also feel better with movement.” The observation demonstrated that the teacher strongly valued movement.

The Attitude Towards Physical Exercise in the Classroom is Positive

The second theme affirmed that the attitude towards physical exercise in the classroom is positive. Attitude can be defined as a settled way of thinking or feeling about someone or something, typically one that is reflected in a person's behavior. Positive can be defined as constructive, optimistic, or confident. I asked each participant to describe how they would say their students perform academically. Participant CT said, "I have a wide array, I can't say all of my students are straights A's, it just depends." Participant EN said, "This year's group is really high, one of the highest groups I've had here." Participant CB said, "I have a real diverse class, line down the middle not a whole lot in between, by the end of the year they'll be fine." Participant NR said, "Most of them make steady growth." I then asked their opinion of physical exercise in the classroom and how they believe it affected their students academically. Participant CT said, "Physical exercise is important, kids need to move, especially kinesthetic learners. Academically: physical exercise helps, [specifically] my ADHD students." Participant EN said, "I truly think physical exercise needs to be done, I do not do it as much as I would like to, I did with former classes, but it's harder with this one. Academically: it allows them to just clear their mind, I never really thought about a correlation to have them do better. It gives [my ADHD student] freedom to move." Participant CB said, "Physical exercise is great; I would love to incorporate it more like [another participant]. Academically: it's a moment of release, [they] are able to focus better and don't have as much inner distractions. I don't fight [my ADHD student] to sit still." Participant NR said, "I feel [physical exercise] is very beneficial. Academically: I think it helps [the students] to remain focused. Movement assists the brain, enhancing both hemispheres." The observations demonstrated that the attitude held towards both their students and physical exercise matched the behavior of the teacher for each participant,

except for participant CT because they did not demonstrate they valued movement in their actions. The general takeaway from all of this information is regardless of student's performance or the behavior of the teachers, movement was said to be valued and seen as positive.

Physical Activity Should be Implemented into Activities

The third theme affirmed that physical activity was thought to be better incorporated into activities rather than done during breaks. Implemented can be defined as to unite or work into something already existent so as to form an indistinguishable whole. I asked each participant to disclose where they believed movement belonged. Participant CT said, "Some activities allow movement and allow you to implement it, some don't." The observation demonstrated that the teacher does not implement physical exercise into activities despite acknowledging the opportunity to. Participant EN said, "If I was probably further along in my teaching career, I could probably implement it into actually a lesson." The observation demonstrated that the teacher does not implement physical exercise into activities and acknowledges their personal barrier. Participant CB said, "You need structured movement, guidance on how you would expect [students] to move and what that looks like in a class versus a playground. I think the more they can learn at the same time as moving they're making connections." The observation demonstrated that the teacher does implement physical exercise into activities. Participant NR said, "I use it for our PE program as well as implementing it into activities." The observation demonstrated that the teacher does implement physical exercise into activities.

Valid Limitations to Physical Exercise Exist but it is Worthwhile

The fourth theme affirmed that valid limitations to physical exercise exist, but it is still worthwhile. Valid can be defined as (of an argument or point) having a sound basis in logic or fact; reasonable. Limitations can be defined as a limiting rule or circumstance; a restriction.

Worthwhile can be defined as worth the time or effort spent; of value or importance. I asked each participant, for teachers who do not use physical activity inside their classrooms what they believe is preventing them from doing so and what they would say to a teacher who may be hesitant to using physical activity inside their classroom. Participant CT said, “Limitations: old school mentality, kids need to sit in their desks with their hands crossed and not move. Advice: It’s scientifically proven that kinesthetic learners perform better when they’re moving.” The observation demonstrated that the teacher does not follow own advice. Participant EN said, “Limitations: being able to get back on track without wasting educational minutes. Advice: I’d tell them to try it, plan for those extra minutes, maybe that’s what I need to do more.” The observation demonstrated that the teacher attempts to follow own advice. Participant CB said, “Limitations: a fear of losing structure.” They also gave an example of how classrooms can look well managed and quiet but there’s very little learning actually occurring, and students become terrified. “Advice: [PA] is really not anything to be afraid of, it’s okay to let go of a little control to gain more than you’re giving up.” The observation demonstrated that the teacher follows own advice. Participant NR said, “Limitations: there is a fear of the students getting out of control perhaps. Advice: set rules for physical activities, just as you do for all activities.” The observation demonstrated that the teacher follows own advice.

Discussion

Overall, based on the interview questions and observations taken, it could be concluded that the attitudes of teachers match the behavior of their students and their general academic level. Thus, acting as predictors of successful implementation of physical activities. Essentially, if a participant held a positive attitude and executed that through their actions, implementation was successful and contributed to student academic achievement, as well as vice versa, if a

participant held a negative attitude or they did not execute what they said to believe, implementation was unsuccessful and contributed to student academic achievement. Therefore, future teachers should learn to have a positive attitude in general, but especially towards physical activity, as physical activity is essential for the betterment of student performance.

I learned a lot from conducting this research. I learned to contact participants early, be persistent with them, and start to collect data as early as possible. I also learned that transcriptions were hardest part due to the time spent writing and coding. I also got to first-hand experience that people can be hypocrites. Participants truly want to sound good on paper and will tell you what they think you want to hear or the best answer, but conducting observations allowed me to reveal the validity of their beliefs and whether their routines matched their statements. Lastly, I learned that research truly is fun, when you choose a topic you're passionate about, everything eventually comes full circle, and to embrace the process just as much as the product.

I did have some limitations in my study. For example, getting my last interview was difficult. Teachers are very busy and college students are very busy and it was hard to find a time that worked for both of us. I eventually was able to get it done, in the midst of it all. I also tried to use two different sites, but the other school unexpectedly became unavailable due to a hacker overtaking the district's database. Some participants were also unreliable, I planned to have a fifth interview, however the teacher became unreachable post-observation. I also learned that female teachers are a lot more common, I would have preferred to have a little more variety in my participants. However, if I had to do this again... I would probably do it just the same, I'm happy with my results.

My recommendations for future research would be to use more males, ask what each teacher defines as physical activity inside the classroom instead of just if it's important and what kind they do, and I believe my findings are mostly implied, so this could be done quantitatively to achieve statistical confirmation.

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Appendix A: Gatekeeper Letter of Consent

[PLACE SCHOOL LETTERHEAD HERE]

To whom it may concern,

Callee Savage is an undergraduate student at the University of Redlands. She has proposed a research project as part of her senior capstone seminar in Liberal Studies. The research project is entitled: A Qualitative Phenomenological Study on the Impact of Teacher Attitudes on Physical Activity Programs tied to Academic Achievement in the Elementary School Classroom. I understand that, pending approval, all data for this study will be conducted during the fall of 2019.

I am aware that this project involves teachers in our district and will be conducted in a setting of the teacher's convenience, outside of class time in a way that does not interfere with any instructional time during the school day. I also understand that data collection will involve teacher interviews to be conducted in the natural setting of the school where the participants work and will be used to gain insight on the impact of teacher attitudes on physical activity programs tied to academic achievement. Observations will also be used to triangulate the interview data and provide further information for the study. A sample size of 5-8 participants is sufficient to meet the qualitative needs of the study and to examine teacher perspectives on the research subject because the researcher is targeting a small population.

I understand that participant participation is voluntary and that participants are free to withdraw from the study at any time. All data collected by the researcher will remain confidential according to the strict confidentiality guidelines of the University of Redlands Institutional Review Board. I also understand that this research will be conducted under the supervision of Dr. Marina Gillmore, faculty sponsor of the research.

I support these planned activities which involve the full consent of all participants in a professional manner.

Sincerely,

*[Signature of Gatekeeper]*_____

[Name and Title]

Appendix B: Participant Consent Form



Consent to Participate in a Research Study
(For use with adult subjects only)

What follows is a consent form that explains what will be happening if you choose to participate in this research study. The first section (Investigator Information) should have been completed by the investigator. If this section is incomplete, do not continue with the study. Because this study is being used for the sole purpose of class and program completion, full IRB approval was not required. The information you need to provide begins on Page 2. Please read each section carefully.

Investigator Information (to be completed by Principle Investigator)

IRB approval number: N/A – Data only being used for the purpose of course and program completion

Title of project: The impact of teacher attitudes on physical activity programs tied to academic achievement in the elementary school classroom.

Name of principle investigator (PI): Callee Savage

Email of PI: Callee_Savage@redlands.edu

Telephone number of PI: 909-553-9693

Department or major of PI:

Position held by PI:

- faculty
- administrator/staff
- student

If PI is a student or staff, complete the remainder of Investigator Information, otherwise go to next page.

Name of faculty or administrator sponsor: Dr. Marina Gillmore

Department or office of
sponsor:

Liberal Studies

Position held by
sponsor:

faculty

administrator

General information about this study

You are being asked to participate in a research study. Whether you do is entirely up to you. You may refuse to participate, or you may stop participating at any time for any reason without any penalty.

The purpose of this qualitative phenomenological study is to explore teachers' perceptions of integrating physical activity into the classroom setting and the impact these perceptions have on successful program implementation and, by extension, academic achievement.

You are being asked to participate in this study because you are currently teaching in an elementary classroom in Southern California that incorporates physical exercise.

How long this will take (i.e., duration of participation)

If you choose to participate in this study, your involvement will take about 15-20 minutes to conduct an interview. I will be observing up to an hour of your class.

What will happen if you participate in this study

If you wish to participate in this study you will be asked to partake in an interview consisting of 12 questions. Your personal information will never be revealed at any point in the process. If you feel the need to back out, you may do so at any time without penalty.

Audiotaping

You will be audiotaped.

Protecting your privacy

In order to ensure that my study is ethical I will complete the following steps. Every interviewee will be provided a consent form before their interview takes place. At this time, they will also be told that they are able to withdraw at any time. If at any response a participant can no longer provide their responses, they have every right to end the contract and walk away from the study. All participants and school will remain confidential in the collecting and reporting out of data. No one in the study will be given compensation for any reason. All of the interview questions and explanations of the study will be straight forward. I will give any and all information upfront if the participant needs it. I will keep the same interview processes for all participants, so no one is given a special treatment over another.

People who participate in this study will not be identified in any report or publication about this study. Although every effort will be made to keep the research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is unlikely to happen, but if disclosure is required, the investigator will take whatever steps are allowable by law to protect the privacy of your personal information. In some

cases, your information in this research study could be reviewed by representatives of the University of Redlands, research sponsors, or government agencies for purposes such as quality control or safety.

What will happen if you experience any problems or discomforts during or after your participation

It is possible that there are unknown risks or discomforts. Please report any problems immediately to the researcher.

Anything you do, including participating in research, carries with it some chance that something problematic or unwanted may happen. Although the researcher may direct you to medical, psychological, or other services, any costs related to such problems are your or your insurance company's responsibility.

Questions about this study

You may ask and have answered any question about the research. If you have questions or concerns, you should contact the Principle Investigator (PI) or faculty or administrator sponsor (if the PI is a student).

Participant's Agreement

I, _____ ,
Print Name Above

have read the information presented above. I have asked all questions I had at this time. I voluntarily agree to participate in this research study.

Signature of Research Participant	Date

To be completed by researcher:

Print Name of Person Obtaining Consent

Signature of Person Obtaining Consent	Date

Appendix C: Research Questions

1. What grade do you teach?
2. How long have you been teaching?
3. Do you believe movement for elementary school children is important? Why or why not?
4. Do you utilize physical exercise inside your classroom?
5. If so, what kinds? If not, why not?
6. What's your attitude towards physical exercise inside classrooms?
7. Where do you believe movement belongs, during breaks, or implemented into activities?
8. How would you say your students perform academically?
9. How do you think the use of physical exercise inside your classroom affects your students academically?
10. If positive, could you tell me what you believe contributes to that?
11. For teachers who do not use physical activity inside their classrooms what do you believe is preventing them from doing so?
12. What would you say to a teacher who may be hesitant to using physical activity inside their classroom?
13. Question based on observations:
 - Can you explain the presence of your student teacher/what role he has in your class?
 - How have you adapted your classroom to fit the needs of your autistic student?
 - Is the points system mandatory for teachers to use, if not, what led you to use it so frequently? (Do they actually do nap time?) (What is "fun Friday"?)
 - Did I miss any of the activity you instructed?
14. Is there anything else you would like to add?