



Elementary Generalists' Perceptions of Integrating Physical Literacy Into Their Classrooms and Collaborating with Physical Education Specialists

Perceptions des enseignants de l'élémentaire de l'intégration du savoir-faire physique à leur enseignement et de la collaboration avec les spécialistes en éducation physique

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Physical education class and other physical activities at school are key places for children to develop physically literacy. Discrepancies concerning who should teach physical education at the elementary level exist across Canada. Some provinces have elementary classroom teachers (i.e., generalists) teaching physical education, while others employ physical education specialists at the elementary level. Furthermore, generalists have reported being overwhelmed with pressures to prepare their students for standardized tests. Physical education specialists have reported feelings of isolation (Foran, 2006; Becky, 1995), but little research has investigated how elementary generalist teachers perceive recent curricular mandates to incorporate physical literacy concepts into their classes. Therefore, the two-fold purpose of this study was to, 1) Explore elementary generalists' perceptions related to integrating physical literacy concepts into their classrooms; and 2) Explore elementary generalists' perceptions related to collaboration with physical education specialists. Interviews with five elementary generalists were coded and data were analyzed using inductive content analysis. Perceived barriers to implementing physical literacy in the classroom and collaborating with physical education specialists emerged. Responses also indicated a sense of hopefulness regarding the value of integrating physical literacy into elementary classrooms and greater collaboration with physical education specialists.

Les cours d'éducation physique et les autres activités physiques offertes à l'école sont des endroits privilégiés pour l'acquisition du savoir-faire physique chez les enfants. D'une région à l'autre du Canada, les opinions varient à savoir qui devrait enseigner l'éducation physique à l'élémentaire. Dans certaines provinces, les cours d'éducation physique sont confiés aux enseignants titulaires alors que dans d'autres, cette tâche revient, dès l'élémentaire, à des spécialistes en éducation physique. Par ailleurs, les titulaires disent que l'obligation de préparer leurs élèves en fonction des tests standardisés leur impose une énorme

pression. Pour leur part, les spécialistes en éducation physiques affirment se sentir isolés (Foran, 2006; Becky, 1995). Peu d'études ont été menées pour voir ce que pensent les titulaires de l'élémentaire du nouveau mandat des programmes-cadres visant à intégrer les concepts du savoir-physique physique à l'enseignement.. Cette étude avait donc deux objectifs, soit : 1) Examiner les perceptions des titulaires de l'élémentaire de l'intégration du concept du savoir-faire physique dans leur enseignement de l'éducation physique; et 2) Examiner les perceptions des titulaires de l'élémentaire de la collaboration avec les spécialistes en éducation physique. Les entrevues menées avec cinq enseignants titulaires de l'élémentaire ont été codées et les données soumises à une analyse de contenu inductive. Cette analyse a fait ressortir une série d'obstacles susceptibles de nuire à l'intégration du savoir-faire physique et à la collaboration avec les spécialistes en éducation physique. On a également décelé un certain espoir en ce qui a trait à la valeur qu'il pourrait y avoir à intégrer le savoir-faire physique et à favoriser une plus grande collaboration avec les spécialistes en éducation physique.

Elementary generalists' perceptions of physical literacy

Physical literacy is the focal concept of the study upon which this article draws. The following definition was developed by Canadian physical education professionals and endorsed by Physical and Health Education Canada. It was utilized throughout the following study. "Individuals who are physically literate move with competence in a wide variety of physical activities that benefit the development of the whole person"(Mandigo, Francis, Lodewyk, & Lopez, 2009, p. 1). Further,

Physically literate individuals continually develop the motivation and ability to understand, communicate, apply, and analyze different forms of movement. They are able to demonstrate a variety of movements confidently, competently, creatively and strategically across a wide range of health-related physical activities. These abilities enable individuals to make healthy, active choices throughout their life span that are both beneficial to and respectful of themselves and others. (Mandigo, Francis, Lodewyk, & Lopez, 2009, p. 1)

Who is best prepared to help our children develop as physically literate people? The goal of developing physically literate students involves important responsibilities for physical education specialists (i.e., those who are certified in their province to teach physical education) in terms of helping students develop confidence, competence, and creativity across a variety of movements. As well, elementary teachers contribute to the development of their students' physical literacy when they incorporate movement knowledge and motivation to move into the classroom. Discrepancies concerning who should teach physical education at the elementary level exist across Canada. Some provinces have elementary classroom teachers (i.e., generalists) teaching physical education, while others employ physical education specialists at the elementary level. It seems a reasonable assumption, given the physical education teacher education preparation guidelines throughout the country, that physical education specialists have expertise in the teaching of physical literacy concepts. If generalists are teaching physical education, it is important that they are prepared. There is evidence that physical education specialists should [and do] teach concepts that

are integral to physical education and help students develop as physically literate people (Martin, 2006; McKenzie et al., 1995; Whitehead, 2001; Whitehead & Murdoch, 2006; Whitehead, 2007). These findings seem to suggest that psychomotor elements of physical literacy will be addressed most thoroughly by PE specialists. There are however multiple opportunities for elementary generalists to integrate cognitive, affective, and psychomotor components of physical literacy into their curriculum, regardless of whether their province provides support for elementary specialists. Moreover, physical education specialists have reported feelings of isolation (Foran, 2006; Becky, 1995), but little research has investigated how elementary generalist teachers perceive recent curricular mandates to incorporate physical literacy concepts into their classes.

Why should elementary generalists promote physical literacy concepts into their teaching? Elementary teachers have many opportunities to include physical literacy in their classes. In contrast to physical specialists who may see students ranging from one to five periods of 30 minutes per week, classroom generalists spend the majority of the day with their students, and teach a multitude of activities using a variety of teaching strategies. With some planning and preparation, physical literacy concepts may be integrated into academic subject areas. As well, when a Comprehensive School Health policy or related school and/or board based policy is introduced into the school program, it is the responsibility of the teacher to carry it out.

A Comprehensive School Health model: The conceptual framework for this study

Models of Comprehensive School Health (CSH) have become increasingly popular in Canada. The vision behind the model is that health is promoted in a holistic approach throughout the school. The CSH model (figure 1) illustrates that there are four main pillars involved in addition to the home and community: (a) social and physical environment, (b) teaching and learning, (c) partnerships, supports, and services; and, (d) healthy school policy (Joint Consortium for School Health). An important concept such as physical literacy within comprehensive health cannot be addressed in a single area (teaching and learning in physical education classes), but needs a coordinated approach across all four pillars - classrooms, the school environment and beyond, into the community. Without such a four-pronged approach, students may miss opportunities to develop as physically literate people. While there is more responsibility on the part of the classroom teacher to contribute to physical literacy when such a model is adopted by a province or school board, the model also serves as a logical framework for schools seeking a process to reach improvement goals focused on the health of their students. Information from this study may help inform provincial, school board or school-based decision-makers who choose to mandate such a policy.

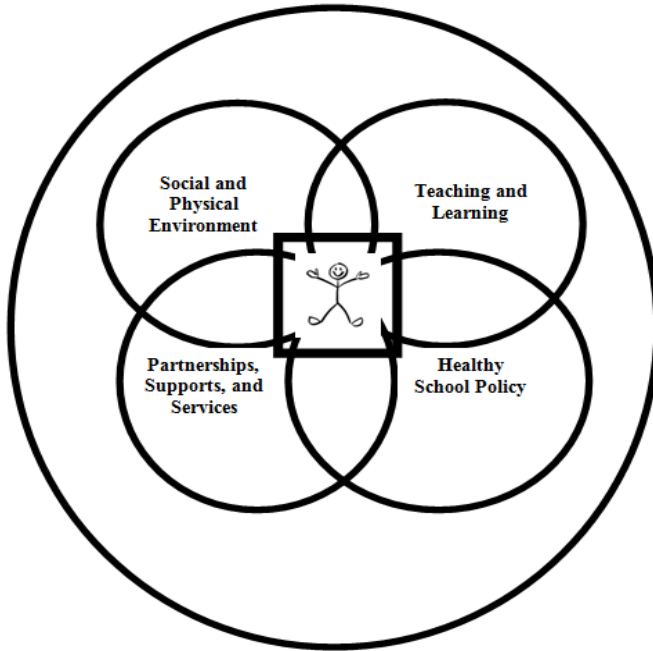


Figure 1. Comprehensive school health model (Joint Consortium for School Health)

Physical literacy is an integral part of Comprehensive School Health. The primary goal of physical literacy, to “make healthy, active choices throughout their life span that are both beneficial to and respectful of themselves and others” (Mandigo, Francis, Lodewyk, & Lopez, 2009, p. 1), is clearly an important desired outcome of the model. There is currently no research documenting the extent to which elementary generalists are integrating components of physical literacy into their classrooms.

As the model indicates, classroom teachers have a responsibility to contribute to their students’ development in the area of comprehensive health regardless of whether they are also responsible for teaching physical education to their students. Given the holistic approach to the CSH model, and understanding that generalist teachers have reported feeling stressed and overwhelmed (Kyriacou, 2001; Lath, 2010; Murphy et al., 2008; Ravichandran & Rajendran, 2007), if elementary physical education specialists are available collaboration should occur with classroom generalists. In some provinces of Canada, classroom teachers are expected to incorporate Daily Physical Activity (DPA) and/or health education into their curriculum¹. With the support of the physical education specialists, there could be a shared approach to addressing physical literacy concepts through DPA and health in classrooms. In this way, all four pillars of the CSH model are addressed in the school.

The elementary classroom teachers who participated in this study were not responsible for teaching the physical education curriculum in their schools. In the province in which this study took place, physical education specialists teach physical education. The participants in this study for the most part teach in a school board where classroom teachers deliver health at the elementary level and physical education specialists deliver physical education. There is also a Healthy Active Living Consultant with the board who supports physical educators in the schools through professional development, grant writing initiatives, and so on. None of the participating schools had implemented a Comprehensive School Health plan. As teacher educators, (one a physical education specialist, one a generalist) we were interested in finding out how much generalist elementary teachers understood about physical literacy as an aspect of healthy living, and the extent to which they might collaborate with their physical educator colleagues to engage their students in a range of healthy, active living practices. Therefore, the purposes of this study were to,

- 1) Explore elementary generalists' perceptions related to integrating physical literacy concepts into their classrooms;
- 2) Explore elementary generalists' perceptions related to collaboration with physical education specialists.

Method

Participants and setting

After appropriate ethical permissions were received, participants were recruited through emails from the primary investigator of the study. In sending invitations to participate, care was taken to offer the invitations to teachers who varied in years of teaching experience, the grades they usually taught, their gender, and their familiarity with the area of physical education. Six invitations were sent and interviews were scheduled for five participants once they agreed to participate, after being informed of the details of the project. Participants chose the time and location of the interview, often their own classrooms upon completion of a school day. Interviews were recorded using an electronic transcribing recorder.

The one male and four female participants in this study were all white elementary classroom teachers (this ratio is representative of the gender ratio in elementary schools in this area) whose years of teaching experience ranged from 4 to 32 years. Three participants had at least one course during their pre-service education related to physical activity (not physical education). Four of the participants have or are working on graduate degrees unrelated to physical education. All five of the participants identified themselves as being somewhat physically literate. Four of the participants taught for the same school board but only two taught in the same school. Respective teaching responsibilities at the time of the interviews included: grade primary (kindergarten) French immersion, grade four, grade three, and grade one/ Reading Recovery. The fifth participant recently had taught grade four for several years in a Middle Eastern country and was a full-time graduate student in elementary education at the time of the study.

Data Collection and Analysis

Qualitative data were collected via semi-structured interviews (Bogdan & Biklen, 2003) and inductive content analysis was utilized (Creswell, 2007). Each participant was interviewed in a one-on-one setting and interviews ranged in duration from 55 minutes to 80 minutes.

Prior to the interview, participants were given the definition of physical literacy (Mandigo et al., 2009) as well as a page of rationale for the definition. Participants were told they could write on the page of paper, circle things that stood out to them, and given as much time as they required to think about the information and to ask questions. As well, participants were told they could interrupt the interview at any time in order to revisit the definition and/or corresponding rationale or to ask more questions. When the participants felt they had enough time to read and understand the definition, they alerted the primary investigator of the study who then began the conversational part of the interview. The interviewer had established a positive relationship with the participants during previous informal interactions as all live in a rather small community. The researcher asked questions to start the dialogue, and welcomed additional comments from the participants, in an effort to keep the interview informal (Bogdan & Biklen, 2003). Examples of interview questions included: 1. Considering the concept of physical literacy, would you be willing to address it within your classroom? Do you do it now? If so, how might you implement physical literacy? If not, why do you think this is? 2. Can you imagine how, in collaboration with the physical educator at your school, you could plan for opportunities that foster students' experiences related to their development as physically literate people? Do you do it now? If so, how? A complete list of interview questions may be found in Appendix A.

Interviews were transcribed by the primary researcher, pseudonyms were assigned, and a coding process using inductive content analysis, beginning with interpretation of the raw interview data, then broadening to several specific themes, and on to more general themes (Creswell, 2007) was followed. These were implemented to serve as a guide and for data reduction (LeCompte & Preissle, 1993). Common categories were determined and potential higher order themes were highlighted.

In order to ensure accuracy of the data, participants were sent their transcribed interviews electronically. They were given two weeks to review their interview transcript and invited to go over anything they disagreed with, changed their mind with, or wanted to talk about at greater length. All five participants responded to this email and reported that they were satisfied with what they read in their transcription and that there was no need for further discussion or for edits to their transcripts. In order to enhance the trustworthiness of the data, the co-researcher read and coded transcriptions independently. Finally, a graduate student in physical education who had no knowledge of the study served as an independent reader and re-read the coded transcripts to check for consistency.

Findings

Purpose 1: Elementary Generalists' Perceptions of Physical Literacy

It would be easy to assume that elementary generalists who deem themselves somewhat physically literate are committed to a model such as the CSH model, and that they understand the concepts of physical literacy to be

important throughout the school. Yet it quickly became apparent that participants struggled to implement concepts of physical literacy in their teaching. Questions related to integrating components of physical literacy into classrooms prompted teachers to report perceived barriers as well as suggestions for policy makers, even though they spoke in a tone of hopefulness related to their enthusiasm for physical literacy and its importance in the development of the whole child.

Theme 1: Perceived Barriers to Teaching Physical Literacy Concepts

Perceived lack of education / professional development opportunities An important aspect of the CSH model is the partnerships, supports, and services pillar. This pillar represents recognition of the need for a collaborative approach to develop a school/community-wide focus on health and healthy lifestyles. All participants in the study spoke about the need for more information relating to strategies for teaching physical literacy concepts to children in a classroom space. It was clear that although they believed they were somewhat physically literate themselves, they would need considerably more knowledge to prepare and plan to effectively teach children how to develop as physically literate people, as the following transcript excerpts illustrate:

I think that's going to require a lot of education [to integrate physical literacy into my classroom]. Because you know, I have a textbook that I can draw from – I have some resources but I think that teachers are going to need to know the difference between them [physical activity, physical literacy, physical education]. (Sara, p. 32)

You know, even though I do little things, do I think that I implement concepts that help students develop their physical literacy now? No. Like I talk a bit about ... we have a lot of conversations – they know I eat healthy and when I see healthy snacks in their lunches I'll say – that's great – I don't – if they have chips – I don't say anything about it – but.... I would love to - I would just like more resources or the know how – like, the education.... (Katie, p. 26)

These comments reveal Sara's and Katie's desire to learn more about physical literacy and how to incorporate it into their classrooms, as well as their uncertainty about their knowledge and competence in this area. Despite reassuring self-assessments of personal physical literacy and the provision of time to allow questions and explanations related to physical literacy before interviews began, these responses suggested that these teachers were not knowledgeable about the topic. This indicates that concepts associated with physical literacy, like concepts associated with many other school topics, are complex, and teachers who wish to introduce effective physical literacy learning into their classrooms need professional preparation in order to support children's development as physically literate people. The partnerships, supports, and services pillar of the CSH model provides meaningful professional development opportunities for teachers who wish to learn more about teaching physical literacy concepts.

Perceived priority placed on subjects that have standardized tests The participants worried that commitments in other subject areas may hinder their abilities to address physical literacy in their classrooms. The participants in this study consistently spoke of feeling pressure for students to succeed, particularly in subjects that have standardized tests. Katie explained,

Grade 3 is a really hard year because at the beginning of the year they write Language Arts assessment – provincial – and at the end of the year they take a math assessment – provincial. So those are the things that definitely don't go. They can't...It's just so important. (p. 20)

When some elementary classroom teachers tried to incorporate structured opportunities to foster elements of physical literacy, they were met with roadblocks.

A colleague of mine, a grade 4 teacher, put it (daily physical activity) on her Schedule...[if] we added 20 minutes to the school day it would have worked great. But when she submitted it to the office they said, you're going to have pull that out and integrate it into other subject areas...But, if you do it with your math that's okay but it has to be called math. (Sara, p. 32)

Sara's comment reveals a dilemma for elementary generalists. A tight daily schedule does not allow teachers to introduce another topic such as Daily Physical Activity (DPA). Teachers find themselves having to prioritize some subject areas (*[if] we added 20 minutes to the school day it would have worked great*), and to eliminate or alter others (in this case, physical activity), integrating it with other subject areas and concealing its name and purpose (*If you do it with your math that's okay but it has to be called math*).

Perceived lack of time Related to the seemingly low priority of physical literacy is a correspondent time crunch. Finding time for activities through which students might become more physically literate seems to be a continuing challenge. All participants in this study spoke about good intentions to integrate concepts of physical literacy into their classrooms but these statements were shortly followed with a sincere concern about how they would find time to do so.

I would love to take them outside more than I do. Right now (another teacher) and I do take them out sledding every 2 weeks. The school has sleds provided so we go out back to the hill. But I do find we are slack going out to play different games just because we are so rushed to cover so much... it's hard to find the time to go out and play a game. (Lisa, p. 30)

Katie agreed that time was an issue when she tried to include additional aspects of physical literacy as well as health outcomes that were part of the required physical education curriculum.

There's just not time (to incorporate elements of physical literacy into my classroom). So, I find that is a huge drawback- there is just not the time. My grade 3 class is scheduled (for PE) 3 times a cycle for 30 minutes and I know that PE and health are combined togetherso you are supposed to make up (health) in your classroom but the health outcomes – there are so many health outcomes that you have to cover that you can't get that daily physical activity as part of physical literacy. (p. 20)

Perceived lack of resources / space All participants commented that their facilities, especially during the winter months, truly hindered their ability to integrate components of physical literacy into their classrooms. Furthermore, Danny felt that decision makers did not always provide adequate support for new curriculum implementations, such as the requirement in some provinces for daily physical activity.

What bothers me about politics is that they will say that (we need to provide opportunities for students to be active) as a politician but they will not give us the funds needed to make sure that children are very active....But many

times, for example, we do not have the facilities. I always say if you build the facilities they will come. Governments always say we do not have the money for that. Do you want them healthy and active or not? (p. 26)

Katie explained more specifically that many components of physical literacy cannot be addressed in a small area such as her classroom, and locating larger spaces in her school seemed impossible.

SIGH! The classrooms are so small with so many students jammed in with their desks. Like, we've (teaching staff) talked about having more PE time but there is just not the space. The gym now is always split into two and there are always two classes going at all times – so even if they wanted to have – you know – hire an extra PE teacher so the student could get more there is no space. Right now, they have the music teacher in a multi-purpose room – they have some resource teachers in former closets. There is just no space. When they designed these schools...I don't know if they talked to teachers. (Katie, p. 26)

Physical activities in the classroom were a problem for Lisa as well,

Our classrooms are limited so there are lots of things that kids can trip on and fall on and we don't have access to the gym because it's such a big school that the gym is constantly busy and we can't do huge physical activity things in our classroom.... You don't want them running in the classroom because you don't want them running in the hall (laughs). We say running is for the gym. So, when we do activities in the classroom we have to be sure that they are walking because we don't want them breaking school rules. (Lisa, p. 32)

Sara agreed,

I worry that a classroom wouldn't allow that [physical activity portion of physical literacy development] because there are lots of things in it already that would keep kids from moving around properly. So, I think that space wise – I'm wondering if schools aren't really allowing for that. (Sara, p. 33)

Weather The realities of harsh Canadian winters definitely played a part in the conversations surrounding the integration of physical literacy into classroom teaching. Sara pointed out,

So, if I have to do daily physical activity [an important contributor to physical literacy] with my classroom and something is already going on in the gym and it's minus 25 out, well, it's limiting our ability to do that. Especially if it's too cold or too stormy to go out...realistically, I won't do it. (Sara, p. 33)

Lisa pointed out that she was anxiously awaiting warmer weather, highlighting the obstacles faced with the cold winter months.

So, hopefully when the weather gets better – at least the outdoors is a huge play area that we'll be to use... Like, if we are doing shapes we'll sit or run in a circle outside or things like that. But, like I said, it's difficult to do in a classroom because you can't get a very big circle in here. (p. 32)

Teachers' perceptions of commitment / competence A CSH model, by its very name and nature, calls for a comprehensive approach to health and healthy active lifestyles. The collaborative nature of this approach creates challenges when teachers do not feel they are part of a cohesive group, committed to including physical literacy as part of a program to encourage healthy, active lifestyles for everyone in the school. Some participants in this study mentioned

that they did not think colleagues would integrate physical literacy into their classrooms for a variety of reasons. While they were respectful of other teachers, they observed a lack of willingness to incorporate elements of physical literacy into classrooms on the part of some. Lisa explained,

Some of the other teachers – maybe not so much [regarding integrating physical literacy in their classrooms]... A lot of them are stuck in their ways ... and physical activity [one aspect of physical literacy] was not a big thing back then...and, they may not feel competent enough to do it. Because, some teachers in the wing are not physically active people. (Lisa, p.34)

Sara's comments agreed with Lisa. She further explained how she felt some colleagues would refuse to teach physical literacy concepts even if they were mandated to do so.

I know one of my colleagues mentioned two years ago, she would have said flat out no I am not doing this because I don't have the confidence, because she was not physically fit to do it. Um, so that could be a barrier – a huge one – if teachers aren't committed. So, how do you get teachers (to be) committed is probably the biggest question because I think teachers are in positions often times of power inside a classroom. (Sara, p. 36)

The need for professional development in the area of team building, to cultivate a whole-school commitment to the CSH model, is apparent here.

It is for conditions such as these that the third pillar of the CHS model, featuring the development of partnerships, supports and services may be most useful. The development of partnerships with other community facilities, support from administrators, school boards and parents, and the sharing of services within the community all have the potential to ease the constraints experienced by elementary classroom generalists when they attempt to incorporate elements of physical literacy into their classrooms. A review of the themes relating to teachers' perceived barriers to teaching physical literacy concepts indicates that most point to the need for attention to this dilemma by policy makers at the provincial and school district level. It is one thing to promote or legislate a CSH model, and quite another to provide the necessary supports to implement it. Some factors, such as the desire to learn more about physical literacy, or strategies for implementing activity in the classroom are ones which teachers could request as part of their professional development.

Theme 2: Recommendations and Policy Suggestions for Successful Physical Literacy Integration within the CSH Model of this School Board

The following three recommendations arise out of the interviews as commonly stated ideas teachers felt would improve their abilities to integrate physical literacy in their classrooms.

Allocation of resources

Several participants felt encouraged to integrate physical literacy into their classrooms, but they would appreciate more resources to be available to them.

It would be nice to have a package or something laid out that says okay here are some great books that you can use or great activities – I know all the PE teachers get it – but I know the classroom teachers don't get it. So, unless you go looking for it you don't have it right at your fingertips. (Katie, p. 22)

Opportunity to observe others/ meet with others

All participants in this study spoke of the benefits of having time to meet with colleagues to share ideas and learn from one another.

I think that... it would be really beneficial to understand how other teachers have integrated – I think that's part of the way that I learn best – is seeing how other people have done it and seeing what they do. For me, that's what I would find really interesting and I would be really excited and I would like to do that. (Sara, p. 36)

Maintain/implement board level physical education/Health Active Living Consultants

Four of the participants in this study taught within the same school board. School boards in this province began implementing a policy of hiring Healthy Active Living Consultants four years ago. According to these four participants, the individual in this position has been a valuable resource and they would like this position to continue.

Well, I think that...you know one of the things that the board has done that has really helped is hiring the healthy active living coordinator – because before there wasn't a person to go to...there wasn't that person who could organize that stuff for you. But, now you can send out an email and he'll send something over. (Katie, p. 9)

The three policy suggestions above all link to the CSH model, which calls for adequate support and services both in schools and in the community in order for the model to be actualized. One goal of adopting the CSH model is to promote the physical literacy of students, but this will not be met unless teachers are supported in learning how to incorporate physical literacy into their curriculum.

Theme 3: Elementary Generalists' Hopefulness about Integrating Physical Literacy Concepts into Their Classrooms

While the task of addressing the perceived barriers and policy changes needed to enhance physical literacy learning in elementary classrooms may appear daunting, teachers were optimistic that change would occur, and that they would find ways to incorporate at least elements of physical literacy into their classes. The CSH model integrates home, school, and community, and in the following section it is possible to see the ways in which these teachers are drawing on home and community knowledge and experience of physical literacy as they begin, or continue to address physical literacy in their classrooms.

Interest in learning about effective integration of physical literacy

Participants reported an interest in integrating components of physical literacy despite the aforementioned barriers and suggested policy modifications.

I would look at it [incorporating physical literacy concepts] as something that - you know - this is something important and I would want them to be able to do. So I know, based on the type of person I am, that I would research it and I would figure it out and be able to do it.... (Sara, p.22)

Teachers value physical literacy, and a holistic approach to healthy active living
Participants who volunteered for this study, not surprisingly, spoke in a way that

demonstrated how much they value a holistic approach to healthy and active living.

To me, we somehow in the education system have to take those things [that form physical literacy] and we have to actually instill it in our population and of course, we have all agreed that the best place to instill that is youth, so that they grow up in a world in which all of those things are basically normal. We want them healthy and that they have to at a young age realize these are some of the very basic things and we should be doing them on a regular basis and taught how to do them properly, but seeing the benefits of it at a very young age.... If we can have science fairs then we should be having that, showing it is something that is absolutely a part of the school system. (Danny, pp. 14-15)

Participants also spoke about taking part in school-wide plans with a goal of providing more opportunities for students to be physically active. This seems to indicate the potential of the implementation of the CSH model in some schools, with a holistic focus on physical literacy gradually becoming a reality. It is hopeful as teachers are recognizing that students need to be healthy in order to have an optimal learning environment.

Our school is going through accreditation and what we had to do is highlight spots of need. We had to decide as a staff what we are lacking and what the evidence is showing us – and we had to pick our topics the other day and narrow it down. Two of the seven goals were around physical activity and questions around that and what could we do to get the students more involved. (Katie, p. 28)

Integration of physical literacy concepts is already occurring

Again, this is a hopeful sign that aspects of the CSH model are coming to life in some schools. Teachers shared examples how they, despite perceived constraints around resources and time, already incorporate elements of physical literacy into their classrooms.

I am always talking to them about being active and as they are leaving for the day I say now it is a beautiful day, make sure you get outside, make a snowman, play some ground hockey, building a cabin or whatever, I always try to remind them of this. In school, we spend a lot of time training the brain, which is great because we want our brain to be up, and going, thinking, that is why we do math. There is another part of the brain that wants you to read and another part that wants you to be active and the benefit of that is that it allows your heart and lungs to work properly and of course with that, we talk about bone growth and muscle growth and how important that is. (Danny, p.28)

The preceding sections illustrate how teachers are willing to invest time and energy to learn more about incorporating physical literacy into their classrooms, and how they see possibilities for growth in this direction in the school-wide planning in which they are involved, as well as in the attitudes they currently encourage in their classrooms. The possibilities that attention to physical literacy provides are visible here, as cooperation across schools and teachers making changes within classrooms can be seen as beginning steps to a fully implemented CSH model.

Purpose 2: Elementary Generalists' Perceptions of Collaboration with Physical Education Specialists

Effective Comprehensive School Health programs depend on school and community cooperation to succeed. Because the CSH model works best when classroom teachers and physical education specialists work together toward the goal of developing physically literate students, the interview questions for this study included questions about how classroom teachers experienced such collaborations. While the CSH model is not mandated in the province where this study occurred, several schools in the local board identify health and physical activity as part of their school improvement plans and identify such collaboration as critical for school goals to be reached. Participants in this study shared interesting insights into current issues around collaboration in their schools. While these elementary generalist teachers are not responsible for delivering the physical education curriculum, they responded to questions related to how potential collaboration, if possible, could aid in their pursuit of incorporating physical literacy concepts into their classrooms.

Theme 1: Perceived Barriers to Collaboration

Perceived unwillingness of physical educator to collaborate Unfortunately, the participants in this study did not feel that all physical educators are available or willing to collaborate.

I'm thinking back to the PE instructors that have been at the school and I know that they were not open to collaboration. I do remember wondering about learning a certain dance – I can't remember what subject it was – but we were wondering if he could teach them a certain type of dance. And he said, "No, no, no. I'm doing you know this and this at this time of the year" even though it was the school's philosophy to do this sort of collaboration. (Sara, p. 42)

As well, participants were discouraged when their physical educator did not meet the definition of a physically literate person.

It is disappointing when you do see the PE teachers in your school [who are] not physically literate. So of course they will not be taking that role on for the kids, like their responsibility to talk about their growth in that. We (classroom teachers) have taken it upon ourselves to plan things on our own. We plan our own fun day. (Chloe, p. 22)

Time / scheduling An opportunity to schedule meetings also emerged as a common concern related to collaboration meeting time.

The opportunity to communicate properly - the day is busy. In the school day, we seemed to have bigger blocks of time for more content stuff. Here, with storm days, those are such a disruption. That would be one barrier and making it a priority where the curriculum load is heavy, we are very outcome based and to balance it all is hard. (Chloe, p. 24-25)

While these perceptions may not be representative of all parties involved in a collaborative effort to meet the goal of developing physically literate students, they do provide some insight into why some classroom teachers have not progressed further in incorporating elements of physical literacy into their classrooms.

Theme 2: Recommendations and Policy Suggestions to Increase Collaboration

Schedule time Participants consistently suggested that some professional development time be allocated for teachers to talk together and to learn from one another strategies and practices for the development of physical literacy in their classrooms. Once again attention to the third pillar of the CSH model, the partnerships, supports, and services pillar, can be seen as imperative.

The only way it can happen again is if PE teachers and classroom teachers actually met and had discussions. We do not really do that much anymore. There are some wonderful minds out there, which are very creative. You would have to have the people whose minds traditionally think PE versus the minds that traditionally think language arts, math, and see the two together (Danny, p. 32)

Increase communication Specific examples of the essential nature of effective communication were given by participants.

It would be nice to know what kind of games she uses in the gym to work with them and then adapt them to the classroom where maybe you could change things around and make it an alphabet game in French or say a certain word...but, I would love to know what type of games she uses in the gym because the students would know the rules already by the time they got back [to our classroom]. (Lisa, p. 36)

Theme 3: Hopefulness Regarding Possibility of Greater Collaboration

It is encouraging that the study participants were optimistic that cooperation with physical education specialists could happen. If they did not already experience this kind of collaboration, they were willing to continue to work toward this goal in an effort to integrate physical literacy into their classroom. Participants were definitely open to the idea of approaching their physical educators despite concerns with communication in the past.

Oh yeah (I'd be willing to collaborate with our PE teacher), I'm in here every day at 7:30 and so is the PE teacher because we usually chat in the hall in the mornings. (Lisa, p. 36)

In some instances teachers are getting together already with their PE teacher or other elementary classroom teacher colleagues to provide opportunities for children to aid in their development as physically literate people.

Actually, we already work together. I mean, we have hopscotch mats coming in our classrooms next year to learn the numbers. So we do spend a lot of time trying to find physical activities – not so much with the PE teacher but (teacher across the hall) and I go through catalogues to find things ourselves... we are constantly looking for things for the classroom. (Lisa, p. 36)

While this section points to significant perceived barriers to collaboration between elementary generalists and physical education specialists in terms of communication and structure of the school schedule, there are also indications that teachers have specific suggestions about how to address these concerns. They are, in some cases, finding ways around the issues, by working collaboratively with other classroom teachers to implement practices aimed at developing physical literacy. The perceived barriers are indicative of how classroom teachers experience challenges. While they do not reflect the full story of challenges to collaboration in that we do not hear the physical education

specialists' point of view, they do seem to indicate a need for professional development that focuses on the communication between classroom teachers and physical education specialists, as part of a movement toward a Comprehensive School Health model.

Discussion

After examining the themes that emerged in this research, it is clear that participants desired resources and professional development opportunities related to integrating elements of physical literacy in the classroom. At this point, participants need more information and support to know how to make physical literacy come alive for their students. More resources are needed in addition to books, and educators need examples of what they might look like, and how they may be used (e.g., packets for organized games that reinforce positive skill development through differentiated instruction and opportunity to practice).

All five participants in this study considered themselves to be physically literate and reported they were currently incorporating, or have incorporated, some physical literacy components into their lessons. While these were hopeful signs, the examples given suggest that, at best, physical literacy components are barely being incorporated into classroom learning. When questioned about the types of physical activity offered, teachers responded with examples of movement throughout the classroom or a few activities such as jumping jacks when transitioning between content areas. This level of physical activity is light intensity of short duration. Physical activity for health benefit needs to be for much longer duration (20-30 minutes of moderate to vigorous intensities). Although these teachers were motivated, and valued physical literacy, they clearly were not able to access such necessary resources as teaching strategies, administrative support for space and time, and willing collaboration with physical education specialists to successfully provide opportunities for their students to develop as physically literate people.

Limitations

It is important to note limitations to the study's design in order to place the discussion into proper context. While five participants are an appropriate number of participants for a qualitative study of this design, the findings would have been more far reaching if the teachers were from a more diverse background – in terms of ethnicity and also teaching location. For example, all participants were currently teaching or studying in a province where certified PE specialists teach PE. As well, four of the five participants were elementary generalists within one school board. It would be helpful to hear from individuals who are not PE specialists but who are mandated to deliver the PE curriculum to their students.

Future Direction and Conclusion

There are several areas related to this work that deserve further examination. Researchers could investigate the perceptions concerning the incorporation of physical literacy into classrooms of elementary generalists who are mandated to teach physical education to their class. In these circumstances, it would be interesting to determine if these generalist teachers fully grasp the differences in meaning between physical activity, physical literacy and physical education. It would also be interesting to explore how elementary generalists who teach in

schools with Comprehensive School Health programs understand and act upon these terms. Participants in this study were given adequate time to process the definition of physical literacy and rationale and to ask questions related to both, but it was clear they were not completely confident with the concept.

Further, participants in this study self-identified themselves as being somewhat physically literate. A future study might recruit participants who self-identify themselves as *not* physically literate, and comparisons could be made. Thus, policy makers might be interested in knowing if generalist teachers delivering PE curriculum are more competent in understanding the notion of physical literacy and including skill themes and movement concepts within the psychomotor development aspects of their physical education classes. As well, are cognitive components linking the skills and movement to life outside of school being taught?

Another question to be addressed by further research might be: how can we better support elementary classroom teachers who are required to teach physical education to their own students? That is, what needs to be done to improve teachers' pedagogical skills related to physical literacy?

In the CSH model, four pillars are necessary aspects for the implementation of a major change in schools, one that prioritizes physical literacy for all students. The model cannot be successful unless sufficient attention is paid to all four pillars. Teaching and learning about physical literacy in generalist classrooms, as well as a school environment that enables physical literacy, will not become realities unless the pillar of partnerships, supports, and services, is strong and well developed. Professional development with in-service teachers is of great importance, and is one way that this pillar can be implemented.

In conclusion, elementary generalists have reported feeling overwhelmed with crowded schedules, inadequate space, a lack of administrative and specialist support, and the pressures of standardized tests. As well, physical educators have shared feelings of both isolation and alienation from those who teach solely in the classroom (Foran, 2006; Becky, 1995). Given the holistic approach of the CSH model, it is important that all teachers feel prepared to give their students opportunities to learn, understand and value concepts of physical literacy. The purposes of this study were to explore elementary generalists' feelings related to incorporating physical literacy into their classrooms and also to explore issues around collaboration between classroom teachers and physical education specialists. Possible barriers were identified and suggestions provided for modifying current policy. The findings showed that teachers place a high priority on their students' health and want to help provide them with opportunities to be physically literate. The timing is right for decision makers to act and listen to these voices as teachers are realistic about the health crisis of physical inactivity in North America and appear motivated to provide more opportunity for our citizens to grow into physically literate members of society.

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Appendix A

Interview / Conversation Structure

1. Years experience
 - Teaching background
 - Initial teaching certificate
 - Did you ever teach physical education?
 - Did you attend graduate school?
2. Do you see yourself as a physically literate person? Could you give examples of how you feel that you are? OR, why you feel you are not?
3. What are your memories of your pre-service program related to physical literacy (both in and outside of the actual program)?
4. Has there been opportunity throughout your career to continue developing as a physically literate person?
5. The province is committed to improving achievement in literacy. As well, research states that students who are physically active have demonstrated higher levels of academic achievement. Additionally, it is fact that some children learn best through kinesthetic learning. Knowing this, now that you understand the concept of physical literacy, would you be willing to address it within your classroom? Do you do it now? If so, how might you implement physical literacy? If not, why do you think this is?
6. There are a lot of articles publishing encouraging physical educators to incorporate classroom subjects into their physical education lessons. Can you imagine how, in collaboration with the physical educator at your school, you could plan for opportunities that foster students' experiences related to their development as physically literate people?

¹ Alberta mandates DPA for all students in grades 1-9. Related provincial DPA documents can be found at:

<http://education.alberta.ca/teachers/resources/dpa.aspx>

British Columbia mandates DPA for all students in grades K to 12. Related provincial DPA documents can be found at:

http://www.actnowbc.ca/students/EN/actnow_bc_for_students/the_need_for_daily_physical_activity/

Ontario mandates DPA for all students in grades 1-8. Related provincial DPA documents can be found at:

<http://www.edu.gov.on.ca/eng/teachers/healthyschools.html>

<http://www.edu.gov.on.ca/fre/teachers/healthyschools.html>