

Exploring physical education teachers' value orientations as practiced: A case study of three elementary physical educators

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Background

As we move forward in these times of educational funding cutbacks, attacks on public education and changes to the system it becomes ever more critical for physical education teachers to treat physical education like all other academic programs with regard to their curricular decisions. Teachers need to bring credibility to their program, demonstrate accountability, reward student learning, and communicate student achievement to the parents (Darst & Pangrazi, 2002; Pangrazi & Beighle, 2010). Curricular decisions affect the learning that takes place in the gymnasium and what the physical education teachers value, should therefore play a key role in what their curricular decisions concerning content selection, assessment, classroom climate, and goals for the program are.

The Nova Scotia Department of Education and Early Childhood Development (DEECD) has recently launched a new elementary physical education curriculum. *Physical Education Primary–3* and *Physical Education 4–6* now provide the framework for what the elementary physical education program should look like. This framework is based on current educational research and theories regarding physical activity and is significantly different than the previous physical education curriculum developed decades ago. The inclusion of a section in the documents titled, *Contexts for Learning and Teaching* demonstrates the advances in the design of this curriculum over its predecessor. Important concepts such as (a) planning for 21st-century learners through the use of collaboration, communication, creativity, critical thinking and risk taking, (b) physical literacy – “individuals who are physically literate move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person.” (DEECD, 2014, p.25), (c) differentiated instruction and adapted physical education concepts to modify games and activities to fit the skills and abilities of all students (d) a task involved motivational climate that focuses on improving, learning, and understanding along with putting forth best effort, (e) cultural relevance should be evident in the content selection (f) cross-curricular connections to literacy, numeracy and the arts should be made in collaboration with classroom teachers, and (g) technology integration that promotes motivation and helps students make connections in their learning. (DEECD, 2014). This substantial list of concepts added to the physical education curriculum has proven to be a

Value Orientations

stumbling block for many of the practicing educators unfamiliar with the current educational research in physical education. With the introduction of the new program came many rumblings and voices of displeasure. A variety of reasons may exist for this discontent with the new program, chief among them is possibly that the values of the curriculum may not match the values of the current physical educators.

The possible disconnect between curriculum and educator values presents an interesting dilemma, given that teaching typically takes place in isolation – one teacher in the gym with the students and minimal if any supervision in place to hold the teacher accountable for their curricular decisions – it is possible that even with the new physical education program in place, curricular decisions may not be in line with those of the curriculum. In a study by Simmons and MacLean (2016) that looked at the physical education teachers' perceptions of factors that inhibit and facilitate curriculum change they determined that “one inhibitor widely identified by respondents was the structure of the course and the extent of the change from previous policy” (Simmons & MacLean, 2016, p.9). Interestingly, my personal experiences sitting through professional development and meetings focused on the launch of the 2015 Nova Scotia Physical Education curriculum, were strikingly similar. Discussions revolved constantly around the new structure of the curriculum, how it was more complex and there was more “to it”. Also, similar to the findings of Simmons and MacLean were comments that showed praise for the flexibility of our new curriculum, however, there was frustration with the vagueness and lack of exemplars and assessment. A final congruence between my experiences and those described by Simmons and MacLean is the expectation to translate and adapt the curriculum to fit the unique contexts of each school without the leadership and guidance on curricular decision making to support these choices. This has left Nova Scotia physical education teachers in a place where they are isolated in their practice, alone in the gym, and have to make these decisions with little to no outside guidance, leaving only what they value in physical education to guide them.

Chen, Zhang, Wells, Schweighardt and Ennis (2017) discuss that value orientation can serve as the foundation for pedagogical decisions made by teachers. They go on to state that pedagogical decision making involves intuitive, analytical and deliberative decisions made by teachers that apply to all aspects of the teaching and learning process. In their discussion of

Value Orientations

research on value orientation Chen et.al. (2017) share that earlier studies they conducted found physical education teachers' decisions to be more intuitive than reflective, that there is content focused, social-centered focused, and balanced teacher orientations, and that educational context played a role in value orientations.

Personal Connection and Statement of the Problem

Throughout my career I have come across a large variety of approaches to teaching physical education. Each of these different teachers valued vastly different aspects of a physical education program. While these experiences happened over all grade levels, from P-12, and over the course of a few years, I believe that they informed my personal values decisions and values orientation as a physical education teacher currently at the elementary level. In my experience teachers can discuss and converse about all of the proper topics, using the key words and hitting all the important points, but when the gym doors close and it is just the teacher and the class, what actually happens may be a fair bit different. I know that personally, there are days that what I value in a physical education program and what I end up doing in the gym can be on opposite ends of the spectrum for any number of reasons.

In recent years, I have spent significant time reflecting on my teaching values and curricular decisions regarding content, assessment and goals for my program. To this end I have worked to create and maintain an informal physical education teachers professional learning community (PEPLC) with other elementary physical educators in my community so that I have been able to extend my personal reflection to include reflection on the discussions I have with other physical educators regarding their teaching values. McEvoy, E., Heikinaro-Johansson, P., & MacPhail, A. (2015) discussing values and purpose in teacher education, cite Hanson (2008, p.23) from *The Values and Purpose of Teacher Education* arguing that without discussing the purpose of their teaching practice people can become stagnant in their teaching. By reflecting and sharing teachers are able to remain vibrant and dynamic in their practice and this dialogue is indispensable to their very purpose. It is from interactions in my PEPLC that I have come to believe many educators have trouble with change and the 2015 physical education curriculum has proven to be a significant change.

Value Orientations

Research suggests that experienced teachers' values reflect several orientations that form a complex profile which influences their selection of content, teaching styles, and assessment methods (Ennis & Chen, 1995). This research has identified "five fundamental value orientations: disciplinary mastery (DM), learning process (LP), self-actualization (SA), self/social responsibility (SR), and ecological integration (EI). Each value orientation serves as a philosophical foundation or a belief system guiding physical educators' curricular choices, instructional decisions, and teaching behaviors in the gymnasium." (Chen et.al., 2017). These five orientations do not exist separate from each other, Chen et.al. (2017) refer to research by Chen and Ennis from 2015 that suggests experienced teachers' belief systems reflect a combination of orientations that form a profile of the teacher's values. This combination represents a hierarchy of priority orientations that are influential in the teacher's selection of content, teaching style, assessment methods, and classroom environment.

Based on descriptions of the Ennis Value Orientation Inventory used in the research by Chen, Zhang, Wells, Schweighardt, and Ennis (2017) I believe that I would primarily fall into an orientation combination of the ecological integration (EI) and self/social responsibility (SR) orientations with a more EI focus. The EI orientation is a balanced perspective that addresses mastery, self-actualization and social interaction. Subject matter and social responsibility hold equal importance in developing an engaged and confident mover. While my secondary orientation would seem to fit the SR orientation that focuses on interpersonal interactions, cooperation and teamwork in both the learning situation and beyond. The SR orientation uses group-centered instruction, expects students to demonstrate respect and cooperation, value teamwork and emphasize collective effort. There are also aspects of disciplinary mastery (DM) specifically the development of physical competence, and learning process (LP) through the use of problem solving and application of learning (Chen et.al., 2017).

In the past, I found that my values for physical education programs were considerably different from the published curriculum. Yet, with the launch of the new curriculum I am in a position of significant congruence between what is written and what I believe. This has allowed my pedagogical decisions regarding content, assessment and goals for learning to be more in line with the goals of the curriculum.

Value Orientations

However, I recognize that there now exists a disconnect for another group of physical educators. Those that flourished in the old program, those whose values do not match up as closely to this new curriculum.

Through interviews around values, the use of a tool to help identify physical education teacher value orientation (Ennis Value Orientation Inventory), and observations of the physical education teachers' practice I hope to determine the role value orientation plays in their pedagogical decisions about day to day activities taking place in their gymnasiums.

Purpose

The purpose of this study is to explore role of value orientation in physical education teachers' curricular decisions.

Research Questions

1. What are the goals and expectations for the students in each elementary physical education program?
2. Why are these goals valued by the elementary physical educators?
3. Do the curricular decisions of the elementary physical educators align with the Nova Scotia P-3 and 4-6 curriculum documents aim?

This research may be seen as significant for the understanding of curricular decision making as it pertains to value orientation of elementary physical educators. Since the experiences of students are contingent upon the content they are exposed to and that content is at the discretion of the physical educator, then knowing why elementary physical educators make the curricular or pedagogical decisions they do will inform the planning-teaching process. Consequently, when reviewed in comparison to the required curricula this may provide insight into the implementation process for new curricula.

Theoretical Framework

A theoretical framework is the underlying structure, the scaffolding or frame of my study and consists of concepts and theories that inform my stance or position which I bring to the research. (Merriam & Tisdell, 2016). Keeping this in mind, the qualitative case study provides an approach to investigating my research problem. As Creswell's detailed definition in Merriam & Tisdell (2016) states,

case study research is a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes. (p.40)

Approaching this research from an interpretive perspective allows me to describe, interpret and look for subjective meaning in the experiences of the participants. (Merriam & Tisdell, 2016)

This study will draw upon the Values Orientation Theory (VOT) as discussed by Chen, Zhang, Wells, Schweighardt and Ennis (2017) in their study of student learning in physical education. They reference Ennis (1992) stating that teacher values orientation plays a key role in the decisions made regarding teaching practice. Chen et.al. (2017) explain that research in the VOT (Ennis & Chen, 1993, 1995; Ennis, Chen, & Ross, 1992) has revealed and confirmed five fundamental value orientations: disciplinary mastery (DM), learning process (LP), self-actualization (SA), self/social responsibility (SR), and ecological integration (EI). Each orientation provides the educator with a basis on which they determine their programs; their planning of activities, their assessment methods used and their interactions and expectations in the gymnasium.

The five values orientations are outlined in the table 1.

Value Orientations

Table 1

A description of five value orientations

Orientation	Description
Discipline Mastery:	a teacher who emphasizes knowledge and skills.
Learning Process:	a teacher who emphasizes the development of process skills for independent learning regardless of content.
Self-Actualization:	a teacher who emphasizes the continual development of an individual's autonomy
Social Responsibility	a teacher who encourages pupils to respect and cooperate with others
Ecological Integration:	a teacher who promotes personal meaning for students via collaboratively developed curricular experiences to achieve personal and social goals

Through the use of the Ennis Value Orientation Inventory (Short Form), I would have the participants reflect on the statements and using a forced choice format have them rank the choices in order. This would provide a valid and reliable aggregate score to represent the teacher's value orientation profile. Chen et.al. (2017) refer to two previous studies that back up the effectiveness of the Ennis VOT Inventory (Ennis & Chen, 1993, Chen, Ennis, & Loftus, 1997). Similarly, Curtner-Smith and Meek (2000) describe the early field testing of the VOI done by Ennis and Hooper in 1988, Ennis, Mueller and Hooper in 1990, Ennis and Zhu in 1991, Ennis, Chen and Ross in 1992 and Ennis and Chen in 1993 and 1995. In all cases Curtner-Smith and Meek indicate the results supported the use of the VOI as a tool for determining a value orientation profile of teachers and that there was no significant difference found between school level (elementary, middle, high school), gender and teaching experience.

Through the analysis of the data collected in this study, the goal would be to uncover the parallels between teacher values and practice and also discover how these values based curricular decisions match up with the DEECD 2014 P-3 and 4-6 elementary curricula.

Literature Review

Value Orientations

As Merriam and Tisdale (2016) discuss in their chapter covering literature reviews, the literature review allows the researcher to delve into their topic and find out what others are saying, either currently or in the past. This allows a researcher to be able to inform their research and provides a base of knowledge upon which to build. Through a careful review theories that apply to the topic can be discovered, reviewed and used (or not) to provide a theoretical framework to the research at hand. Additionally, discovery of what has been written on the research topic allows the researcher to infer what has not yet been written about. This becomes key when “selling” the research topic, not only to oneself but also to an advisor, volunteer participants, or to a journal upon completion. Finally, the reading involved will provide the researcher with the necessary grounding and support to plan and develop a theoretical framework for their research.

Chen et.al. (2017) Impact of Teacher Value Orientations on Student Learning in Physical Education.

This team of researchers appears to be the leading academics in teacher value orientation, specifically Ennis and Chen have been focused on this topic for well over 25 years.

They begin by reviewing the Value Orientation Theory briefly listing the five fundamental value orientations: disciplinary mastery (DM), learning process (LP), self-actualization (SA), self/social responsibility (SR), and ecological integration (EI) and noting that each value orientation serves as basis for the decisions of physical educators in the gymnasium. They go on to indicate that teachers are typically influenced by multiple orientations that form a profile which influence content selection, assessment and teaching styles. They note their findings that curricular choices are generally consistent with value orientations although sometimes decisions appear to be intuitive not reflective. Further discussion on the orientations reveals their thoughts that there are two value families: a content centered focus (DM, LP) with goals appearing to be summative outcomes in a disciplinary oriented PE curriculum and social centered focus (SA, SR) with student centered goals such as responsibility that could be formative outcomes promoting positive behaviour. This left the balanced EI orientation considering both types of goals and outcomes.

Value Orientations

This particular study's data suggested that "when the curriculum is well designed with explicit content structure and a compatible instructional system, the impact of diverse and contradictory teacher value orientations on student learning may be minimal." And that "a coherent curriculum can be so powerful that its impact will reach the intended learners and lead them to effective knowledge construction regardless of individual teacher beliefs." (Chen et al., 2017, p.158)

These results pose interesting possibilities that can potentially be inferred regarding curriculum design that is not explicit in content structure and the resulting impact that diverse and contradictory value orientations may have on implementation.

Chen et al. (2017) conclude by stating that given the influence of value orientations the challenge is "to conduct additional research to enhance our understandings of the value orientation influence on formative and summative learning outcomes" (p.160)

Simmons and MacLean (2016) Physical education teachers' perceptions of factors that inhibit and facilitate the enactment of curriculum change in high stakes exam climate.

This study had two objectives, to identify PE teachers' perceptions of the inhibitors and facilitators of curriculum change, and to explore how PE teachers enact curriculum change.

The initial discussion revolves around a lack of collaboration between curriculum designers and policy makers and front-line teachers. This is seen as an inhibitor and they cite a US study that found this to be the case (Dyson, Wright, Amis, Ferry, and Vardaman, 2011) where a lack of coordination between key actors, teachers, principals and students resulted in 'implementation failure'. They continue along the path of teacher involvement and refer to many authors (Fullan, 1991; Kirk & MacDonald, 2001; MacLean et al., 2015; MacPhail, 2007; Penney & Evans, 1999) who have voiced this concern. Simmons and MacLean refer to MacPhail from 2007, saying that if,

teachers are not involved in the curriculum process, it can only be expected that they subsequently require specific knowledge in order to understand and deliver it. Yet, this

Value Orientations

reinforces a rather linear view of implementation where teachers are seen as recipients and deliverers of a prescribed curriculum. (Simmonds & MacLean, 2016, p.4).

It is also crucial to note that teacher decision-making is likely to be affected by existing systems within the school such as the timetable and the attainment agenda, which have the potential to limit the promotion of active learning. However, not all teachers will experience the same degree of structural and cultural influence. Newly qualified professionals are often teaching for the first time in an unfamiliar cultural setting (Musselin, 2004) and therefore the context for teacher agency is perhaps affected even more so by imposing cultural and structural systems and less reflexive deliberation (Kahn, 2009). These are factors which should be considered when attempting to explain teacher behaviour and decision-making, and when analyzing the extent of the change

From the data Simmonds and MacLean (2016) found an inhibitor “widely identified by respondents was the structure of the course and the extent of the change from previous policy” (p.9) and also that although “elements of the flexible nature of the new policy were indeed praised in principle, the speed at which such a change was introduced was regarded as a key inhibitor to the change process.” (p. 9). They also determined that “confusion and insecurities were exacerbated by the lack of coinciding, explicit documentation. Teachers were aware that new course documents were to be treated as blueprints to adapt to their individual school, but were concerned about the vagueness of crucial exemplars and assessment criteria” (p.10)

Discussion also revolved around the need for leadership, guidance and explicitly structured programs from the policy-makers when teachers are being expected to act as agents of change, to adapt and uniquely fit curricula within their school context.

Curtner-Smith, M. & Meek, G. (2000). Teachers’ value orientations and their compatibility with the National Curriculum for Physical Education

This 2000 study supported the research of Ennis and her colleagues regarding value orientations of physical education teachers. Their review of the literature focused on many

Value Orientations

previous studies that focused on the compatibility of teachers' beliefs and values and how they interact with innovations and change. Examples of studies they cite supporting this are Hargreaves, 1989, Sparkes, 1991, and Giroux 1983. They found teacher resistance to change to be strategic whereby teachers change what they say about their curricula but not what they do (as cited in Sparkes, 1987). They also state that "Teachers' resistance is particularly fierce when they believe that innovations are incompatible with their personal and professional goals and will not benefit their pupils" (as cited in Jewett et al., 1995).

Curtner-Smith and Meek also discuss how most of the research literature on teachers' value orientations has been completed by Ennis and her colleagues in the United States and has involved using the VOI to collect data.

Discussion in the study also points out how top down educational policy changes are ineffective and that "state educational policy may strongly frame the range of opportunities which an individual teacher can enjoy, policy makers . . . can rarely if ever control or determine the readings made of policy texts in contexts of practice'." (as cited in Evans & Penney, 1992)

Curtner-Smith and Meek also indicated that rather than reproducing NCPE legislation as practice, teachers are modifying, adapting and recreating it to fit with their own beliefs and values.

Finally, they conclude that there is a need to carry out in-depth qualitative studies of the actions and practices of teachers as related to each of the five value orientations and teacher value orientation profiles.

Methodology

A central characteristic of all qualitative research is that individuals construct reality in interaction with their social worlds. Constructivism thus underlies what we are calling a basic qualitative study. Here the researcher is interested in understanding the meaning a phenomenon has for those involved. (Merriam & Tisdell, 2016, p. 24).

Value Orientations

Using the interpretive constructivist approach will provide me the flexibility to undertake this research. As a case study, involving interviews, observations and document collection I will be constructing an interpretation of the reality in which the participating elementary physical educators teach. My inferences, observations, interpretations and experiences will guide the narrative that I will create surrounding the research problem.

Sample Selection

My intention would be to use non-probabilistic or purposeful sampling. “Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (Merriam & Tisdale, 2016, p.96).

For my proposed qualitative case study, I will use criterion based, convenience sampling as an initial method of attracting participants. Approaching colleagues known to me as well as elementary physical educators working in nearby school locations I hope to be able to find 3 willing participants. An additional strategy that may be helpful would be network sampling. Perhaps by using the contacts of the people I know and/or am near I will increase the possible pool of participants making it easier to find three who fit the study.

The criteria you establish for purposeful sampling directly reflect the purpose of the study and guide in the identification of information-rich cases. You not only spell out the criteria you will use, but you also say why the criteria are important. (Merriam & Tisdale, 2016, p.96).

For this study, I believe that it is important that the participants have been elementary physical educators for at least 7-10 years so that they have experienced working with both the old and new physical education curricula and experienced the transition from old to new in 2015. Additionally, they should be employed at an elementary school within easy travelling distance from my location. Ideally the teachers will have Physical Education degrees (BPE or MPE).

Value Orientations

I believe that 3 teachers are a sufficient number for a qualitative case study. With the time commitment involved in interviews, transcription, observations and analysis, three subjects are suitable for a single researcher.

Methods

Research Design. The research design will follow along that of a qualitative case study, collecting a variety of data, from a variety of contexts and sources. The data from field notes and from interview transcripts will be collected to develop a qualitative value profile based on teachers' values and learning goals for the students. The research questions will serve as the focus of the study. Specifically, the focus of the observations will be to describe the content and methods used in each class, record the rationale given by the teacher to students for content selection and how the content was implemented within each class. Students' responses to the teacher's directions and feedback will also be noted. Teacher interactions with the students during the activity will also be recorded.

Timeline. The timeline for the study could be approximately as follows:

1. Literature Review: September 2017 – July 2018
2. Invitation to Participate: November 2017
3. Data Collection: December 2017 – March 2018
 - a. Interviews, VOI and Gymnasium Tours: December 2017
 - b. Researcher Generated Documents Collected: December 2017 – March 2018
 - c. Informal Observation/Team Teaching: January 2018
 - d. Formal Observations: February 2018
4. Data Analysis: December 2017 – May 2018
5. Thesis Writing: May 2018 – July 2018

Value Orientations

Data Collection. Acting in a participant as observer relationship throughout the early part of the study I will be using a four-pronged approach to collecting data for this study. Data collection will take place over a 3-4-month period. It will begin with personal, individual interviews and gymnasium tours at the participating teachers' schools. The second and third phases of the data collection involve observation of the teachers in action. The second phase of the data collection will be an informal observation period where I will team teach with the participating educator during 3-4 select periods prior to the third phase. With the formal observations following the team teaching sessions, I will move to a more observer as participant relationship. These observations will be of an inconspicuous nature, locating myself on the sides of the gymnasium or out of the way on the stage (if one is in the gym). There will be between 4-6 formal observations. Formal observations will be of grade 2 classes, there will be not curriculum based requirement for the observations, any activity chosen by the elementary physical educators will be appropriate. Videotaping and field notes will take place during the formal observation. The fourth and final piece of data collection will be ongoing throughout the data collection phase and will come in the form of researcher generated documents. Items such as planning books, lesson and unit plans, yearly plans, assessments and the value orientation inventory will make up this aspect of the data collection.

Interviewing. Merriam and Tisdell (2016) cite Patton from 2015 regarding the fact that interviewing for research purposes is a skill and that its purpose according is to get into another person's mind and find out the information related to your study that you cannot directly observe, such as their values, beliefs, preferences, their intentions or their histories.

Determining the interview structure is critical for researchers to get right, too much structure may inhibit the participant from fully sharing and delving into the topics to give thoughtful and rich detail in their answers. Yet being too informal may not allow the researcher to effectively get to all the necessary questions. The effective researcher will structure their interview in such a way as to elicit the best answers to their questions. In most cases this means a semi-structured style interview where the researcher has a set question guide that they stick to but also allow for some conversational style back and forth with the participants and can use the flow of the interview to guide the order of questions and any follow up questions.

Value Orientations

As this research is a case study, the semi-structured format lends itself effectively to the research. I plan to use an individual, semi-structured style that has a set order of questions yet allows for a conversational tone to the interviews. Allowing a discussion of the questions between myself and participant can bring out more detail and information regarding their thoughts, values and beliefs around a physical education program. Additionally, this type of structure lends itself to unplanned follow-up questions that can delve deeply into the narrative being provided by the participant. Allowing the participants, the opportunity to share their stories and anecdotes that relate to the guiding questions of the interview, while actively listening and engaging with them, should strengthen the interview results by providing structure through the distinct set of questions and the order they are presented in. In this way, I will strive to keep the data consistent from participant to participant.

Interviews will be audio recorded and field notes will be taken as well. At the conclusion of the interview participants will spend 5-10 minutes answering the questions in the value orientation inventory (VOI). Finally, as part of the interviews, a guided tour of the school gymnasium will be requested. During this tour video and/or photographs will be taken to highlight what the participant believes to be important and valuable within their gymnasium.

As a means of checking the reliability of the interview questions I will pilot the interview with members of my PEPLC. This will give me an opportunity to test the questions against people who would hold similar views, have similar experiences and likely hold similar values to the teachers that will eventually take part in the study. Feedback from these pilot interview will guide any revisions that may be necessary to focus the interviews more effectively on the study goals.

Observations. “Observation is a major means of collecting data in qualitative research. It offers a firsthand account of the situation under study and, when combined with interviewing and document analysis, allows for a holistic interpretation of the phenomenon being investigated.” (Merriam & Tisdell, 2016. P. 160). Over a period of approximately 2-3 months, and through careful observation I will be collecting data to complement what was gathered during the

Value Orientations

interview process. It will be this interview data that will inform the direction that the observations will take. By combining the knowledge gained from the interview and collected documents I will then be able to begin to form a picture of what the value orientation of each teacher is.

During the informal observations/team teaching sessions I will be taking field notes at the end of the sessions. During the sessions I may use video, photographs and jot notes to inform the field notes. These sessions will take place over a 4-week period with 2 two hour visits per teacher in that time.

The formal observation will take place over a 6-7-week timeframe and will involve 3 thirty minute visits per teacher in that time. The focus of the observations will be primarily on the teacher and his/her interactions with the students. Field notes will be taken of the observations. Merriam and Tisdell (2016) describe the actual process of recording field notes, giving the following “hints” to make analysis easier; (1) begin with time, place and purpose, (2) list and describe the participants, (3) use a diagram if relevant, (4) leave a wide margin for notes later, (5) double space between segments, (6) use quotation marks for direct quotes, (7) use consecutive line numbering to ease information retrieval during analysis, (8) be highly descriptive, (9) use reflective commentary and have a designated place for it in the notes – a margin, in brackets.

Formal observations will be focused based on the interview responses to observe their discussed values and goals in action. For example, if a teacher talks of valuing skill mastery then the observation focus may be partly how that teacher is interacting with students to promote skill mastery in the activity taking place.

Additionally, the physical environment will be observed as will the subtle factors like unplanned activities/events, non-verbal cues and what is not happening (if certain things should be happening).

Value Orientations

Documents. Through the entire process I will collect documents from the participants that will inform me of their curricular decisions regarding content selection, assessment strategies and timing, unit and lesson design, and other educational priorities. This data will come from opportunities to investigate the teachers planning documents (yearly, unit and lesson plans, assessment plans and documents) or receive copies of these documents.

Other documents that will inform the data are the Department of Education and Early Childhood Development Physical Education P-3 and 4-6 curriculum documents and the Essential Learning Outcomes P-3 document or Streamlined Curriculum 4-6 document. These documents will provide an opportunity for comparison of the curricula and the physical educators teaching practice and inform me on the congruence, or lack of between the new 2015 curricula in Physical Education and the implementation of it by practicing teachers.

Data Analysis.

Data analysis is an ongoing process in a qualitative research study. It should begin with the completion of the first collection of data, be it an interview, survey, observation... and doesn't conclude until you have presented your findings. Even then, through peer review, submission to journals and defence of the research further data analysis may continue as a result of the feedback and critiques received. The process is emerging, recursive and dynamic.

Merriam and Tisdell (2016) talk about the interactive nature of data collection, analysis and reporting, of how one set of data informs and directs the next phase in the data collection, of how as the researcher your insights, hunches and hypothesis may change or take the research in a new direction. The continual analysis of collected data allows for the refinement of the collection process; fine tuning the observational focus or rewording an interview question.

Beginning with the interviews, having purposely selected the participants, and investigated the literature surrounding the research problem, data analysis will involve inductively deriving meaning based on my knowledge of the research problem and guiding questions. With the aid of the theoretical framework in place I will slowly collect and analyze data from interviews, documents, and observations. As the process unfolds each new data set

Value Orientations

will inform and guide the collection and analysis of the next data set. Using a timeline of data collection that will allow for simultaneous data analysis is important. Too much data can become overwhelming and unmanageable. To counteract this possibility, I plan to conduct the 3 interviews over the initial first month of data collection. This will allow for an interview to happen, the recording to be transcribed and the information to be reviewed prior to the next interview taking place. The second month of data collection will have me making informal observations and team teaching with my participant teachers for 2 hours twice each. These 6 visits will be spread out so that a review of field notes for each case can take place and any data of interest can guide the next visits focus. Finally, the last month of data collection will involve three 30 minute visits to formally observe a grade 2 class in action. These visits will be scheduled based on the physical education schedule at the school, but given that grade 2 students receive physical education 3 times per week, it should not be difficult to arrange the visits with sufficient time between each to allow for transcriptions, review of video, review of field notes and coding of the notes.

It will be important to keep in mind a few of the “helpful suggestions” that Merriam and Tisdell (2017) attribute to Bogdan and Biklen. The most helpful for my research will be the suggestions that help to keep me focused on the task at hand, to keep my mind and data from wandering and to keep myself organized and methodical. For my study, I will be using data analysis to inform my data collection as described above. By creating a timeline that allows for simultaneous collection and analysis I allow the data to lead me through the observations. Keeping track of my thoughts, feelings and commentary on what I am observing will be a critical aspect of my field notes and by using the hints offered by Merriam and Tisdell (2016) such as margin notes, brackets and a journal I hope to manage these aspects of the data collection effectively. Finally, I plan on using visual devices to organize and be systematic in my approach to the data analysis. Flow charts or bulletin boards allow for a visual representation of the data in a way that I will be able to quickly manage, adjust, alter and refine.

With my research being a multiple case study, there will need to be two phases of analysis. The first phase is with-in each case while the second phase is a cross-case analysis. Initially each case is treated as a separate entity unto itself. Then as data are gathered in all cases

Value Orientations

the variables will begin to present themselves. Once done an analysis of each case the cross-case interpretation of the data can begin. The goal of the multicase study is to build abstractions across cases. (Merriam & Tisdell, 2016).

Coding. As data is collected and analysed, it is important to begin the process of coding the data. This involves reading through the field notes, transcripts, or other data and identifying the key ideas and concepts as they relate to the research problem. As Merriam and Tisdell point out “a unit of data can be as small as a word a participant uses to describe a feeling or phenomenon, or as large as several pages of field notes describing a particular incident.” (Merriam & Tisdell, 2016, p. 201). As the data grows so will the codes that represent all aspects of everything determined to be relevant to the study. Once a number of codes have been developed through data then I will review codes looking for larger concepts that can bring together groups of the codes. For example, I might have a set of codes such as *feedback*, *praise*, *criticism*, and *social*. All of these codes could then be categorized under *responsive interactions*. This process is called axial coding.

Reviewing the data in this way will allow me to begin to see trends and make sense of the pages of writing that have been collected. Through the use of open coding, the categorizing of the information to facilitate analysis, the data will be reviewed and sorted. Following that I would go through the data set again, this time looking for commonalities in the codes and categories. The use of the constant comparison method is a “systematic four-step process that consists of (a) scanning the data to locate common categories, (b) identifying properties and common themes in the data, (c) comparing themes across data categories (triangulation), and (d) developing explanatory theory” (Ennis, 1992, p. 363). This method will focus these commonalities to form the themes of the narrative or the story that the data is telling. This is where visual devices like digital flow charts or bulletin board and notes will help to keep me on track and organized.

Given the research problem and guiding questions have formed my thinking going into the data collection, the use of a priori coding strategy, where I have predetermined some of the codes to fit the desired storyline of the research may also be effective (Stuckey HL, 2015). For example, a possible series of codes that may be used in the research would be *Interactions*,

Value Orientations

where it is used to describe *teacher initiated* or *student initiated* interactions on one level, then below that could be *responsive* and *spontaneous* interactions, another level below that could then reflect *behavior, attention, praise, criticism* and *feedback*.

An important final reminder from Merriam and Tisdell (2016) is the need to ensure that categories are responsive to the research problem and reflect what is being studied, that they be exhaustive and include every piece relevant data, that they be mutually exclusive and that the names should be sensitive to the data in the category, and finally that they are conceptually congruent, in that each item of data should exist on the same “level”.

Credibility and Consistency

With any research, the validity and reliability of the data and findings are concerns that can be mitigated through careful planning of the study and in the ways data are collected, analyzed, interpreted and disclosed. Over the course of the past few decades, within the research community, the rise of qualitative research studies has resulted in a critical thought process revolving around the terms validity and reliability. With a quantitative study, the results and data can be determined to be valid and reliable when another researcher can replicate them. In qualitative research, this is not possible due to the nature of the research. This has led to a variation in terminology over time with quantitative research terms being replaced by more applicable qualitative research terms. For example, internal validity could be called credibility, external validity could become transferability and reliability could be consistency (Merriam & Tisdell, 2016).

Credibility

Do the research findings match the reality from which they were observed? Is the researcher capturing the true essence of the observation? Is the researcher measuring what they believe they are measuring? Credibility or internal validity addresses these questions. It “refers to the believability and trustworthiness of the findings. This depends more on the richness of the data gathered than on the quantity of data. The participants of the study are the only ones that

Value Orientations

decide if the results actually reflect the phenomena being studied and therefore, it is important that participants feel the findings are credible and accurate.” (CIRT, n.d.)

Merriam and Tisdell (2006) describe triangulation as a means to “shore up” the credibility (internal validity) of a study. They refer to the four types of triangulation (as cited in Denzin, 1978); multiple methods, multiple data sources, multiple theories, and multiple investigators. Similarly, Cohen and Crabtree (2006) discuss these same ways to triangulate data. However, believe that “rather than seeing triangulation as a method for validation or verification, qualitative researchers generally use this technique to ensure that an account is rich, robust, comprehensive and well-developed.” (Cohen & Crabtree, 2006, Triangulation Page).

My intention would be to use multiple methods triangulation, which is the cross-checking of data and finding through the various sources of data collection; interviews, Ennis Value Orientation Instrument, informal observations, formal observations, and researcher generated documents (yearly, unit, lesson and assessment plans and timelines) mentioned in the data collection section of this proposal.

Memory checks or respondent validation is another method of ensuring credibility in a qualitative study. By presenting the emerging data analysis to selected participants and allowing them to review and provide feedback on the interpretations, inferences and deductions made, I would be using what Merriam and Tisdell (2016) call,

the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say and do and the perspective they have on what is going on, as well as being an important way of identifying your own biases and misunderstanding of what you observed. (p. 246)

Adequate engagement of the data happens when the researcher begins to consistently see and hear the same things and new data is presenting itself less often. As I plan to use multiple data collections methods; interviews, VOI, informal and formal observations, and documents; over an extended period of time 3-5 months; this may turn out to be the case prior to the end of the formal observation time, it is possible that data collection schedules could be altered.

Value Orientations

Finally, my investigator's position, must be shared to reveal my biases, assumptions and dispositions that are pertinent to the study. This needs to be transparent and clearly shared so as to provide clarification to the reader and allow a better understanding of how I came to the interpretations and conclusions about that data collected. (Merriam & Tisdell, 2016)

Consistency

Otherwise known as reliability, consistency or dependability is more concerned with the reader or other researchers being concur that the results, given the collected data, make sense and are consistent with the data. Strategies that can be used to ensure consistency in qualitative research include triangulation and investigator's position as discussed earlier. Additionally, peer evaluation, where a carefully selected colleague reviews the data analysis and findings to determine if they reach the same conclusions, can provide consistency to a study. (Merriam & Tisdell, 2016)

I will use the audit trail, which Merriam and Tisdell, (2016) define as “a detailed account of how the study was conducted and how the data were analyzed”. (p. 253) It becomes a means of demonstrating the consistency and reliability of the research. Located in the methodology of the report it will detail a “running record” of the data trail, from collection through analysis and interpretations. It can also include researcher thoughts, feelings, questions, issues and ideas and is typically recorded in a journal.

Transferability

Often called external validity, transferability refers to the degree that the findings of the research can be transferred to other contexts by the readers. Merriam & Tisdell (2016), suggest that “the burden of proof lies less with the original investigator than with the person seeking to make an application elsewhere.” (as cited in Lincoln and Guba, 1985, p. 298)

So, will the findings of my study be applicable to another situation? That is always a consideration of research. Do these findings at school A mean the same will be found at school

Value Orientations

B? In qualitative research this is generally not going to be the case. For my research, the value orientation of the 3 teachers participating will be different from the value orientation of any other teachers, whether they teach at the same schools, in the same board or at the same grade levels. What will be important is that through rich descriptive writing concerning this context, other researchers can determine whether or not these findings are transferable to their specific situations.

Ethical Considerations

Ethics are the standards and norms that help a person determine right from wrong, acceptable or unacceptable. The credibility and consistency of research findings rely on the adherence to ethic principles. Merriam and Tisdell (2016) state that “methods do not ensure rigor. A research design does not ensure rigor. Analytical techniques and procedures do not ensure rigor. Rigor resides in, depends on, and is manifest in rigorous thinking— about everything, including methods and analysis” (as cited in Patton, 2015, p.703).

Analyzing data may present other ethical problems. Since the researcher is the primary instrument for data collection, data have been filtered through his or her particular theoretical position and biases. Deciding what is important— what should or should not be attended to when collecting and analyzing data— is almost always up to the investigator. Opportunities thus exist for excluding data contradictory to the investigator's views. Sometimes these biases are not readily apparent to the researcher. (Merriam & Tisdell, 2016)

Procedural Ethics

This involves the procedures that need to be followed in the course of getting approval and permission to conduct research on human subjects. There are ethics boards that must approve research proposals prior to the beginning of a research thesis or study. For example, every University has a Research Ethics Board (REB) or Institutional Review Board (IRB) that would require application and presentation of the research proposal.

Value Orientations

The IRB is a panel of people who help to ensure the safety of human subjects in research and who assist in making sure that human rights are not violated. They review the research methodology in grant proposals to assure that ethical practices are being utilized. The use of an IRB also helps to protect the institution and the researchers against potential legal implications from any behavior that may be deemed unethical. (CIRT, n.d.)

Ethics in Practice

The personal ethics of the researcher may at times come to the forefront in qualitative research. Dilemmas may emerge during data collection, data analysis or when sharing the findings that force the researcher to make an ethical decision. Knowing what to do can be a challenge and the researcher must trust their own personal values, morals, and beliefs and make a decision. (Merriam and Tisdell, 2016)

The “Ethical Issues Checklist” developed by Patton in 2015 lists 12 items to be considered.

- Explaining the purpose of the inquiry and methods to be used
- Reciprocity (what's in it for the interviewee and issues of compensation)
- Promises
- Risk assessment
- Confidentiality
- Informed consent
- Data access and ownership
- Interviewer mental health
- Ethical advice (who will be your counselor on ethical matters)
- Data collection boundaries
- Ethical and methodological choices
- Ethical versus legal

(Merriam & Tisdell, 2016, p.264)

Value Orientations

As a novice researcher, this list is a perfect starting off point to ensure that, aside from the procedural ethics involved in research, I don't make any ethical miss-steps. Given my topic and some of the feelings that were shared regarding the implementation of the 2015 DEECD P-3 and 4-6 PE curricula there is a possibility of drawing out some hard feelings or even anger about the curricula or the process of implementation. Another area to be considerate of would be the discussions around values in physical education. How would I react to a value statement that is a polar opposite to my personal values? What if I encounter a situation while observing that I believe is not ethically acceptable?

In the end ethics is simply making sure that, as a researcher, you have crossed your "t's" and dotted your "i's", that you have considered the moral and ethical implications of what you are doing, observing, asking, and determined them to be acceptable, that you are doing no harm whether physical, social, emotional or mental to anyone involved or affected by the research and that you are not putting yourself or others in any illegal situations.

Conclusion

I believe this proposal to conduct a study of teachers' value orientation and their teaching practice would be an interesting and beneficial exercise not only for myself as a researcher but for the participating physical education teachers. This proposal goes into great detail concerning the research design, data collection and analysis, credibility and consistency, and ethical considerations. The significance of this research lies in the potential to understand curricular decision making based on value orientations and the possible implications for the implementation of new curricula.

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Value Orientations

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Value Orientations

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Appendix

Interview Questions

1. Please tell me your name, where you teach, the grade levels you teach and how long you have been teaching elementary physical education (EPE)? (*background/demographic*)
2. How do you plan your daily lessons in your EPE program? What about your units and year plan? (*ideal positions; opinions and values, knowledge*)
3. How do you plan for assessment with respect to the lesson and units you have previously described? (*ideal positions; opinions and values, knowledge*)
4. What do you think should be the main focus of an elementary PE program? (*ideal positions; opinions and values*)
5. What kind of experiences do you value for students in an EPE program? (*opinions and values*)
6. Describe an ideal learning experience for an EPE program. (*ideal positions; opinions and values, knowledge*)
7. When you are experiencing a successful lesson, what is happening in the gym to make you feel that way? (*interpretive; feeling, sensory*)
8. Some people may say that EPE is not an academic or important subject and the “gym” should be replaced with literacy and numeracy class time. How would you respond to that? (*devil’s advocate; opinions and values*)
9. If you knew of a colleague who was simply not invested in teaching quality physical education program, what might you do? (*hypothetical; experience/behaviour*)

Value Orientations

10. Can you describe the things that you value in teaching, and specifically what you value in teaching physical education? (ideal positions; opinions and values)