

**BRIDGES AND BARRIERS TO OFFERING
OUTDOOR EDUCATION TO GRADE 4-7 STUDENTS
IN SCHOOLS**

by

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B.A., The University of British Columbia, 1990

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

Department of Curriculum Studies

THE UNIVERSITY OF BRITISH COLUMBIA

January 2005

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Abstract

This study investigated the bridges (enabling factors) and the barriers (hindering factors) of offering school-based Outdoor Education programmes. A questionnaire was used to survey 120 grade 4-7 classroom teachers. Teachers were required to record their perceptions pertaining to the bridges and barriers of Outdoor Education programmes on an 11-point scale. Open-ended responses also provided insights about the barriers and bridges, as well as how Outdoor Education programmes could be supported in school settings. Data suggested Outdoor Education is indeed offered in many schools but often only to a limited degree. Interestingly, the identified barriers tended to be of an organisational nature, whereas the bridges tended to be more closely aligned to pedagogical interests. Time, costs and legal liability were perceived by teachers as the strongest barriers to offering Outdoor Education. The strongest bridges were related to student learning, other educational stakeholders and the availability of outdoor areas. These research findings provide guidance for policy, professional development and other means of supporting elementary teachers' efforts to offer Outdoor Education. Methodological guidance is also offered for further research along similar lines.

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LIST OF ABBREVIATIONS

B.C.- British Columbia
BCCT- British Columbia College of Teachers
BCScTA- British Columbia Science Teachers' Association
BCSSTA- British Columbia Social Studies Teachers' Association
BCTELA- British Columbia Teachers of English Language Arts
BCTF- British Columbia Teachers' Federation
COEO- Council of Outdoor Educators of Ontario
EECOM- Canadian Network for Environmental Education and Communication
EEPSA- Environmental Educators' Provincial Specialists Association
ERIC- Education Resource Information Center
GVRD- Greater Vancouver Regional District
IRP- Integrated Resource Package
Min. of Ed.- British Columbia Ministry of Education
Ministry- British Columbia Ministry of Education
Ministry of Education- British Columbia Ministry of Education
NVOS- North Vancouver Outdoor School
OE- Outdoor Education
ORC- Outdoor Recreation Council of B.C.
PEPSA- Physical Education Provincial Specialist Association
PITA- Provincial Intermediate Teachers' Association
SD- School District (when directly followed by a number sign. E.g. SD #44)
SD- Standard Deviation (when used with statistics)

ACKNOWLEDGEMENTS

As this thesis approaches completion, I think about the many people who have helped me along the way. First and foremost, I want to thank my partner, Karyn Olynyk. Not only has she bravely edited multiple drafts of my work and helped me with many ideas, she has also stood by me as I took on this new chapter in my life. I would like to thank Harry Hubball, my supervisor, for his guidance and his positive approach to academia. I thank my other committee members Anthony Clarke and Joy Butler, for their input and interest in my work. I thank those who helped collect data and provided other research help: Karyn Olynyk, Dixon Martin, Quinn Brown, Cathy Jensen, Anne Sanderson, Leslie Sanderson, Arnold Sanderson and Vicki Weger. I thank the Evans Lake Forest Education Centre for providing incentives for participants and also the conference organisers who allowed me to collect data at their venues. I thank the many generous participants who took the time to help this research come to fruition and I hope the entire educational community gains from your efforts. I thank all those who became involved in my Outdoor Education fixation through talks, questions and the many ways people joined me. Naturally there are many more people who have played a role in this work, but finally I would like to mention all those who have helped me enjoy the outdoors and so inspired me to take this journey. Meet me outside.

Chapter I: INTRODUCTION

1.1 Rationale

Life has everything to offer. There are so many outdoor learning experiences that can aid students' personal development. Teachers play a key role in guiding students' curriculum and personal experiences (Osborne, 1999; Werner, 1995; B.C. Royal Commission on Education, 1988). Many factors influence teachers' decisions around curriculum offerings, from government curriculum guides and student characteristics, through to a teacher's own philosophical concepts of good educational practices. One programming decision is whether or not to include Outdoor Education for the benefit of students. Based on personal experiences as a teacher I have seen students' learning flourish through Outdoor Education activities, both within my own class and in those of some colleagues. Other colleagues also often note how wonderful they find the gains in student learning and self-concept during Outdoor Education, but append that too many barriers exist for them to offer their students regular experiences of this sort. It is sad to acknowledge that powerful learning experiences are not being taken up by teachers. Why are very few students exposed to Outdoor Education, and those who are, to a minimal extent only? To understand why Outdoor Education is used or not, one needs to better understand the bridges and barriers to Outdoor Education programmes in schools. This can then show how Outdoor Education can be better supported and lead to greater Outdoor Education offerings.

A comprehensive search through the Education Resource Information Center (ERIC), Outdoor Education research journals and related literature sources, revealed very little evidence as to how teachers as a group perceive the bridges and barriers to providing Outdoor Education experiences for their students. This lack of data limits our understanding

of why and how Outdoor Education is offered and how teachers can be better supported to include these valuable learning experiences as part of their total curriculum.

This study focuses on the current British Columbian offerings of Outdoor Education in grades 4-7, including teachers' perception of the bridges and barriers to offering Outdoor Education and how they can be encouraged to improve access to Outdoor Education. The grade 4-7 level was chosen because students normally have a 'classroom' or 'core' teacher implementing the majority of the curriculum. This age groups' maturity is also often seen as conducive to Outdoor Education. Although this study of British Columbian school teachers will be of particular interest to that specific group, it is expected that these findings and recommendations will be of interest and possibly applicable to similar educational contexts beyond the borders of B.C.

1.2 Inquiry Questions

The inquiry questions of this thesis are threefold. All three issues are linked and to some extent grow from one to the other. The ultimate aim is to promote action and change in regards to Outdoor Education being offered to B.C. elementary school students.

The three questions of inquiry behind this work follow:

1. To what extent is Outdoor Education being offered to grade 4-7 school students in British Columbia?
2. What are the bridges and barriers grade 4-7 teachers perceive to offering Outdoor Education, and which are the strongest?
3. What can be done to weaken the barriers or strengthen the bridges to offering Outdoor Education in grades 4-7?

The first research question investigated the status of Outdoor Education offerings in elementary school settings. If indeed the amount of Outdoor Education is seen to be at an appropriate level, then acting to change the status quo is superfluous. If the level of Outdoor Education is less than desired, then avenues to improve the situation should be explored.

The second research question delves into teachers' perceptions regarding key factors that facilitate or hinder the provision of Outdoor Education experiences for grade 4-7 students. With these bridges and barriers better revealed, one can navigate better through the playing field in order to provide adequate support and effective strategies to enhance provisions for Outdoor Education.

The third research question develops directly from the second. Identifying a problem is a strong start; from there, a planning strategy must be developed. Those who can recognise the bridges and barriers are also great resources for possible solutions to improve Outdoor Education. Teacher bridge and barrier ratings along with their suggestions will be explored in order to answer the third question of inquiry. This will create a basis for action, and a clearer roadmap for interested stakeholders to improve Outdoor Education for students.

Chapter II: LITERATURE REVIEW

2.1 British Columbian Society and its Teaching Context in Relation to Outdoor Education in Grades 4 to 7.

In British Columbia, classroom teachers play a large role in developing and organising the educational programme that is offered to their students (Osborne, 1999; Werner, 1995; B.C. Royal Commission on Education, 1988). Relative to many other jurisdictions in the Western World, B.C. teachers enjoy great freedom in delivering curriculum to students. Prescribed curriculum is set out in Provincial Ministry of Education Integrated Resource Documents (IRP's) (Min. of Ed., 2004a), but it is up to the teacher to use her¹ professional skills and strengths to best implement programming. Sequencing, activities, and specific subject matter choices are left mainly to the classroom teacher. The British Columbia Royal Commission on Education (1988) outlines this when discussing the facets of curriculum:

The Implemented Curriculum is the curriculum as it is interpreted by teachers and brought to life in their classrooms. Differences between the Intended and the Implemented Curriculum are to be expected, in most cases, encouraged. Teachers are professionals who must make decisions about which content is most appropriate for their students, which teaching materials are best suited to their students and the topic under consideration, and which teaching approach is likely to be most effective. Just as provincial curriculum committees must interpret curriculum policy, in order to develop provincial curriculum guides, teachers must interpret curriculum policy, using curriculum guides and other materials as aids. (p. 6)

This reliance on the teacher as a skilled professional has roots in the principles of learning stated by the Ministry:

- Learning requires the active participation of the student.
- People learn in a variety of ways and at different rates.

¹ Feminine pronouns will be used in this study to represent a neutral gender.

- Learning is both an individual and a group process.
(Ministry of Ed., 1995a, p.1)

It is possible that given the guidelines presented in the grade 4-7 IRP's, a British Columbian teacher could thoroughly meet all criteria using entirely an out-of-doors programme. Students would need not step into a conventional classroom until perhaps the writing of Provincial Examinations in grades 11 and 12. At minimum, she would be neglectful to not include any out-of-doors activities. The IRP's include prescribed learning outcomes such as "It is expected that students will participate safely in an outdoor experience" (Min. of Ed., 1995b, p.1) and emphasise that "outdoor activities in a natural setting are encouraged" (Min. of Ed., 1995a, ¶ 1). The Ministry also states:

Direct experience is the basis of learning. Direct experience with the environment, both individually and in groups, is an important and vital way to learn. Such opportunities must be provided for the studies to be relevant, because they help provide students with deeper understanding of natural systems and the impact humans have on those systems.
(Min. of Ed., 1995c, ¶ 3).

The present Provincial Liberal Government also has a "promise to increase physical activity in B.C. public schools" and "wants a broader 'healthy living' plan for schools" ("Province shelves fitness plan for schools," 2004, p. A1). Outdoor Education (OE) could be implemented well to this end.

Not only do curriculum documents and Ministry publications promote the use of Outdoor Education there is a growing base of research literature supporting the use of outdoor education in its many forms. Through the expansive meta-analysis by Hattie et al. (1997) showing an outdoor education average effect size of .34 to McKenzie's (2003) exploration of the means of learning at Outward Bound, outdoor education research shows

positive reviews. This literature base is also growing stronger and more comprehensive with each passing year.

British Columbian society, along with much of Western society, needs to contemplate the advantages of alternatives such as OE as they come to terms with the less physically active lifestyles being led. In a 1994-1995 survey, 30.5% of Canadians were considered obese, and the direct costs of obesity were calculated to top \$1.8 billion (Birmingham et al., 1999). "In 1998, more than half of the Canadian population (50.7%; 61.2% of men and 39.9% of women) exceeded recommended guidelines for healthy weight" (Canadian Institute for Health Information, 2004, p.7). Feeding these symptoms are average Canadian habits such as watching 22.1 to 26.1 hours of television per week (Friends of Canadian Broadcasting, 2003). Outdoor Education can play a key role in positively offsetting these deteriorating and psychologically damaging health trends.

The setting of British Columbia is also important to take into account. The learner and teacher are surrounded by the outdoors with its expansive beauty, challenge and opportunity. British Columbians' backdoors open onto rich green spaces and wilderness that invites learning. Nowhere in the province, not even in the busy metropolis of Greater Vancouver, is one further than an hour away from large green 'classrooms.'

With nature so close at hand, the importance of environmental education in OE is hefty. Environmental issues are of political and social importance in British Columbia, evidenced by the abundance of environmental groups and media coverage on environmental issues. It is of little surprise that Greenpeace began within an environmentally attuned Vancouver (Greenpeace, 2002). Among such a strong culture of environmentalism, OE finds broad support within British Columbian society.

The spotlight on OE is further intensified by the major British Columbian economic sectors. These are “based on the province's great natural resources, primarily its vast forests” (Education Canada, 2003, ¶ 1). Forestry, mining, tourism, fishing and agriculture are all closely tied to the out-of-doors and also the possible gains of OE. It is of no surprise that so many B.C. industry associations and companies back OE programmes with both information and funding (Council of Forest Industries, n.d.; Mining Association of B.C., 2004)

Yet, with so many reasons to include OE in the programming of British Columbian school classrooms, its breadth and depth seems limited. This is not without explanation. As with all programming, OE makes demands upon teachers, students, schools and other stakeholders. A few realities include planning time, lack of resource people, legal liability, restrictive school regulations, lack of administrative leadership, support and encouragement, excessive class sizes, limited available transportation, and the financial restraints of schools (Disinger, 1984). But as noted, demands are a part of all programming and demands need to be met if education is to occur. The question at hand is what the demands are and how they can be overcome. Many educators meet the demands of OE while others do not. There are reasons why teachers choose these paths. By identifying some of these reasons, we can better clear the way for Outdoor Education to be a part of school programming.

2.2 The State of Grade 4-7 Outdoor Education in British Columbian Schools

Some classrooms integrate Outdoor Education into their programming to a great extent while others have little or no Outdoor Education at all. The greatest structured, documented and ongoing Outdoor Education found in British Columbian schools surfaces late in secondary school. A number of secondary schools have even moved to include

specific outdoor education courses. These include schools such as Richmond Secondary with its Outdoor and Environmental 11/12 course (Richmond Secondary School, n.d.) and the TREK Program at Prince of Wales (SD #39, n.d.,a). The North Vancouver Outdoor School and the Northwest Passage Outdoor School of New Westminster are entire schools dedicated to offering Outdoor Education in the Lower Mainland (SD #44, n.d.,a; SD #40, n.d.). However, these offerings still only reach a select few students and are not a part of any student's long-term school education. In fact, elementary schools show little in the way of permanent and documented Outdoor Education programming.² Fortunately, there are numerous inspired and dedicated teachers with a flare for OE, and many elementary schools carry on 'traditions' of Outdoor Education, such as Grade 7 campouts, ski trips, snowshoe excursions or year-end trips to local parks.

One indicator of how little importance has been assigned to outdoor education is the lack of a recent comprehensive survey of B.C. outdoor education. The author of this paper was unable to find a comprehensive survey of outdoor education throughout B.C. more recent than one published in 1972 by McClaren and Ramsay, the same year as Passmore's *Outdoor Education in Canada: 1972*. Interestingly, both publications, like their 1969 predecessor, *Outdoor Education: A survey of activity in Canada* (Nuttall, 1969), speak boldly of vast improvements and expansion in outdoor education. Unfortunately, their claims ring as hollowly as former Eastern Block news of continued improvement in living conditions during the same time period.

Thankfully, a number of forums exist within the B.C. context that link educators using OE in their teaching. These enable one to peer into the workings of OE. One of the

² The most renowned exception is the North Vancouver Outdoor School that has long offered structured programmes specifically geared towards elementary students.

strongest bodies is the Environmental Educators' Provincial Specialist Association (EEPSA), which is a forum under the umbrella of the provincial teachers' union, the British Columbia Teachers' Federation (BCTF). Although EEPSA is very positive in its approach to OE, there is a strong feeling that OE is not as widespread as many members would hope. Although rather tongue-in-cheek, editorialist Metcalfe from the EEPSA Newsletter effectively expresses her viewpoint of OE: "I doubt you'll get a 200 page binder from [the Ministry] anytime soon on environmental education" (Metcalfe, 2002, p.4). It is widely accepted that OE is far from holding the status of other programming, such as those subjects traditionally quantified numerically by the Ministry and accompanied by thick documentation.

2.3 The Classroom Teacher in Relation to Outdoor Education

Connor McCallum, the Outdoor Co-ordinator at West Point Grey Academy, describes B.C. Outdoor Education succinctly: "Most Outdoor Education programmes tend to fluctuate with individual teachers" (personal communication, December 5, 2003). Anne Anthony (personal communication, December 5, 2003), a former professor of Outdoor Education at the University of British Columbia, adds, "Outdoor Education still does not have stability because it always relies on whatever particular teacher is there at the time."

With OE resting so firmly on the shoulders of classroom teachers in British Columbia, it seems appropriate to investigate their thoughts on the issue. For, without knowing teachers' concerns, one is unable to dismantle barriers, and without knowing the bridges teachers recognise, it is impossible to purposefully strengthen them. By identifying teachers' perceived bridges and barriers to offering Outdoor Education, it is hoped that teachers may then be better supported in attaining Outdoor Education goals.

2.4 A Definition of Outdoor Education

At the centre of this study lies Outdoor Education (OE), a term with many meanings. It “has been defined in a variety of ways throughout history” (Adkins and Simmons, 2002, ¶ 3). In this section, various definitions and related nomenclature will be discussed and a clearer description of Outdoor Education, as is it used in this study, outlined.

2.4.1 Outdoor Education Definitions from the Literature

James Neill (2004a) opens his website of Outdoor Education definitions by quoting Brookes (1991): “The meaning of outdoor education is relative to time and place” (¶ 1). Neill continues by cautioning those who read his collection of definitions: “be warned -- such definitions can and should evolve and transform” (¶ 1). In the authors opinion the definitions that follow are appropriate for certain purposes but their validity is temporal and situational. It is hoped that through discussing other definitions, the backdrop of OE as intended in this study will be better understood. The following definitions of OE can be used to clarify meaning in a particular context and none apply to all uses at all times in all contexts.

To begin painting our picture of Outdoor Education, we turn to the *Oxford Shorter Dictionary* (1993):

Outdoor- 1 Situated, performed, or used out of doors; open-air; (of a person) fond of open-air pursuits. (p. 2037)

Education- 1 The process of nourishing or rearing. 2 The process of bringing up children in particular manners, habits, or ways of life. 3 The systemic instruction, schooling, or training of children and young people, or, by extension, instruction obtained in adult life; the whole course of such instruction received by a person. Also, provision of this, as an aspect of public policy. 4 The development of mental or physical powers; moulding of (some aspect of) character. (p.785)³

³ It is interesting to note that the first example of word use reads as follows: “R.LOVELL They delight in woods, and places of their first education” (Oxford, 1993, p. 785)

Bringing these dictionary definitions together creates a springboard for defining Outdoor Education. Fortunately, a dictionary definition is only a peephole into the linguistic, social, emotional, moral and theoretical power that lies behind these words. In this context, 'education' lacks an explicit purpose and seems mechanical. Many would instead support a more Platonic flair to education connected with the virtue of Goodness (Plato, *Republic*) or John Dewey's representation of education as growth (Dewey, 1944). When taken separately, the words neglect the synergistic nature of OE. There is no interplay between how education can benefit from the outdoor setting nor the way the outdoors can be differently perceived with the effects of education.

Phyllis Ford (1986) states that "while there are many definitions of outdoor education, the most comprehensive one seems to be, 'Outdoor education is education 'in', 'about', and 'for' the out-of-doors'" (§ 2). This is powerful as it outlines the 'where, what and why' of OE and many colleagues quote this definition. A weakness exists in this definition because depending on one's reading it can be interpreted as either extremely exclusive or all-inclusive.

Ford (1986) develops this definition further by explaining that the 'for' relates to "learning for the sake of the ecosystem itself" (§ 7). If one considers traditional OE activities such as orienteering or avalanche awareness, one may be hard-pressed to describe how this is 'for the sake of the ecosystem itself.' Perhaps Ford meant to include anything that satisfies one of the three prepositions. This would be flawed, as so many educational activities would satisfy this definition, including any topic about something out-of-doors (buildings, cars, etc.).

Alternately, being less stringent about applying the prepositions, one could include playing soccer on a sports field or swinging on swings as OE as they are 'in' the out-of-doors, 'about' out-of-doors activities, and 'for' the purpose of improving out-of-doors skills. This definition leaves much to interpretation and leaves the classification of many activities ambiguous.

Priest (1986) defined Outdoor Education as "an experiential process of learning by doing, which takes place primarily through exposure to the out-of-doors" (p.13). Priest's definition does justice to much of what happens during OE, but not all activities in OE programming involve the experiential process. Campfire stories or wildlife viewing, for instance, do not strongly focus on the process of 'learning by doing.' OE in these circumstances is simply Experiential Education (discussed below) that takes place out-of-doors.

In 2001, Hammerman, Hammerman and Hammerman defined OE in a straightforward fashion as "education which takes place in the outdoors" (p.5). This simplistic definition is appealing with its inclusiveness, though some educators would argue that much OE takes place indoors. Many outdoor educators implement Kolb's Experiential Learning Cycles (1984) in OE and use his model of 'plan-do-review.' The stages of 'plan' and 'review' can and often do take place in the classroom but are held as pivotal to the Outdoor Education experience. Even without Kolb's model in mind, preparation for, and debriefing after an outdoor experience are considered by many to be part and parcel of OE whether taking place indoors or out.

Edward Lappin (2000) describes Outdoor Education as "a means of curriculum enrichment, whereby the process of learning takes place out of doors. Outdoor education

broadly includes environmental education, conservation education, adventure education, school camping, wilderness therapy, and some aspects of outdoor recreation" (§ 2). One may easily identify with this definition as it stands on our own definitions of other concepts. This is similar to Simon Priest's statement that Outdoor Education is "often synonymous with environmental education and outdoor recreation" (Priest, 1988, p.23). Yet it is important that OE be recognised as something distinct from other expressions or its existence is merely superfluous. Lappin's taxonomy, which places many disciplines under the umbrella of OE, holds merit, but surely there are facets of these disciplines beyond the bounds of OE. Adventure Education, for example, may include indoor gymnastic equipment activities that hardly relate to OE, and recycling programmes of conservation education only have faint ties to OE. Conversely, Outdoor Education may be viewed as a part of a broader Environmental Education.

As other terms enter this discussion, it is appropriate to briefly clarify certain related nomenclature.

2.4.2 Other Nomenclature Related to Outdoor Education

Many terms related to Outdoor Education are used interchangeably with it. This can complicate definitions, but at the same time shed light on how people normally implement or use OE. It highlights the particular facets of OE teachers use for implementation. By understanding these related terms, it is hoped one can better understand OE by its relation to them.

As already mentioned, Adventure Education has close ties with OE. It is discussed at length by Colin Mortlock (1984) and later developed in Simon Priest's (1990) Adventure

Experience Paradigm. Both purposely incorporate risk (perceived or real) to achieve certain aims of education. Within the context of OE, risk is often employed but is also avoided when it is not seen favourably for learning. For example, nature walks and orienteering, which are often a part of OE, do not normally include risk as part of the instructional strategy.

Experiential Education is also commonly discussed in conjunction with OE. Both Experiential Education and OE “can trace their roots, at least in part, to the educational philosophy and methods of John Dewey (1938)” (Adkins and Simmons, 2002, ¶ 1). Kolb (1984) uses the Experiential Learning Theory to describe learning as “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (p.41). It is of little doubt that OE relies strongly on the art of providing real experiences as catalysts to learning and that so many OE activities are examples of Experiential Education. Experiential Education stands apart from OE in that it is a method of teaching, while OE is also related to an environment of learning. Experiential Education can be a part of any classroom activity as long as the learner’s real-world experiences are involved.

The term Environmental Education also shares many pages of literature and educators’ conversations with OE. Adkins and Simmons (2002) state “environmental education can trace its lineage, at least partly, to outdoor education” but add that Environmental Education is “considered a distinct field” (¶ 13). The UNESCO Belgrade Charter of 1975 is often considered a landmark document of Environmental Education and states:

The goal of Environmental Education is:

To develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions to current problems, and the prevention of new ones. (p. 3)

Although this goal is often integrated into OE, it is not a priori a part of OE. In fact, there is concern that certain OE activities, those with a human against nature slant, could work against certain Environmental Education goals by generating an attitude of domination rather than co-existence. Environmental Education can also take place anywhere and does not necessitate going into the out-of-doors. Activities which explore environmental politics, industrial pollution management, and the like from a classroom would surely fall under the heading of Environmental Education but falls short of OE.

2.4.3 The Definition of Outdoor Education as Used in This Paper

As noted before, Outdoor Education “has been defined in a variety of ways throughout history” (Adkins and Simmons, 2002, ¶ 3) and although this may complicate issues at times, what matters is that we strive to be as clear as possible when using a term and making clear the definition intended. Throughout this research study a particular definition of OE was used.

Outdoor Education, for the purposes of this study, is learning which occurs in the outdoors and where the outdoor setting is perceived to affect the learning. This definition describes Outdoor Education in a relatively clear and concise manner.

A major weakness of this definition is that, like other definitions, it excludes education that occurs in a non-outdoor setting, although many educators see it as a part of OE, such as Kolb’s ‘plan’ and ‘review’ stages, preparation, reflection, and other activities.

On the other hand, this point makes it very straightforward that certain activities which educators are often hesitant about labelling are not included. As long as one adheres to this limitation a common understanding is possible.

OE in this context includes any activities that reach outside of the schoolroom into the outdoors: anything from studying schoolyard insects to canoe lessons to multi-day backcountry treks. Activities such as journal writing and painting lessons in the out-of-doors would also fall within this understanding of OE as long as the outdoor setting is part the learning. On the other hand, for the purposes of this paper, OE does not include programming such as environmental or wildlife activities that are solely classroom based, as the learning does not take place out-of-doors.

Certain activities that take place outside would not fall under this definition, as the outdoor setting is not perceived to affect the learning. Although one could argue that the outdoor setting will inevitably affect any learning activity that takes place out-of-doors, the effect may be negligible. Basketball being played out-of-doors may be an example of this. The outdoor settings may merely be one of two available venues and whether the class takes place indoors or out may be of little consequence. If the playing surface and other environmental characteristics are similar to a gymnasium, the outdoor setting does not overtly affect the learning. Similar arguments could be used for soccer, volleyball, etc.

Yet, if students are taken out to play soccer in the pouring rain on a slippery field where their skills are honed for this outdoor playing, this fits better into the study's definition of Outdoor Education. Games that incorporate the outdoor setting (Capture the Flag in a Forest, Eagle Eye, etc.) are further examples of activities that could be played indoors but in an outdoor setting becomes an Outdoor Education experience.

This definition is not without flaws, but it does offer a relatively concise definition; one that allows teachers to determine if activities fit the description or not. The term Outdoor Education used by the researchers throughout this study refers to this definition and understanding.

Chapter III: METHOD

3.1 Research Design

This descriptive study employed a questionnaire to investigate three areas of inquiry: the extent to which Outdoor Education is offered in schools, the bridges and barriers teachers perceive, and how those bridges and barriers can be affected. Questionnaires were collected from a total of 120 grade 4-7 British Columbian teacher participants. Quantitative responses were analysed using descriptive statistics, while open-ended answers were analysed thematically to more fully highlight the questions under investigation.

The use of questionnaires made it possible to survey a reasonable number of participants with the available resources. It afforded teachers a strong feeling of anonymity as well as the ability to set their own pacing for completion. A major drawback was that this gave no medium to further investigate points of interest discovered in participants' responses.

Teachers should be well aware of how much OE they offered their classes, and therefore seem the most valid resource for obtaining information on this first area of inquiry. Teachers are also an appropriate source for exploring the second question of inquiry explaining their own perceptions of bridges and barriers to OE and. The third question of inquiry, dealing with what can be done to change the bridges and barriers, is where teachers as the sole informants may become noteworthy. Surely, those on the front lines of education have many valuable and possibly effective suggestions, but other stakeholders also carry opinions worthy of contemplation. Although I believe teachers are the best starting point to gain insight for improvement, one must keep in mind the bias inherent in confining the participant group to teachers. Teachers have particular characteristic and often have focused goals that emphasise certain issues. Teachers may be less interested in political agendas,

financial concerns or the complex context of schools in society. The perceptions of administrators, students, parents and others often differ from teachers' yet are very valuable when looking to support change.

In keeping with all studies of this sort, ethical issues were considered. These included the impact on participants, the validity of the design, and the impact of the results. To further ensure ethical issues were addressed this research project was proposed to the Behavioural Research Ethics Board at the University of British Columbia from which it received approval (October, 2004).

3.2 Participants

3.2.1 Participant Criteria for Inclusion

Teachers who were grade 4-7 classroom teachers during the 2003/2004 school year were invited to participate in the study. The intent was to survey teachers, whose teaching context could be identified with by the majority of grade 4-7 B.C. teachers. A total of 120 teachers participated in this study. As there were approximately ten thousand grade 4-7 teachers in British Columbia during 2003/2004 (Min. of Ed., 2004d), the sample represents approximately 1.2% of the target population.

Teachers were not given a specific definition of 'classroom teacher' although responses under *Teaching Position* on the questionnaires normally listed either grade levels taught or a specialization and grade. Exceptions to this are discussed under *3.2.3 Participant Demographics, Grades Taught*¹.

¹ One participant was excluded from calculations investigating the extent of Outdoor Education offered. This participant identified herself as a district specialist and questionnaire remarks show that she does not represent

To be included in the study as a participant, teachers needed to successfully complete the research questionnaire in a manner that showed they understood the questionnaire and that their answers could rationally reflect their opinions. Six questionnaires were not included because they did not fulfill these criteria. Four questionnaires were only partially completed and in a seemingly haphazard fashion. The other two showed incongruous answers (e.g. all variables shown to be bridges in one section, and then listed the same variables as barriers in another).

Prospective participants were given the questionnaire with a cover letter (Appendix I) that stated, "Participants must be public school intermediate classroom teachers who taught during the 2003/2004 school year in B.C." For a teacher to be given a cover letter and questionnaire, they were first asked if they had taught a grade 4-7 class² during the 2003/2004 school year.

A few teachers replied that they had taught in a private school but wished to participate. They were invited to participate and indicated 'Independent School' under *School District* on the questionnaire. The original reason for excluding private school teachers from the study was the concern that a private school teaching context may differ noticeably from public schools and therefore skew results from the normative public school experience. This was of particular concern with 'elite' private schools³. The private school teachers who participated indicated they were from denominational schools and not from

any particular class per se. She supports other classroom teachers to offer Outdoor Education and other programmes throughout the district. Every experience she would be involved in would also have a 'nominal' classroom teacher involved. This would mean that her answers would be duplicates of those classroom teachers she supported. She indicated she had been involved in over 26 non-overnight OE experiences, a total of 12 nights of overnight experiences, and involved with an Outdoor Club.

² 'Grades 4-7' was understood to be synonymous with 'intermediate', but later only the more concise phrase of 'grade 4-7' was used.

³ 'Elite' private school is meant to denote schools with very high tuition fees (over \$10 000 CDN per annum), which mean financial and staffing contexts are very different from the public school teacher's experience.

'elite' private schools. The data from the private school teachers are discussed in the analysis.

Two teachers indicated that they were grade 4-7 classroom teachers during the 2002/2003 school year and earlier, but during 2003/2004 they had taught something else. They stated that they could complete the questionnaire from the viewpoint of a grade 4-7 teacher. Questions regarding the 2003/2004 school year on their questionnaires were answered in respect to their 2002/2003 teaching year. Under Teaching Position they indicated they had taught grade 4-7 during 2002/2003. Their data were treated as other participants' data.

Teachers who taught smaller groups of students (e.g. Learning Assistance Teachers) were not invited to participate. Their teaching context was seen to differ too greatly from that of the majority of classroom teachers, the intended target population.

One Teacher-On-Call teacher was included in the study as she considered herself to be a classroom teacher. The data from the Teacher-On-Call participant was treated as other participants' data.

3.2.2 Venues for Recruiting Participants

Grade 4-7 classroom teachers were invited to participate at four professional development conferences held in the Lower Mainland of British Columbia. The four conferences were held simultaneously on Friday, October 22, 2004, a provincial professional development day in British Columbia⁴. Two research assistants were in charge of a booth at each of the conferences.

The four conferences with their respective venues in brackets were:

⁴ The Provincial Intermediate Teachers' Association Conference was on both Oct. 22 and 23, 2004.

- The Provincial Intermediate Teachers' Association Conference
(Burnaby Mountain Secondary School)
- The B.C. Social Studies Teachers' Association Fall Conference
(J.N. Burnett Secondary School)
- The B.C. Teachers of English Language Arts Conference
(Vancouver Technical Secondary School)
- The Physical Education Provincial Specialist Association and Douglas College's 17th Annual QDPE Professional and Personal Development Conference
(Douglas College)

Generally, B.C. teachers may choose to partake in many professional development activities on provincial professional development days. Attending these conferences is one option. These conferences were all in the Greater Vancouver Regional District (GVRD) and fee paying, which included membership fees to the sponsoring associations. Although school districts vary, most teachers may apply to have conference fees subsidized by professional development funding if available. The Intermediate Conference included a subsidy for Burnaby School District teachers, as the Burnaby School District sponsored the venue.

These four conferences were chosen because they were expected to have the largest numbers of Grade 4-7 classroom teachers in attendance among the 24 conferences listed on the B.C. Teachers' Federation Professional Development Calendar website (BCTF, 2004). By inviting participants from all four conferences, it was hoped to gain a more diverse population of teachers. A fifth conference, The B.C. Teachers for Peace and Global Education Conference, was originally considered, but the organiser felt that the conference would be too small for research purposes. Two other conferences that would have normally been of interest were those sponsored by the Environmental Educators' Provincial Specialist

Association (EEPSA) and the B.C. Science Teachers' Association (BCScTA).

Unfortunately, EEPSA did not have a conference at this time, and BCScTA's workshop dealt with genetics and was aimed towards teachers of more senior grades.

3.2.3 Participant Demographics

Conference of Origin

Participants were included from all four conferences. The vast majority of study participants were from the Provincial Intermediate Teachers' Association Conference. Prospective teachers at all conferences were offered the opportunity to return the questionnaire by mail. Those questionnaires returned by mail, for reasons of confidentiality, did not include identifiers of conference origin. Participants' distribution from the conferences and mail are: 85 from the Provincial Intermediate Teachers' Association Conference (PITA), 3 from the B.C. Social Studies Teachers' Association Fall Conference (BCSSTA), 2 from the B.C. Teachers of English Language Arts Conference (BCTELA), 7 from the Physical Education Provincial Specialist Association and Douglas College's 17th Annual QDPE Professional and Personal Development Conference (PEPSA), 22 by mail (conference origin not identified). Figure 1 shows this distribution.

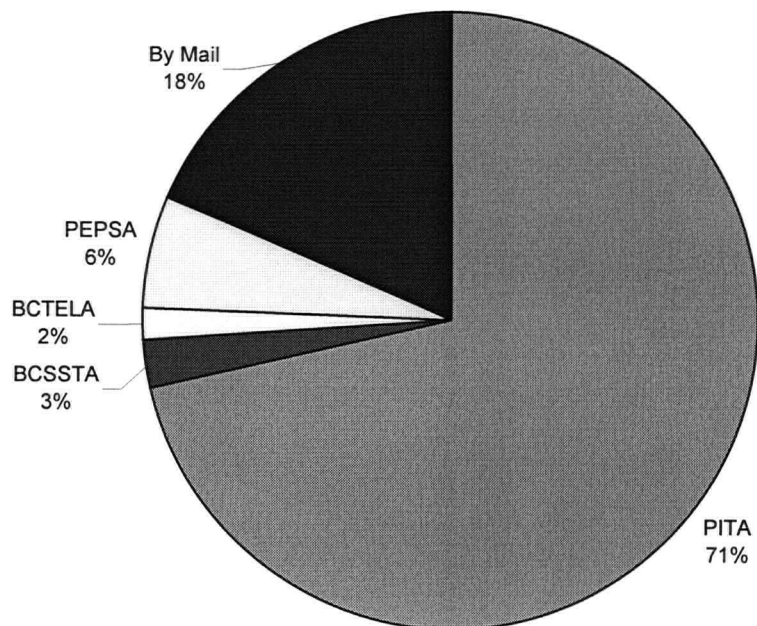


Figure 1. Participants' Conference of Origin

The fact that all participants were invited to participate through attendance at provincial professional development conferences may impact the representative nature of the study. Attendance at these workshops is a sign of particular initiative and therefore the participants represent a particular cross-section of teachers. It could be argued that the teachers at these conferences would be more likely to offer OE to their students and that there opinions may slant towards more involved and enterprising teachers. This would mean that the data may over represent the amount of OE offered and certain views expressed may contain sample selection bias.

School District

All participants identified their school districts or that they were from an independent school. Of the 59 geographic school districts in British Columbia (Min. of Ed., 1996), 31, or

53%, had some representation. The 31 school districts represented in the study represent 74% of the public school students in British Columbia. The 11 geographic school districts of the Greater Vancouver Regional District (GVRD)⁵ were represented by 73 out of the 120, or 60.8%, of the participants. The GVRD school districts represent 48% of public school students in British Columbia (Min. of Ed., 2004d). The independent school system⁶ was represented by 11, or 9%, of participants. Independent schools represent approximately 10% of B.C. elementary and secondary students⁷. The geographic locations of the independent schools were not included in this study. Figure 2 shows how many teachers came from each district.

⁵ The 11 geographic school districts of the Greater Vancouver Regional District are: #35 Langley, #36 Surrey, #37 Delta, #38 Richmond, #39 Vancouver, #40 New Westminster, #41 Burnaby, #42 Maple Ridge- Pitt Meadows, #43 Coquitlam, #44 North Vancouver, and #45 West Vancouver (GVRD, 2004; Min. of Ed., 1996).

⁶ Participants that identified they were in an independent school and identified the geographic public school district their school was in were counted as independent schoolteachers only.

⁷ 63 320 of the 680 994 B.C. school students attended independent schools during the 2003/2004 school year (Min. of Ed., 2003).

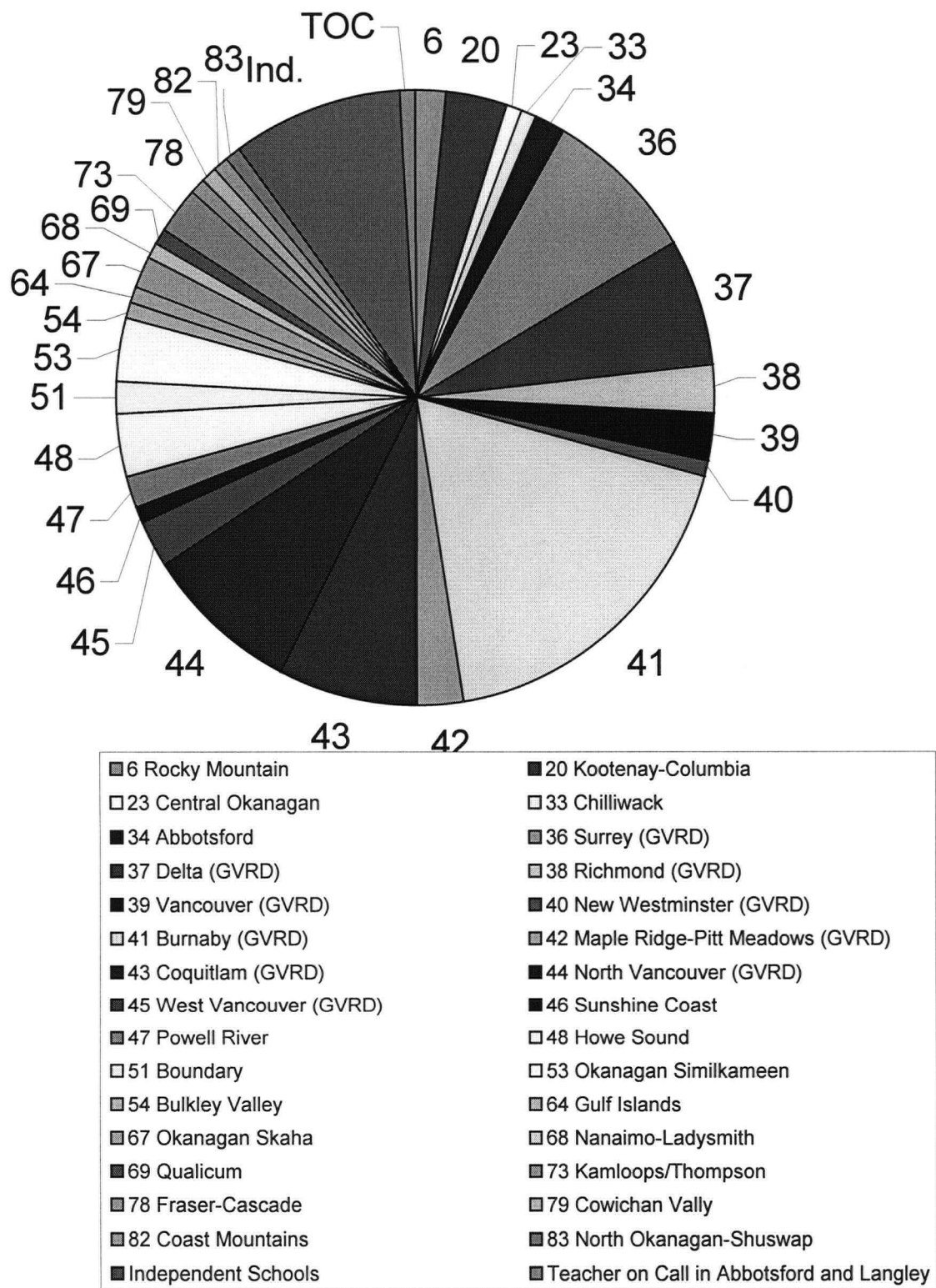


Figure 2. *District Representation*

Grades Taught

One hundred thirteen out of one hundred twenty participants indicated the grade or grades they taught. Seven participants identified themselves without grade affiliation. Sixty, or 53%, of participants identifying grade affiliation taught a straight grade. Fifty-three, or 47%, of participants identifying grade affiliation taught a split grade or multiple grades. Thirteen, or 11%, of all participants identified themselves as specialists.

Table 1 shows the grade levels participants taught. Due to the high number of combined grade teachers and other more diverse teaching assignments, it is difficult to show participant grade level trends in a concise fashion. To show a more concise representation of the grade levels taught, the following was done: Teachers who indicated they taught more than one grade were divided evenly into the grades they indicated they taught. Therefore, a grade 5/6 teacher would be equal to a 0.5 grade 5 teacher and a 0.5 grade 6 teacher. Specialists were divided among the number of grades they indicated they taught. Grades beyond the limits of 4-7 are not displayed although some participants taught a portion of their assignments in these grades. Table 2 shows the more complex responses teachers gave for their teaching position and how these teachers were assigned to each grade. Using this method, equivalent participants per grade are: 26.5 grade 4 teachers, 23 grade 5 teachers, 33 grade 6 teachers, and 29 grade 7 teachers. Figure 3 shows the total equivalent teachers per grade.

Table 1

Grades Taught by Participants

Grade Taught	Grade 4	Grade 5	Grade 6	Grade 7	Grade 3/4	Grade 4/5	Grade 5/6	Grade 6/7	Other
Number Of Teachers	18	11	15	16	1	12	8	20	19

Table 2

Grade Assignment for Participants with More Complex Teaching Assignments

Teaching Position Response	Grade 4	Grade 5	Grade 6	Grade 7	Grade 3/4	Grade 4/5	Grade 5/6	Grade 6/7	Other
Total FTE assigned to each grade rounded to the nearest whole	2	2	4	3					
Total FTE assigned to each grade grade 6 .4 classroom teacher and TOC	1.95	2.1	4.05	3.3					
PE specialist- middle grade 6-8 k-5 PE specialist	.1	.1	.5	.1					
Grade 6 classroom - PE specialist 1-10	.05	.05	.65	.05					
PE/French Language Specialist k-6 TOC	.15	.15	.15	.15					
Grade 6-8 Split Teacher FSL 6-9			.3	.3					
Grade 4/5/6/7	.25	.25	.25	.25					
4/5/6/7 French/ Computer Classroom-4 / Music k-8	.25	.25	.25	.25					
Prep (FSL, PE, Social Studies, Fine Arts) Grade 5-7	.5	.1	.1	.1					
Student Support Teacher .5 6/7 .5 Library 5/6 & 7	.25	.25	.25	.25					

*Four teachers were not assigned to any grades. One teacher identified herself as a district specialist, one wrote 'yes', and two simply wrote 'teacher'.

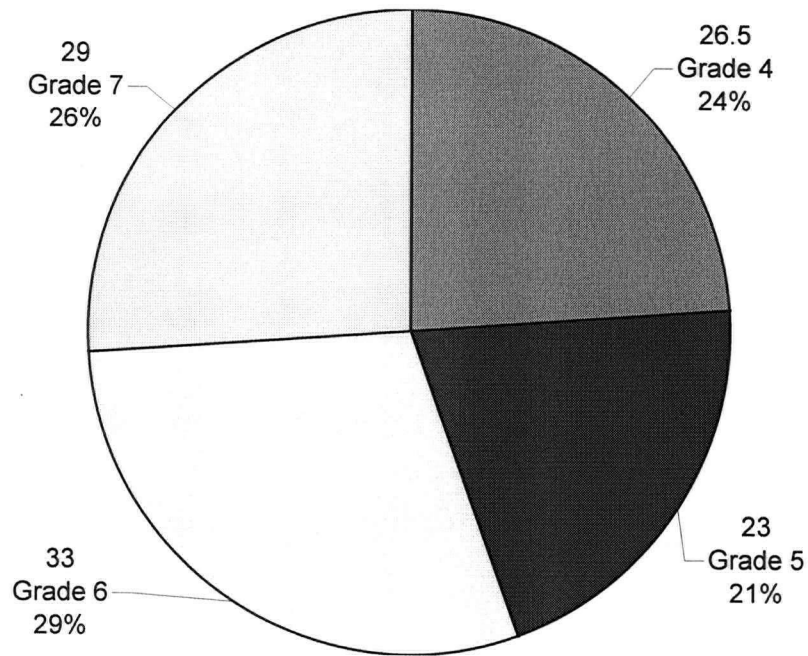


Figure 3. *Total Equivalent Teachers per Grade*

Demographics Not Included

It is appropriate to mention that certain demographics were not collected. This was done with intention. It is felt that certain demographics can lead to inappropriate postulation of trends that cannot be supported with this data collection. Demographics not included for this reason include gender and years of experience teaching.

3.3 Procedures

3.3.1 Questionnaire Design

The 4-page, seven-sided questionnaire employed for this study was entitled “Grade 4-7 Teacher Questionnaire on Outdoor Education” (Appendix II). This measurement instrument was designed for this study.

The questionnaire is composed of 5 sections:

- a. Demographics
- b. Extent of Outdoor Education Offered
- c. Bridge and Barrier Ratings
- d. Strongest Two Bridges and Barriers
- e. Optional Open-Ended Comments

Each section is discussed below.

a. Demographics

Only two questions make up this section of the questionnaire: one asking participants to identify their school district and one to identify their teaching position during the majority of the 2003/2004 school year. Other possible demographics of interest were contemplated, but it was decided that other demographics were not essential to the study. The study was blind in relation to gender, religion, race, age and years of teaching experience.

b. Extent of Outdoor Education Offered

This section of the questionnaire underwent multiple revisions. Originally, this section of the questionnaire was designed to be a basis for a comprehensive examination of Outdoor Education currently offered in B.C. This would have opened avenues to investigate correlations between bridge and barrier perceptions and certain behaviours of offering OE. Unfortunately, there was a concern that only a very small percentage of participant teachers offer enough OE for this type of analysis. This would make finding statistically significant correlations unlikely unless the sample size was increased greatly. Instead, with our participants and study size in mind, this section was designed to collect a quantitative snapshot of how often teachers offered OE to their students. This allowed for descriptive statistics to be made and the identification of participants as offering low, medium or high amounts of OE. The descriptive statistics gathered in this manner also gives guidance of how a more comprehensive survey of OE offerings might be constructed.

This section on the questionnaire began with the following as guidance for completing the questionnaire:

Outdoor Education is when the process of learning takes place out-of-doors and the outdoor environment is meant to affect the learning.

Examples:

*Canoeing
Collecting insects from the school grounds
Park walks
Poetry writing in the out-of-doors
Outdoor Orienteering*

Non-Examples:

*Soccer on the sports field
Environmental Ed. in the classroom
only
Indoor Aquarium visits*

The decision to use this definition is expanded upon in the literature review. When the data are analysed, the inclusiveness of this definition should be kept in mind.

All of the questions about the amount of OE offered refer to the entire 2003/2004 school year. Non-overnight experiences were to be identified by circling the appropriate

frequency. Overnight experiences were to be identified by circling *yes* or *no* and giving the number of nights total. Extra-curricular activities were to be identified by circling *yes* or *no* and blank lines were given for an explanation (See Appendix II).

In relation to the non-overnight experiences, four frequency choices were presented: *a. 0-5 times, b. 6-10 times, c. 11-25 times* and *d. 26 or more times*. This was done so that participants could feel comfortable in giving a reasonable estimate of what they had offered¹. These choices also translate well into monthly approximations: 0-5 equates to no more than once every two months, 6-10 times includes up to once a month, and 11-25 times is over once a month to over twice a month. The fourth choice was left to identify teachers that offer OE on average every two weeks; as the results show, this choice may have been superfluous.

c. Bridge and Barrier Ratings

This section was designed to survey teachers' opinions of various factors related to offering Outdoor Education. Participants rated 50 different factors as making them more likely (bridges) or less likely (barriers) to offer OE. A -5 to +5 scale was given for each factor with -5 denoting a very strong barrier and +5 as a very strong bridge. Eleven blank scales were supplied at the bottom where participants could add any factors they wished to include and rate them.

The factors provided for rating were derived from various sources. Literature provided a base of factors that are commonly discussed as the major bridges and barriers to Outdoor Education (including: Attarian, 2001; Disinger, 1984; Richardson and Simmons, 1996; Simmons 1998; Michie, 1998). These base factors, such as 'preparation' and 'student

¹ A choice of '0 times' was contemplated but concerns of participants avoiding this answer in the interest of maintaining professional face struck it from the questionnaire.

gains', were rather general while the research hoped to closer pinpoint bridges and barriers. It was hoped more specific factors could be identified so that they could be worked with to improve OE opportunities.

To develop more specific factors, a master list of factors believed to affect OE was brainstormed. Any factor which appeared in any study, journal, newsletter, newspapers, website or conversation was added to the list. Teachers were informally asked about factors they felt had relevance and those were added to the list. Eventually, saturation seemed to be reached and no further factors were being added to the list. At this stage, the list was crammed with extremely specific points, practical duplications, and some rather eccentric ideas.

To construct a workable sized list for the study, ideas were synthesised or removed if seen as less significant by the researcher to bring the list down to 50 factors. The 50 factors were seen to incorporate all concerns of the master list to some extent yet maintained a workable amount of precision.

The new list was then piloted by four selected teachers, who were asked to add to the list if they felt it appropriate. Although some teachers added one factor to their lists, the additions fell under the same scrutiny as those from the master list and were not appended to the 50. In fact, all but one added factor ('students come to school with inappropriate clothing') were on the original master list.

The selected 50 factors were to be rated on -5 to +5 scale. This 11-point scale gave the participants a large range from which to choose. This range was hoped to promote a variety of ratings for the factors. Teachers who piloted the questionnaire as well as a couple

of participants, commented upon the 11-point scale. Some liked the opportunity of precision while others found it demanding.

The rating scale was labelled 'Strong Barrier' on the far negative side and 'Strong Bridge' on the far positive side. 0 was not labelled.

One of the pilot teachers recommended labelling the 0 as 'N/A' or 'Does Not Play a Role'. In hindsight, it is possible that offering more guidance in relation to a 0 rating may have been beneficial, as well as adding a separate 'Not Applicable' rating. This was not done, as it was thought at the time that further explanations on the questionnaire would increase time demands on participants. Zero was left unlabelled with the intent that it would represent that the factor had neither positive nor negative net result. This could be because it was not applicable or may indicate that a factor is equally a bridge and a barrier (e.g. Administration may demand copious paperwork but simultaneously offers others organisational assistance. This bipolar factor may not make a teacher more or less apt to offer OE but it is very much applicable). It is interesting to note that the participants from independent schools marked the questions pertaining to the teachers union (which they are normally not a part of) with N/A, that it did not apply or with a 0 rating.

d. Strongest Two Bridges and Barriers

In this section, participants were able to identify what they perceived as their strongest two bridges and barriers and then provide a short description of those factors. This allowed participants to go beyond the confines of the rating scale. It was also expected that multiple factors would be rated with -5's and +5's, making ordinal ranking difficult.

The descriptions of the bridges and barriers were of particular interest because what is understood by the phraseology of the factors can be diverse. The 50 factors rated in the previous section were not accompanied by any further descriptions and so certain assumptions need to be made about how participants understood the phrases. This section of the questionnaire allows for a fuller description of the various phenomena participants describe.

The wording of this section allowed participants to provide either the two strongest bridges they perceive to currently exist, or the two strongest bridges they believe should exist. The wordings of some answers indicated participants were identifying bridges they hoped would exist in the future.

The wording also allowed participants to list the two barriers they perceive to currently exist, or the two strongest barriers they conceive could exist. It is unlikely that a teacher would believe they were expected to identify the two strongest hypothetical barriers. The strongest barriers, hypothetically speaking, could include 'Students are not allowed to leave the classroom ever,' or 'All students have breathing problems outside of the classroom,' or any other extreme barrier. It is assumed teachers identified currently existing barriers.

e. Optional Open-Ended Comments

This section provided an opportunity for participants to share any information they felt was relevant to the study. A full lined page was provided for participants with the option to continue on the back of the page. It was expected that many teachers would provide useful information when given this open medium.

3.3.2 Procedures at the conferences

At each of the four conferences, a booth was set up with a poster inviting grade 4-7 teachers to participate in a U.B.C. research study. The poster also stated that teachers would receive a small gift for participating. Appendix III is a copy of the booth poster. A larger more colourful poster was also displayed. Gifts were displayed at the booth, which included toques, hats, gum, granola bars, protein bars and electrolyte drinks.

Prospective teachers who approached the booths were asked if they had taught grade 4-7 during the 2003/2004 school year. If they had, they were invited to participate and offered a covering letter and questionnaire (Appendix I and II) to read. Those who met the participant criteria and were interested in participating completed a questionnaire. Questionnaires could be completed immediately, returned at a later time during the conference, or returned by mail in a self-addressed stamped envelope provided. Gifts were given upon returning the completed questionnaires, or if participants agreed to return them by mail, gifts were given with the self-addressed stamped envelope. A number of teachers requested covering letters, questionnaires and self-addressed stamped envelopes to pass on to their colleagues. A note attached to the self-addressed stamped envelope requested completed questionnaires be mailed by November 2, 2004.

Chapter IV: DATA ANALYSIS AND COMMENTARY

4.1 Data Entry

Questionnaires were accepted up to and including November 22, 2004, twenty days after the date by which participants were requested to mail the questionnaires.

The 6 questionnaires that did not meet the criteria as outlined in *3.2.1 Participant Criteria for Inclusion* were removed from the sample.

Quantitative data from the participant questionnaires were entered into a Microsoft Excel© spreadsheet. This included the demographic information, the extent to which OE was offered, numerical ratings of the 50 factors, any factors participants added, and the strongest two barriers and bridges given by participants.

To ensure the accuracy of entered data, entries were then read aloud by one researcher while a second checked the corresponding questionnaire for accuracy.

4.2 Demographic Statistics

Using Microsoft Excel© functions, participant school district, conference of origin, and grade level trends were investigated. The findings are outlined in *3.2.3 Participant Demographics*.

4.3 To What Extent is Outdoor Education Being Offered to Grade 4-7 Elementary School Students in British Columbia?

Using Microsoft Excel© functions, the extent of Outdoor Education offered was investigated. Non-overnight, overnight and extra-curricular offerings were explored in relation to the entire sample as well as multiple contextual, grade-differentiated, and data-related subgroups.

4.3.1 Non-Overnight Outdoor Education Frequency

All participants identified the frequency with which they offered non-overnight OE experiences during the 2003/2004 school year. Seventy-seven participants, or 65%, indicated they offered OE experience 0-5 times during 2003/2004. Thirty-one participants, or 26%, offered 6-10 OE experiences. Eleven participants, or 9%, offered 11-25 OE experiences. No participants other than the District Specialist indicated offering 26 or more non-overnight OE experiences. This information is shown in Figure 4.

Giving teachers frequency ranges from which to choose meant a precise number of experiences offered to students could not be exactly ascertained, although teachers could feel more confident in their answers (one must remember that the questions related to what was done in the previous year). To create a better picture of how many experiences were offered, three calculations were carried out: maximum, minimum and 'middle' number of experiences were calculated.

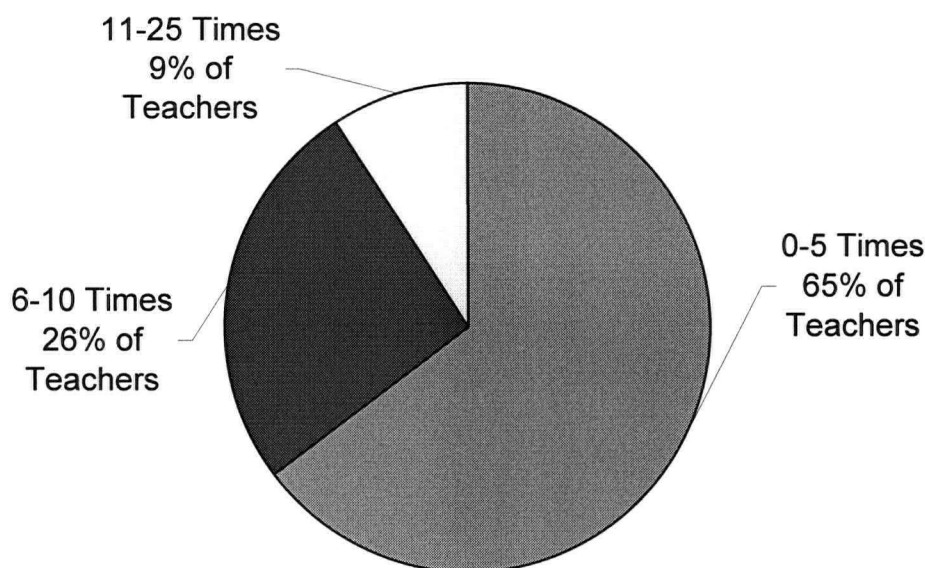


Figure 4. *Number of Times Teachers Involved their Classes in Non-Overnight Outdoor Education Experiences During the 2003/2004 School Year.*

The maximum number of experiences was calculated by taking the maximum frequency in the range and multiplying this by the number of teachers indicating each selection. An answer of 0-5 times became 5, 6-10 times became 10, and 11-25 became 25. The maximum number of experiences offered by the 119 teachers was then 970. This equates to an average of 8.2 experiences offered per teacher.

The minimum number of experiences was calculated by taking the minimum frequency in the range and multiplying this by the number of teachers indicating each selection. An answer of 0-5 times became 0, 6-10 times became 6, and 11-25 became 11. The minimum number of experiences offered by the 119 teachers was then 307. This equates to an average of 2.6 experiences offered per teacher.

The 'middle' number of experiences was calculated by taking the middle frequency in the range and multiplying this by the number of teachers indicating each selection. An answer of 0-5 times became 2.5, 6-10 times became 8, and 11-25 became 18. The 'middle' number of experiences offered by the 119 teachers was then 639. This equates to an average of 5.4 experiences offered per teacher.

The 'middle' number of experiences is taken to be a reasonable representation of how much non-overnight OE is actually offered. A frequency of 5.4 times per 10 month school year is only just more than once every two months.

4.3.2 Overnight Outdoor Education Frequency

All participants identified the number of nights they offered overnight OE experiences during the 2003/2004 school year. Seventy-eight participants, or 66%, indicated they did not offer an overnight OE experience. Forty-one participants, or 34%, did offer an overnight OE experience to their students.

Out of all teachers, the average number of nights offered was 0.95. The modal and median number of nights offered by all teachers was 0. A total of 113 nights were offered among the 41 participants who did offer overnight OE experiences. Of the teachers who offered an overnight OE experience, the average number of nights was 2.8, while the modal and median number of nights were both 2. The number of overnight OE experiences offered by teachers is displayed in Figure 5.

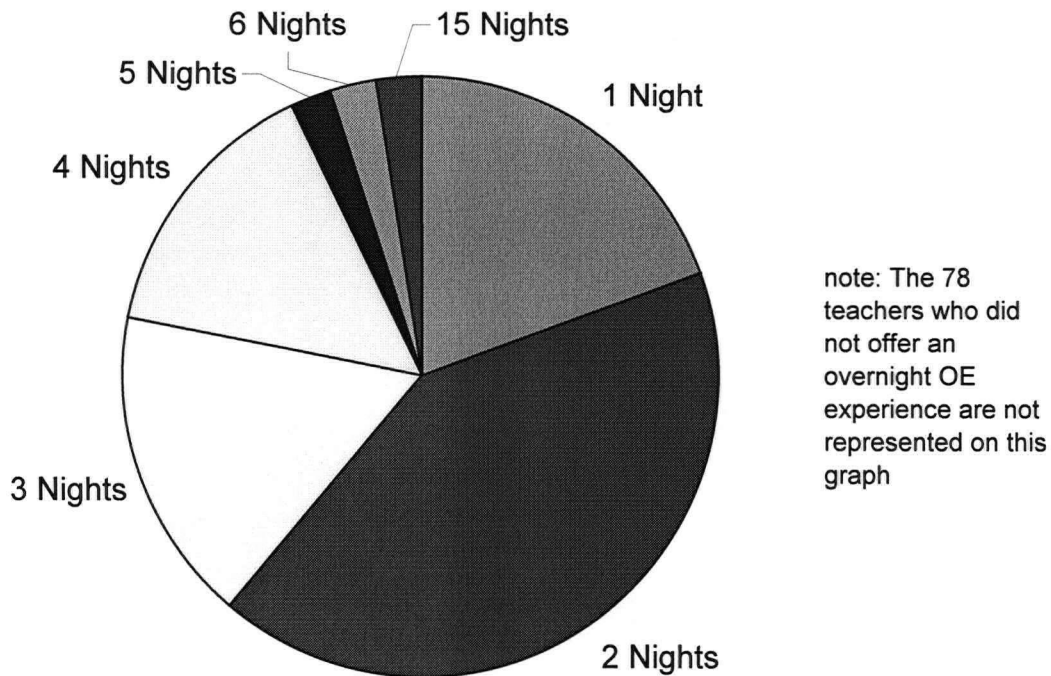


Figure 5. *Number of Overnight Outdoor Education Experience Nights Offered by Teachers.*

4.3.3 Extra-curricular Activities

Fourteen participants, or 12%, indicated they offered extra-curricular Outdoor Education in the form of a club, team or similar structure during the 2003/2004 school year. Extra-curricular offerings included mountain biking, canoeing, cross-country running, skiing, snowboarding, ultimate, orienteering, snowshoeing, environment club, dragon boating, rock climbing, hiking, kayaking, and horseback riding.

4.3.4 Non-Overnight and Overnight Experiences Combined

To give a summary of how much Outdoor Education a teacher on average offers a class, both non-overnight and overnight experiences must be combined. A maximum, minimum and 'middle' average were calculated.

The average maximum number of non-overnight experiences was 8.2. The average number of nights was 0.95. If every night experience was separate (meaning each is a single-night experience¹), then each night translates into two separate days. This would give a rounded total of 10 Outdoor Education experiences per school year, which is approximately once a month.

The average minimum number of non-overnight experiences was 2.6. The average number of nights was 0.95. If each teachers' indicated number of nights offered were always taken together (meaning five nights would total six days), the lowest possible number of days of overnight OE would equal 1.3 on average. This gives a rounded total of 4 Outdoor Education experiences offered per school year, which is less than once every two months.

The average 'middle' number of non-overnight experiences was 5.8, and the average number of nights was 0.95. The overnight experiences must translate to an average number of days somewhere between 3.9 (maximum) and 1.3 (minimum). Assigning a reasonable estimate anywhere between 2.6 and 1.7 produces a rounded total of 8 Outdoor Education experiences per school year. During a 40-week school year, 8 experiences is approximately one experience every 5 weeks. Those experiences could vary from a quick ten-minute foray outside to collect leaf specimens to full-day hikes into the backcountry to explore geological outcrops.

¹ This ignores any experiences longer than a single night. Teachers that offered a two-night experience did not offer four days of OE as the suggested calculation demands, not to mention longer trips.

4.3.5 Teachers Offering Low, Medium and High Amounts of OE

To investigate how many teachers were offering differing amounts of OE, a system was designed for labelling participants who offer low, medium and high amounts of OE². To do this, levels were assigned according to the estimated total OE experiences offered by each teacher. To estimate this, each teachers' 'middle' number of non-overnight experiences was added to twice the number of overnight nights they offered, and then another 7 experiences were added if they offered extra-curricular OE. This result was named the 'amount of OE score.' The equation for this calculation is:

$$\begin{array}{r} \text{('middle' number of non-overnight OE experiences)} \\ + 2 \times \text{(number of overnight OE nights)} \\ + 7 \text{(if extra-curricular OE was offered)} \\ \hline \text{amount of OE score} \end{array}$$

Low, medium and high amounts of OE were designated as follows:

Amount of OE score below 5 (on average less than one OE experience every two months)

→ Low OE offered

Amount of OE score 5-10 (on average once every one to two months)

→ Medium OE offered

Amount of OE score over 10 (on average more than one OE experience per month)

→ High OE offered

Using these perhaps generously defined labels, 46% of teachers offer low OE, 31% offer medium OE, and 23% offer high OE. Figure 6 shows this distribution.

² The labels of low, medium and high do not reflect the amount of OE that is considered to be educationally appropriate. The label of 'high' does not necessarily correspond to a 'good amount,' nor does 'low' necessarily correspond to 'not enough.' The labels are simply a way of grouping participants according to the relative amount of OE they offer.

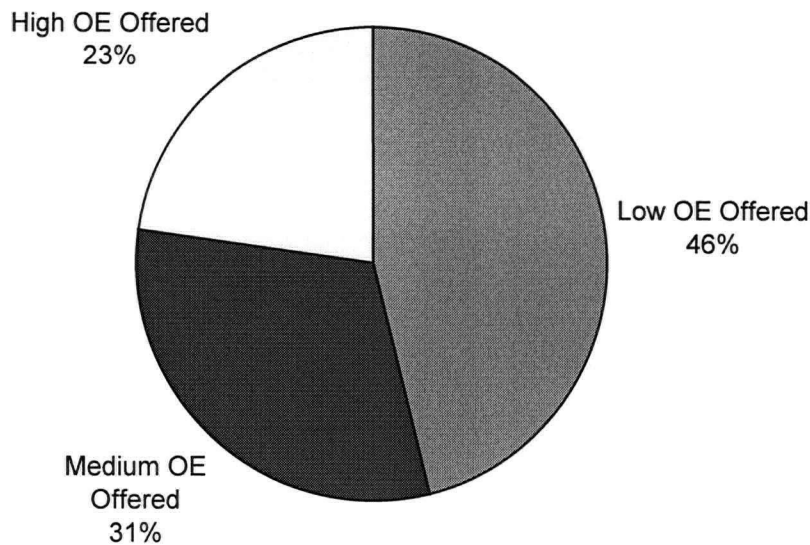


Figure 6. *Teachers who offer Low, Medium and High Levels of Outdoor Education.*

4.3.6 Extent of Outdoor Education Offered by Contextual Subgroups

These same calculations were also done with the following contextual subgroups: Greater Vancouver Regional District (GVRD) (not including Independent Schools), Non-GVRD (not including Independent Schools), Independent Schools, and #44 North Vancouver School District.

These subgroups were chosen because of varying teaching contexts. The GVRD offers a metropolitan setting, which is unique in the province³. The Non-GVRD Subgroup, therefore includes teachers in a non-metropolitan context. The independent schools function under different administration systems, student populations and possibly an imposed religious context. School District #44, North Vancouver, was chosen as a subgroup because of its financial and administrative support to the North Vancouver Outdoor School (NVOS).

³ The GVRD has a population of 2 126 806 (GVRD, 2004). The second largest population base in the province is the Capital Region, with a population of 340 132 from which no participants originated. There are no other population bases over 300 000 in the province (Min. of Management, 2003).

NVOS offers extra OE opportunities to North Vancouver teachers and students, not afforded to others (S.D. #44, n.d.,c). North Vancouver School District participants were still included as a part of the GVRD.

Attention should be given to the relatively small subgroup sample size of the Independent Schools (n=11) and #44 North Vancouver School District (n=10). The GVRD (n=72) and the Non-GVRD (n=36) Subgroups consist of healthier sample sizes.

The extent of OE offered by these contextual subgroups is shown in Figure 7, Figure 8, Figure 9, and Figure 10. This information is also included in Table 3.

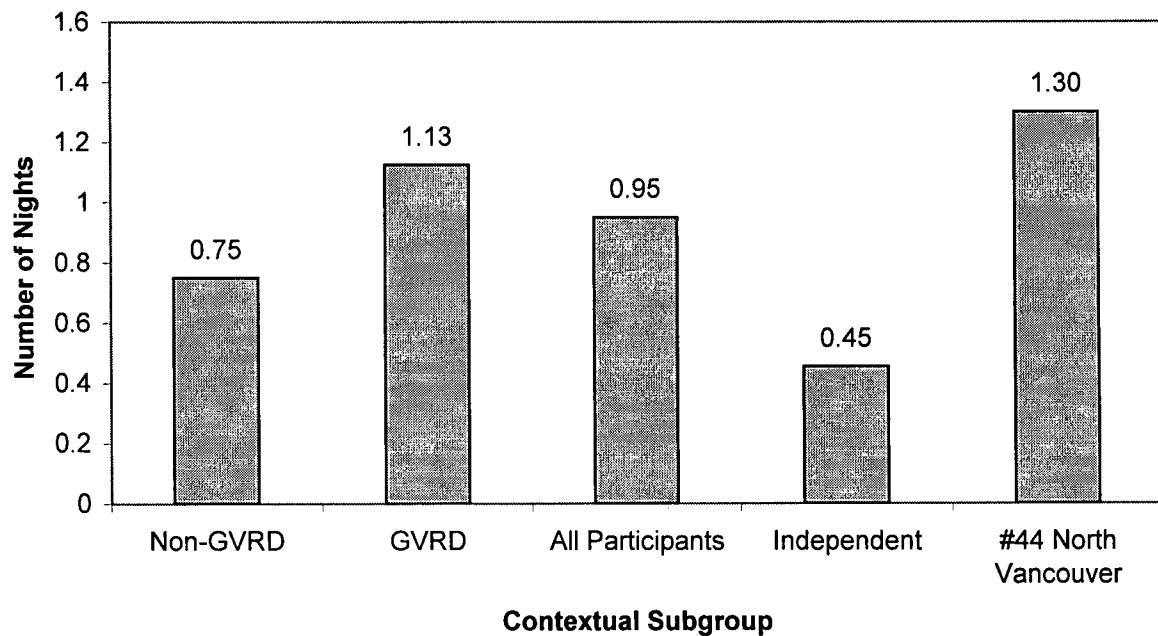


Figure 7. *Average Number of Overnight OE Nights Offered by Contextual Subgroups*

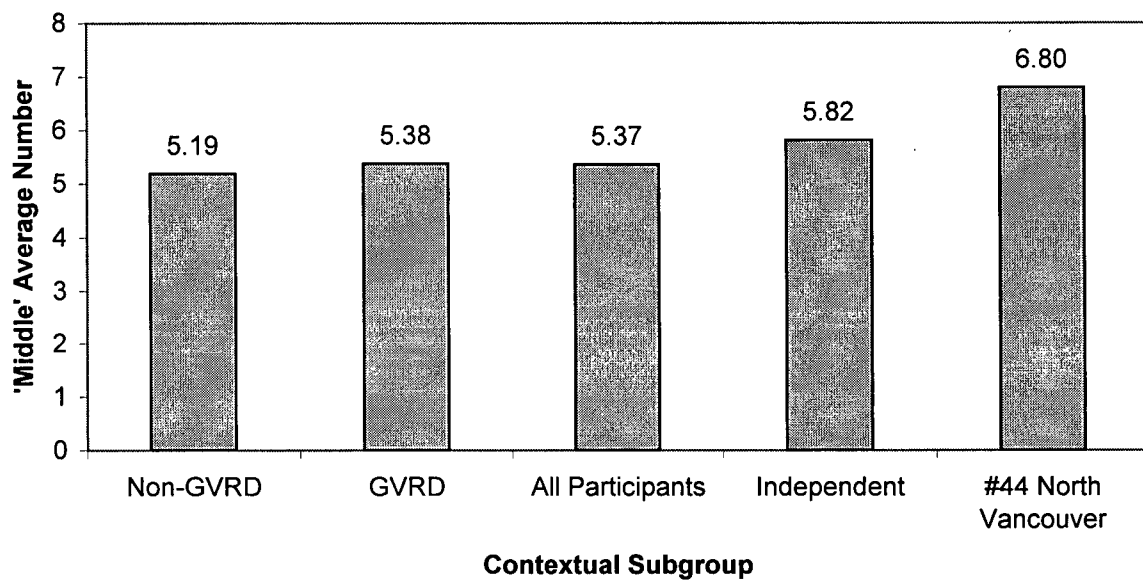


Figure 8. 'Middle' Average Number of Non-Overnight Experiences by Contextual Subgroups

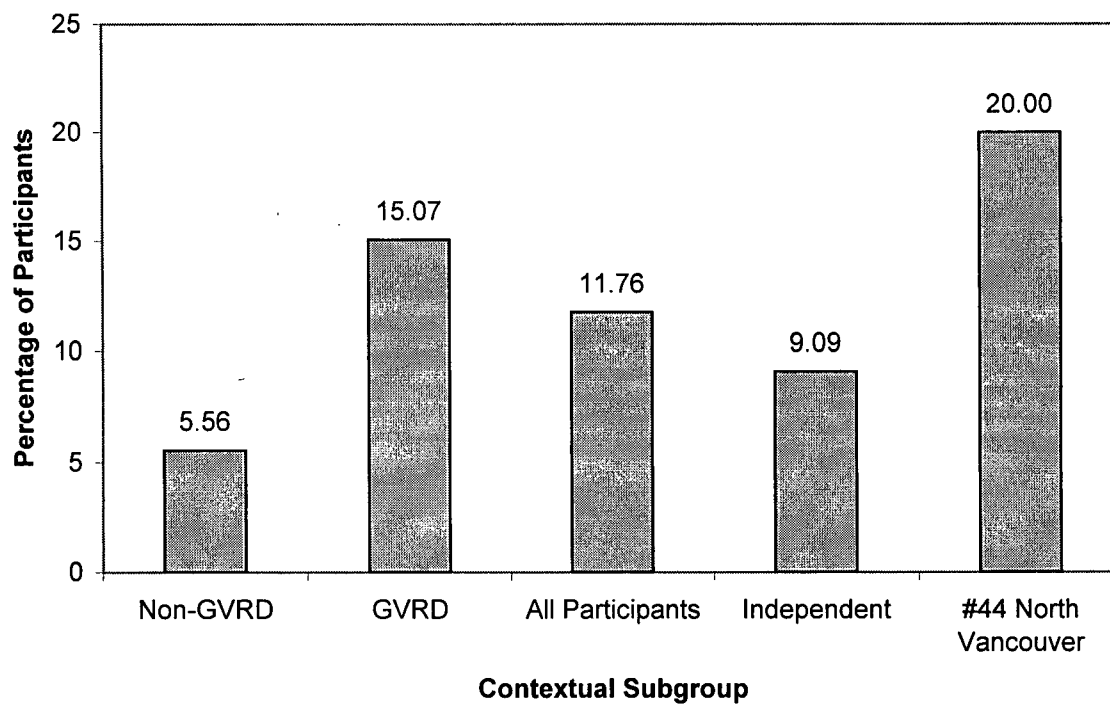


Figure 9. Percentage of Participants Offering Extra-Curricular Outdoor Education by Contextual Subgroups

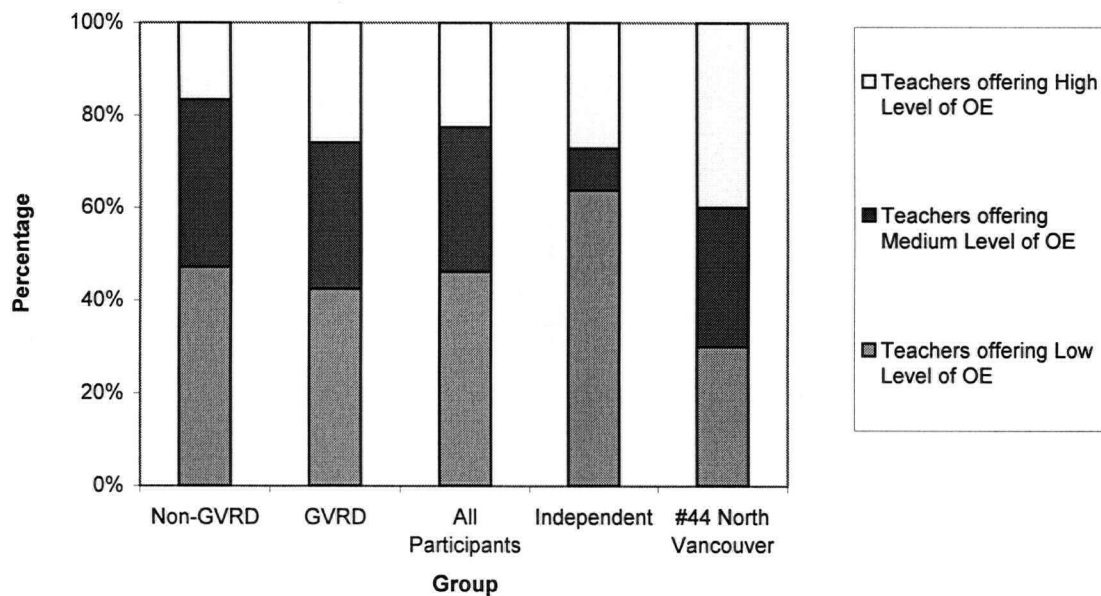


Figure 10. *Percentage of Participants Offering Different Levels of Outdoor Education by Contextual Subgroups.*

By all three measurements of Outdoor Education used for this study, GVRD teachers offer more OE than their non-metropolitan counterparts outside of the GVRD. By all three measures, the small sample of North Vancouver teachers offered on average more OE than any of the contextual subgroups. The small sample of independent school teachers offered more non-overnight experiences than the GVRD and Non-GVRD teachers, but less than the North Vancouver Teachers. The independent school participants offered the second lowest amount of extra-curricular OE and the lowest amount of overnight experiences.

4.3.7 Extent of Outdoor Education Offered by Grade Level Subgroups

A subgroup was created for each of the four grade levels of the study. Each subgroup was made up of all participants who indicated they taught some portion of their assignment in that grade. This means that a teacher who taught a grade 4/5 split, was included in both the Grade 4 Subgroup and the Grade 5 Subgroup. As many teachers taught more than one grade, the subgroups do not represent a pure grade level. The following percentages indicate what equivalent teaching assignment fell within the grade level of the subgroup: Grade 4- 74%, Grade 5- 59%, Grade 6- 63%, Grade 7- 66%.

The extent of OE offered by these grade level subgroups is shown in Figure 11, Figure 12, Figure 13 and Figure 14. This information, with more detail, is also included in Table 3.

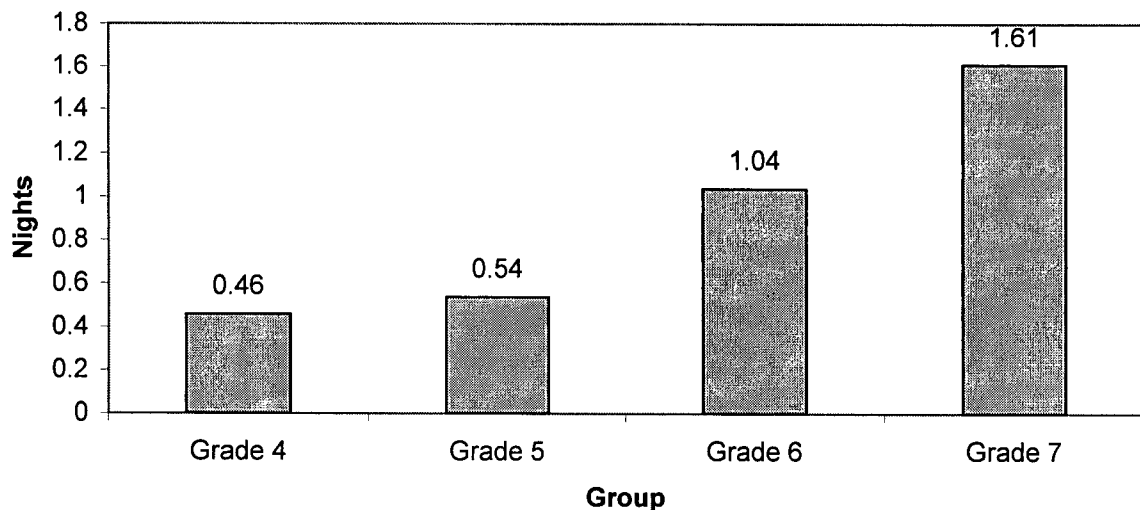


Figure 11. *Number of Overnight Outdoor Education Nights Offered by Grade*

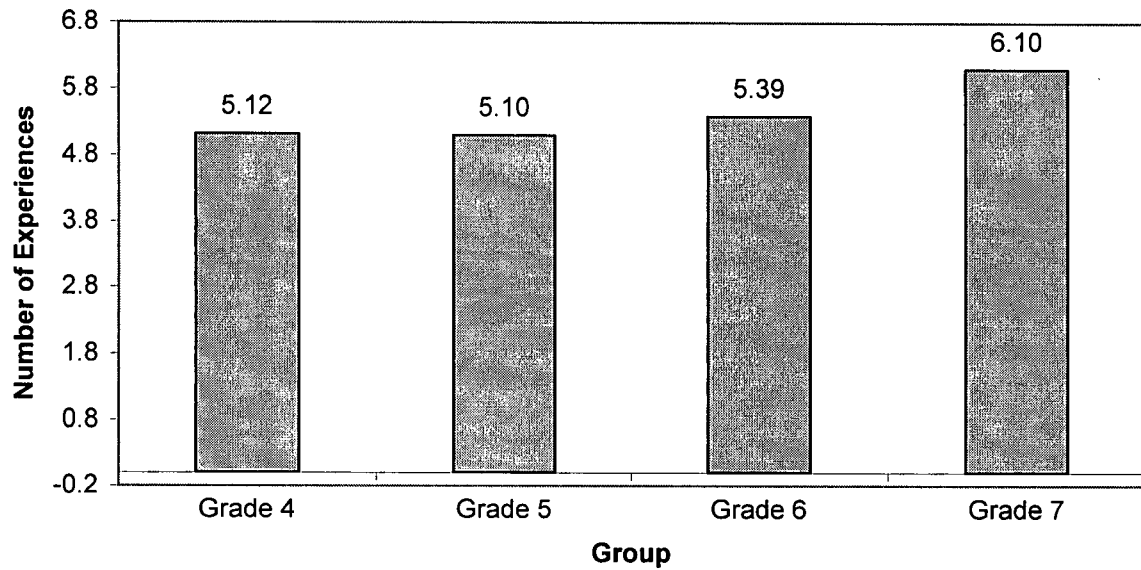


Figure 12. 'Middle' Number of Non-Overnight OE Experiences Offered by Grade

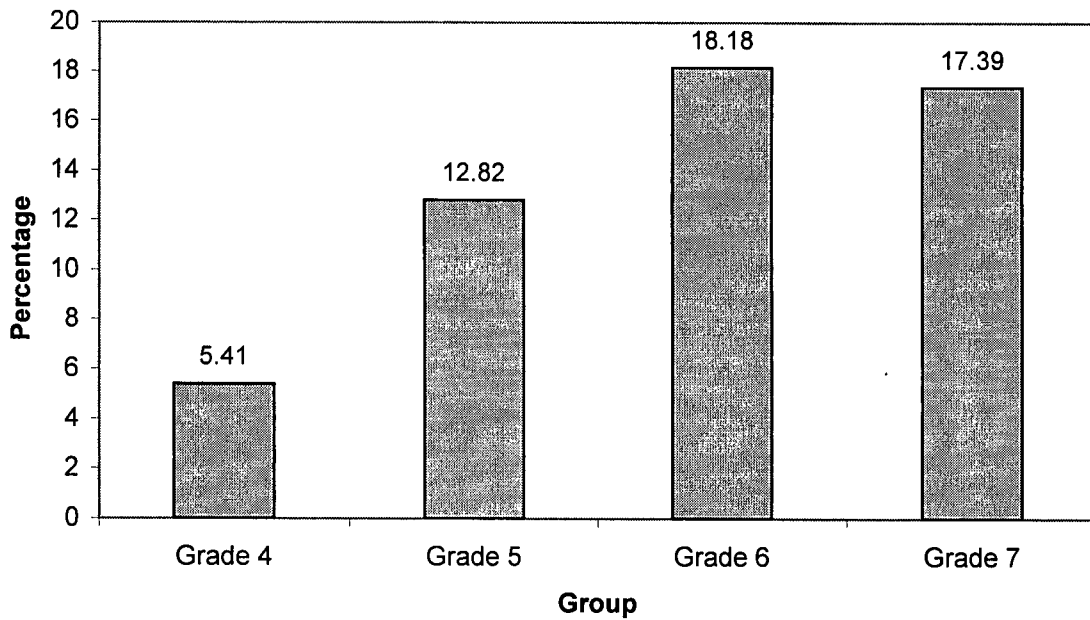


Figure 13. Percentage of Teachers Offering Extra-Curricular OE by Grade

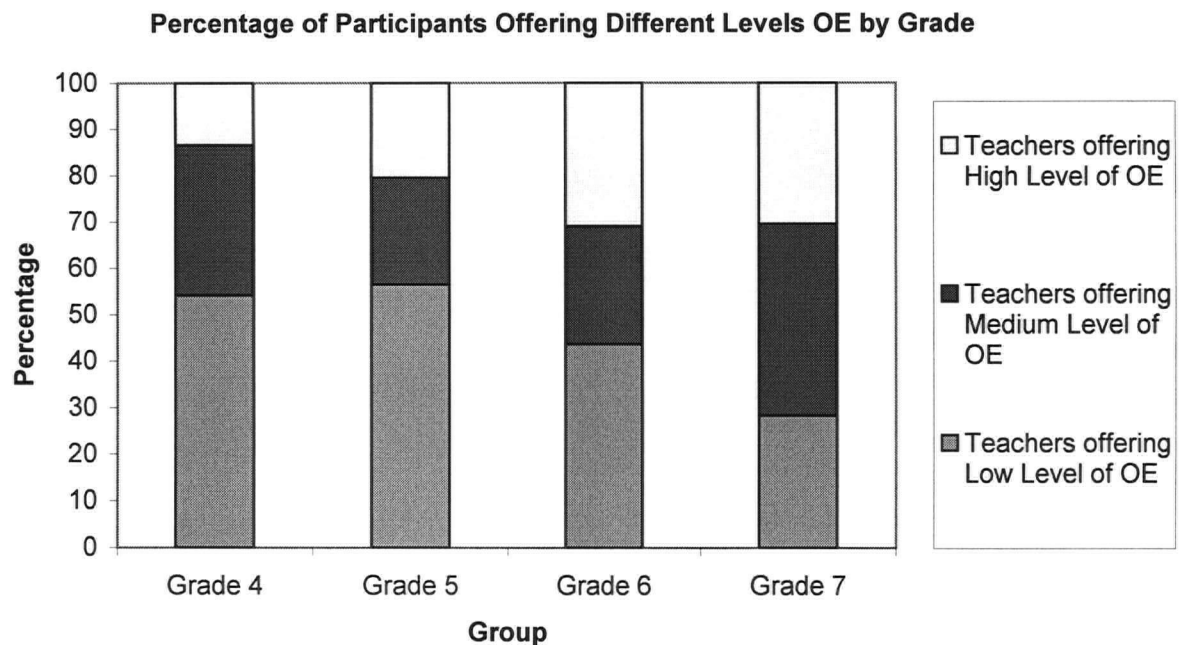


Figure 14. *Percentage of Participants Offering Different Levels OE by Grade*

In every Outdoor Education measure of this study, substantially more was offered in the more senior grades investigated⁴. This is most evident in the number of overnight experiences offered. Students were offered two and three times as many nights in grade six (1.0) and seven (1.6) respectively, as they were in grades four (0.5) and five (0.5). The ‘middle’ average of 5.1 non-overnight experiences in both grades four and five also increased by 6% into grade six (5.4) and then another 13% into grade seven (6.1). Although to a less dramatic extent, teachers offering extra-curricular also increased from 5% and 13% in grades four and five respectively, to 18% and 17% in grades six and seven respectively.⁵

⁴ It is interesting to note that a minor exception exists to this trend as Grade 4 levels are slightly higher than Grade 5 levels.

⁵ The increase in OE offering in the more senior grades plays a role in the subgroup calculations below, although steps are taken to address this issue.

Table 3. *Outdoor Education by Subgroups*

	Grade 4	Grade 5	Grade 6	Grade 7	Grade 6 and 7 Subgroup	Non-GVRD	GVRD	All Participants	Independent	#44 North Vancouver	Extra-Curricular Subgroup	Overnight Subgroup	Non-Overnight Subgroup
Number of Participants in Group	37	39	55	46	69	36	72	119	11	10	14	41	42
Percent indicating 0-5 times	62.2	66.7	67.3	54.3	60.9	61.1	65.3	64.7	72.7	40.0	42.9	51.2	0.0
Percent indicating 6-10 times	32.4	25.6	21.8	34.8	27.5	33.3	25.0	26.1	9.1	50.0	42.9	34.1	73.8
Percent indicating 11-25 times	5.4	7.7	10.9	10.9	11.6	5.6	9.7	9.2	18.2	10.0	14.3	14.6	26.2
Maximum average number of experiences per teacher	7.7	7.8	8.3	8.9	8.7	7.8	8.2	8.2	9.1	9.5	10.0	9.6	13.9
Minimum average number of experiences per teacher	2.5	2.4	2.5	3.3	2.9	2.6	2.6	2.6	2.5	4.1	4.1	3.7	7.3
Middle average number of experiences per teacher	5.1	5.1	5.4	6.1	5.8	5.2	5.4	5.4	5.8	6.8	7.1	6.6	10.6
Percent indicating 0 nights offered	75.7	71.8	61.8	50.0	56.5	72.2	59.7	65.5	81.8	40.0	57.1	0.0	52.4
Percent indicating 1 night offered	5.4	5.1	5.5	10.9	7.2	5.6	8.3	6.7	0.0	30.0	0.0	19.5	11.9
Percent indicating 2 nights offered	16.2	20.5	14.5	13.0	15.9	11.1	16.7	14.3	9.1	10.0	35.7	41.5	16.7
Percent indicating 3 nights offered	2.7	2.6	7.3	10.9	8.7	5.6	5.6	5.9	9.1	0.0	0.0	17.1	12.4
Percent indicating 4 nights offered	0.0	0.0	9.1	8.7	7.2	0.0	8.3	5.0	0.0	20.0	0.0	14.6	9.5
Percent indicating 5 nights offered	0.0	0.0	0.0	2.2	1.4	2.8	0.0	0.8	0.0	0.0	0.0	2.4	2.4
Percent indicating 6 nights offered	0.0	0.0	1.8	2.2	1.4	2.8	0.0	0.8	0.0	0.0	0.0	2.4	2.4
Percent indicating 15 nights offered	0.0	0.0	0.0	2.2	1.4	0.0	1.4	0.8	0.0	0.0	7.1	2.4	2.4
Average number of nights offered per teacher	0.5	0.5	1.0	1.6	1.3	0.8	1.1	0.9	0.5	1.3	1.8	2.8	1.5
Modal number of nights offered per teacher	0	0	0	0/1	0	0	0	0	0	0	0	2	0
Median number of nights offered per teacher	0	0	0	0.5	0	0	0	0	0	1	0	2	0
Average number of nights offered per teacher offering overnight OE	1.9	1.9	2.7	3.2	3.0	2.7	2.8	2.8	2.5	2.2	4.2	2.8	3.2
Modal number of nights offered per teacher offering overnight OE	2	2	2	2	2	2	2	2	2/3	1	2	2	2
Median number of nights offered per teacher offering overnight OE	2	2	2	3	2	2	2	2	2.5	1.5	2	2	2
Percentage of teachers offering extra-curricular OE	5.4	13	18	17	17.4	5.6	15	12	9.1	20	100	15	19
Percentage of teachers offering low level of OE	54	56	44	28	36.2	47	42	46	64	30	0	7.3	0
Percentage of teachers offering medium level of OE	32	23	25	41	33.3	36	32	31	9.1	30	29	46	45
Percentage of teachers offering high level of OE	14	21	31	30	30.4	17	26	23	27	40	71	46	55

4.3.8 Extent of Outdoor Education Offered by Data Related Subgroups

Subgroups were formed with participants who offered higher levels of OE in the three areas of extra-curricular OE, overnight OE, and non-overnight OE. Their relative amounts of other OE offered were explored.

The Extra-Curricular Subgroup was made up of the 14 teachers indicating they offered extra-curricular OE. These 14 participants also prove to offer more non-overnight and overnight OE experiences than the sample average. The average 'middle' number of non-overnight experiences offered by this subgroup was 7.1 compared to the overall average 'middle' number of 5.4. The average number of nights of overnight OE for this subgroup was 1.8 compared to an overall average of 0.95.

It was noted that this subgroup was also composed of more grade 6 and 7 teachers than the entire sample. Of this subgroup 85% taught grade 6 or 7 compared to 62% of the entire sample. To investigate the possible affects of this bias grade distribution, another subgroup was created of all participants who taught grade 6 or 7 as a part of their assignment. This subgroup was composed of an equivalence of 90% grade 6 and 7 teachers. This new subgroup offered slightly more overnight and non-overnight experiences than the sample average but less than the Extra-Curricular Subgroup. Figure 15 and Figure 16 show these comparisons.

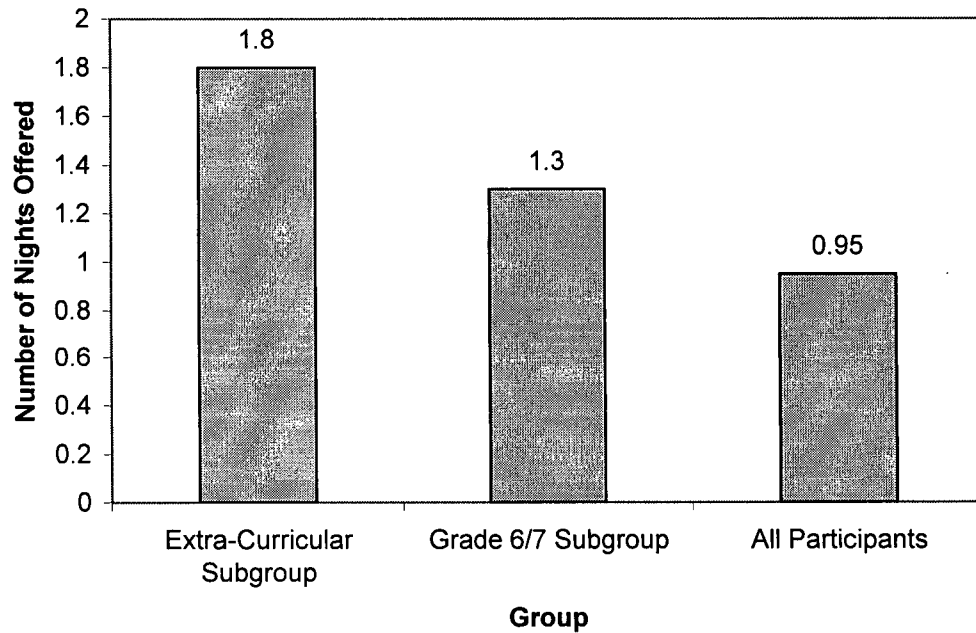


Figure 15. *Extra-Curricular Subgroup's Overnight OE Experiences Compared to the Grade 6/7 Subgroup and the Sample Average*

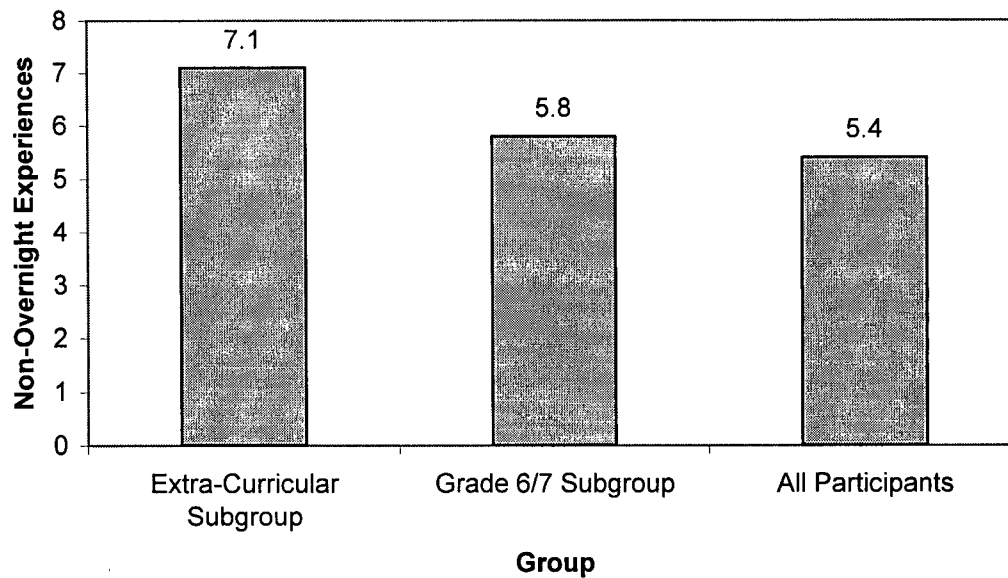


Figure 16. *Extra-Curricular Subgroup's 'Middle' Number of Non-Overnight OE Experiences Compared to the Grade 6/7 Subgroup and Sample Average*

As with the Extra-Curricular Subgroup, another subgroup was created from the 41 teachers who offered overnight OE experiences. This subgroup proved to have a higher average 'middle' number of non-overnight experiences than the entire sample: 6.6 compared to 5.4. Of this subgroup 15% also offered extra-curricular OE compared to only 12% of the entire sample.

Once again the Overnight Subgroup also had an over-representation of grade 6 and 7 teachers, 74%, compared to the entire sample that had only 62%. When compared with the Grade 6 and 7 Subgroup and the sample average, those who offered overnight OE experiences also offered more non-overnight OE experiences. And although those who offered overnight OE also offer more extra-curricular (15%) than the sample average (12%), the Grade 6 and 7 Subgroup offers even more (17%). Figure 17 and Figure 18 show these comparisons.

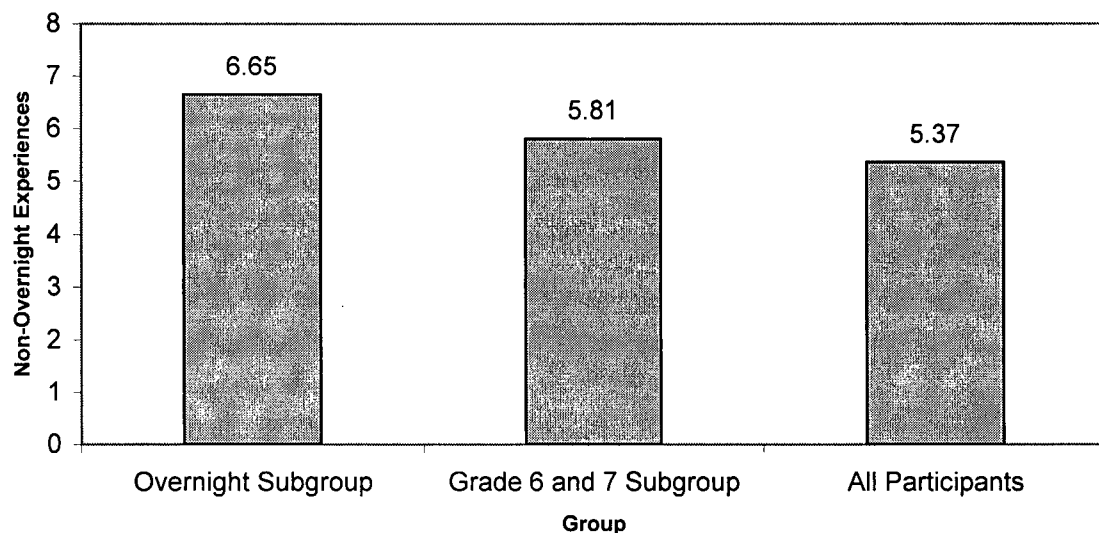


Figure 17. *Overnight Subgroup's Average 'Middle' Number of Non-Overnight OE Experiences Compared to the Grade 6/7 Subgroup and All Participants*

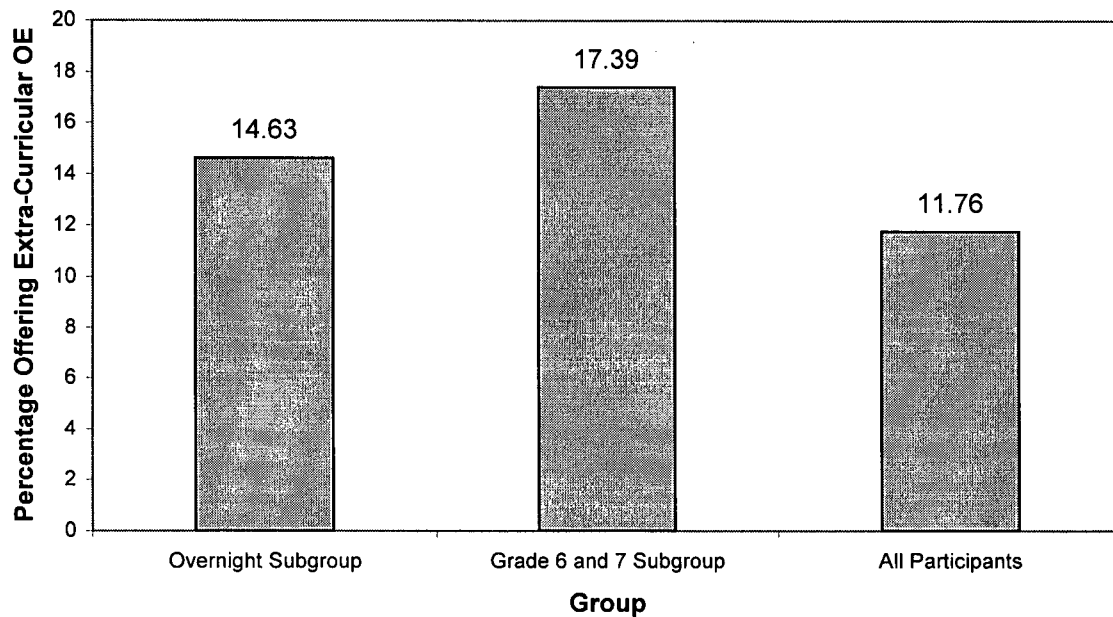


Figure 18. *Overnight Subgroup's Extra-Curricular OE Compared to the Grade 6/7 Subgroup and All Participants*

A third data-related subgroup was created and labelled the Non-Overnight Subgroup. This subgroup was made up of the 42 participants who indicated they offered either 6-10 or 11-25 OE experiences during the school year. This subgroup offered a higher average of overnight OE experiences (1.5) than the sample average (0.95), and 19% of them offered extra-curricular OE compared to the 12% sample average⁶.

Those teachers who offered extra-curricular, overnight or more non-overnight OE also tended to offer more of the other OE experiences as well. This supports the idea that OE is often carried out by a select few rather than distributed evenly among the profession. Grade 6/7 teachers also appear to be greater providers than grade 4/5 teachers.

⁶ This subgroup had approximately the same percentage of grade 6 and 7 teachers (61%) as the sample (62%).

4.4 What Are the Strongest Bridges and Barriers Grade 4-7 Teachers Perceive to Offering Outdoor Education?

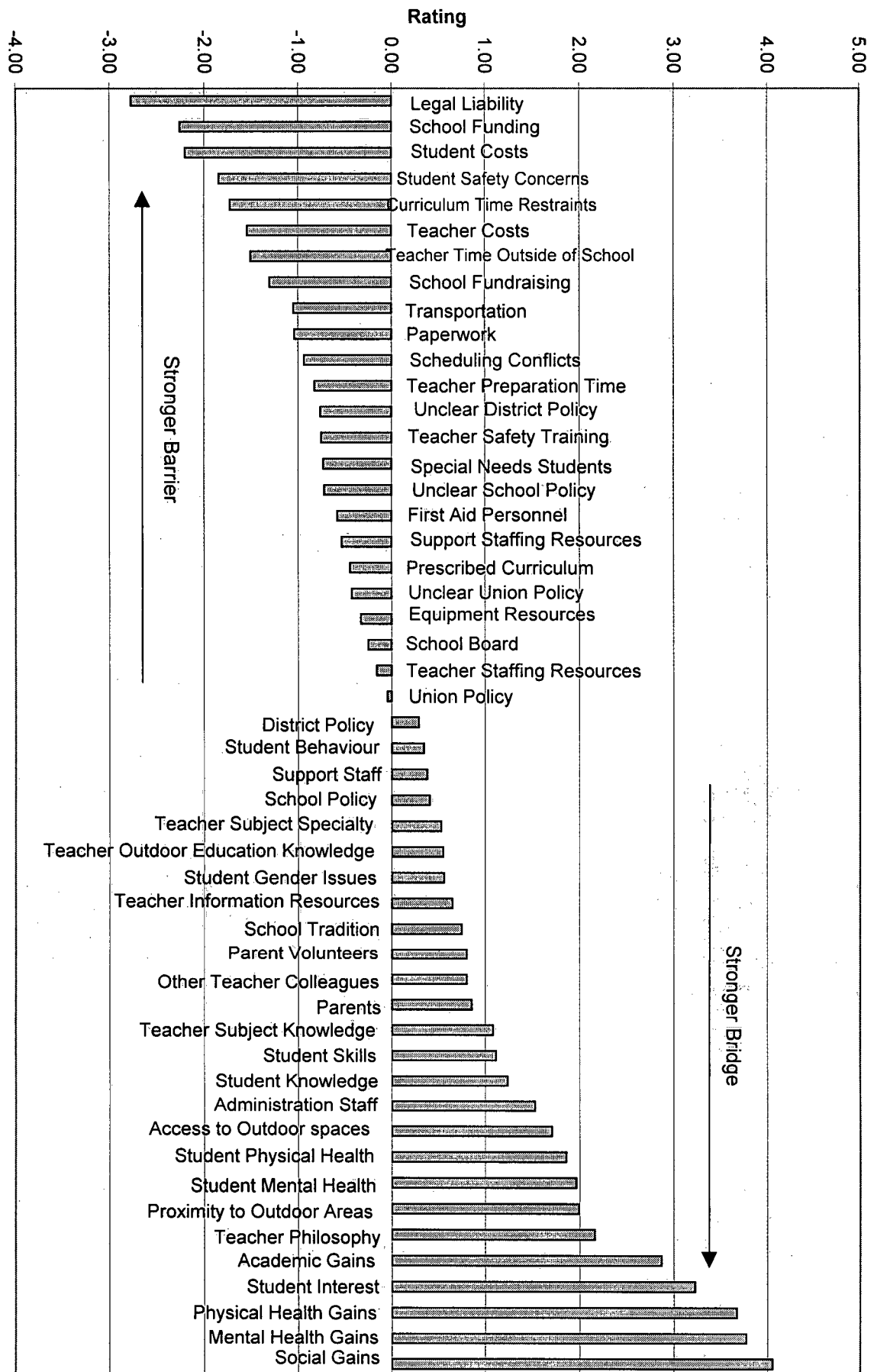
The 50 factors rated as bridges and barriers to offering Outdoor Education were investigated using Microsoft Excel© functions. All ratings for each of the 50 factors were tabulated. A mean was then calculated for each. According to the mean rating of each, the 50 factors were ordered from the strongest barrier (lowest mean rating) to the strongest bridge (highest mean rating). Figure 19 shows the mean ratings of all 50 factors ordered from the strongest barrier to the strongest bridge. Table 4 lists, in rank order, the top five bridges and barriers with their mean rating.

Table 4.

Strongest 5 Bridges and Barriers

<u>5 Strongest Bridges</u>	<u>5 Strongest Barriers</u>
1. Social Gains (+4.1)	1. Legal Liability (-2.8)
2. Mental Health Gains (+3.8)	2. School Funding (-2.3)
3. Physical Health Gains (+3.7)	3. Students Costs (-2.2)
4. Student Interest (+3.2)	4. Student Safety Concerns (-1.8)
5. Academic Gains (+2.9)	5. Curriculum Time Restraints (-1.7)

Figure 19. Ordered Mean Factor Ratings by All Participants



4.5 How Are Individual Bridge and Barrier Factors Perceived by Grade 4-7 Teachers?

Using Microsoft Excel© functions, averages and the distribution of ratings were explored for all participants. Comments made in the Strongest Two Bridges and Barriers section, and in the Optional Open-Ended Comments section, were used to better understand each factor and allow commentary on analysed results.

Figure 20 through Figure 69 were constructed to show the distribution of ratings for each factor. They also include the mean, mode, median and standard deviation (SD)¹.

By analysing the graphs, factors were categorised according to context and/or results. Below, each factor is discussed within a category. The categories are ordered to begin with the less significantly rated factors, then those rated as the stronger barriers and finally those rated as the stronger bridges.

4.5.1 Factors of Little Importance to Teachers

The seven factors in this category all had mean ratings from -0.5 to +0.5 (Figures 20, 21, 22, 23, 24, 25 and 26). They all had a mode and median of 0 and a standard deviation of less than 2.5. Relative to other factors, these factors were considered to be of little importance to teachers. The factors are listed in Table 5.

Table 5. *Factors of Little Importance to Teachers*

	Mean	SD	n
Support Staffing Resources	-0.5	2.1	111
School Board	-0.3	2.0	111
Teacher Staffing Resources	-0.2	2.3	111
Union Policy	-0.0	1.6	110
District Policy	+0.3	2.4	116
Support Staff	+0.4	2.1	118
School Policy	+0.4	2.1	113

¹ One should be aware that standard deviation is not primarily designed for use with rating scales such as this. Obviously a normal bell curve is unlikely to exist with limits of -5 and +5. Still, standard deviation does shed light on the distribution of ratings and reasonably well when the means are close to the centre of the scale.

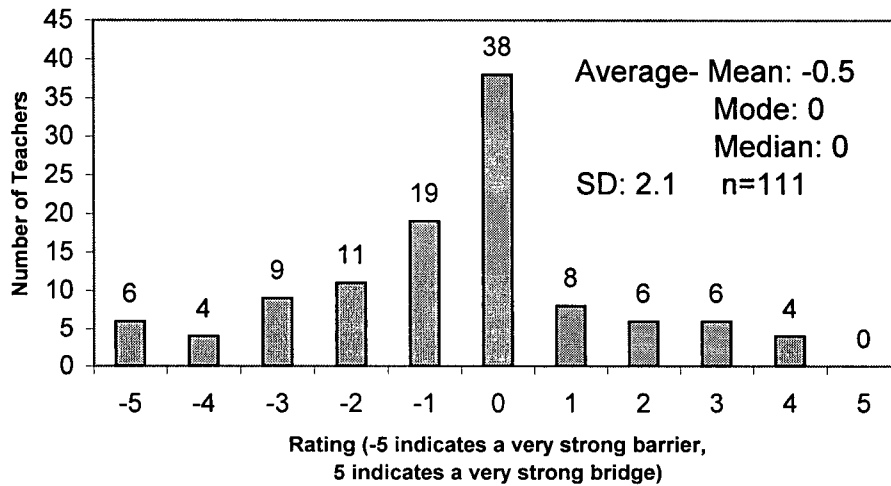


Figure 20. *Distribution of Teachers' Ratings of: Support Staffing Resources as a Bridge or Barrier in Relation to Offering Outdoor Education*

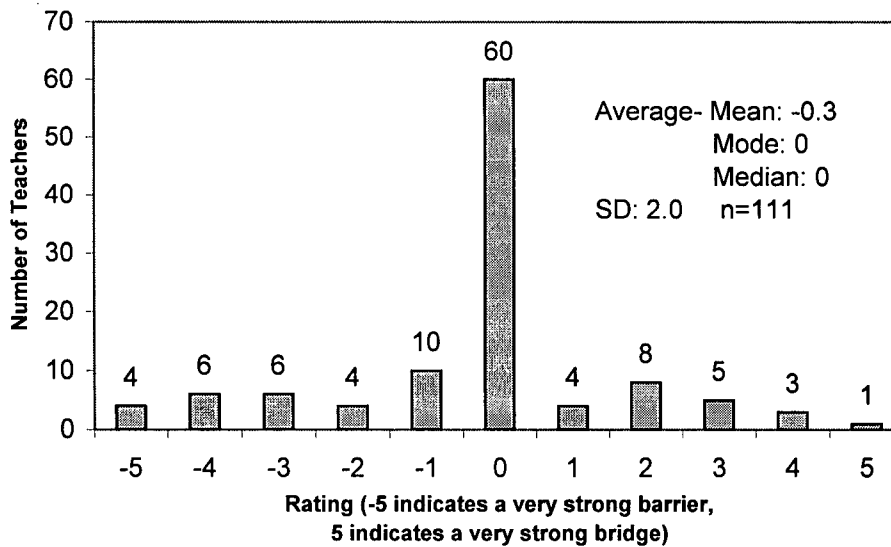


Figure 21. *Distribution of Teachers' Ratings of: School Board as a Bridge or Barrier in Relation to Offering Outdoor Education*

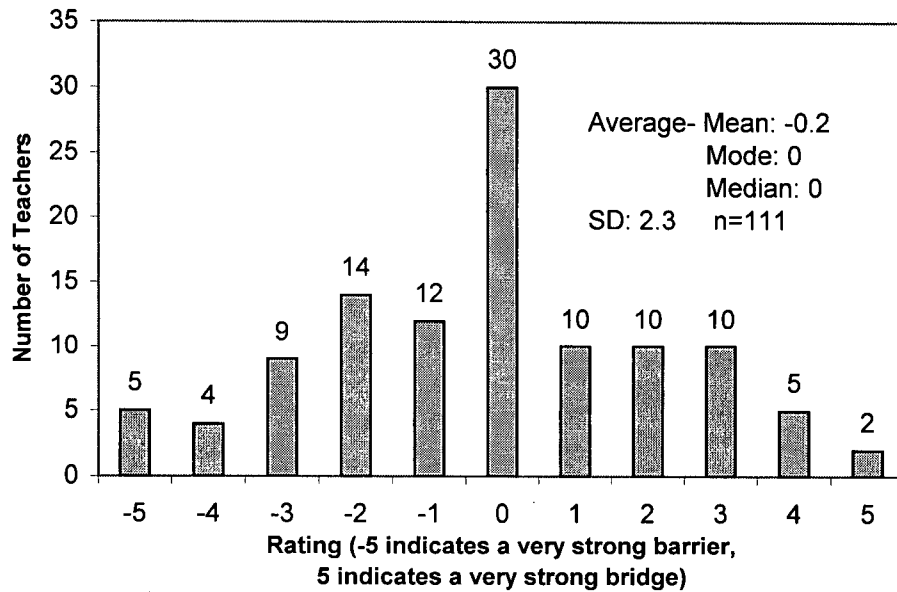


Figure 22. *Distribution of Teachers' Ratings of: Teacher Staffing Resources as a Bridge or Barrier in Relation to Offering Outdoor Education*

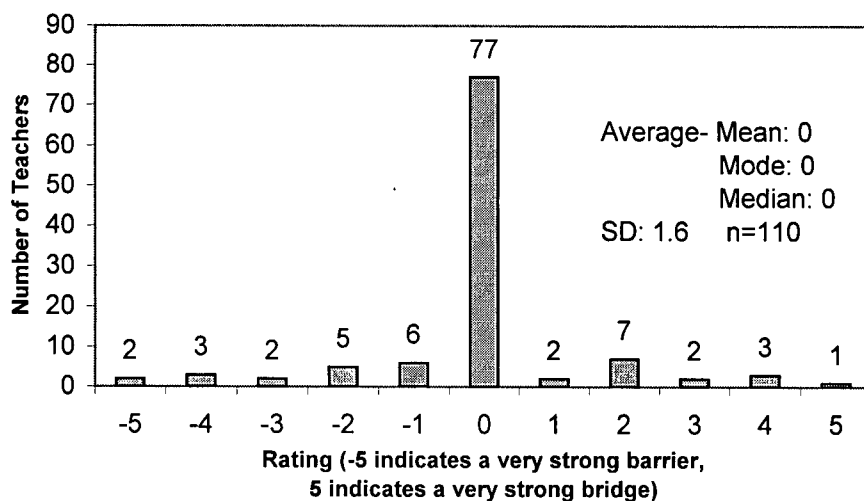


Figure 23. *Distribution of Teachers' Ratings of: Union Policy as a Bridge or Barrier in Relation to Offering Outdoor Education*

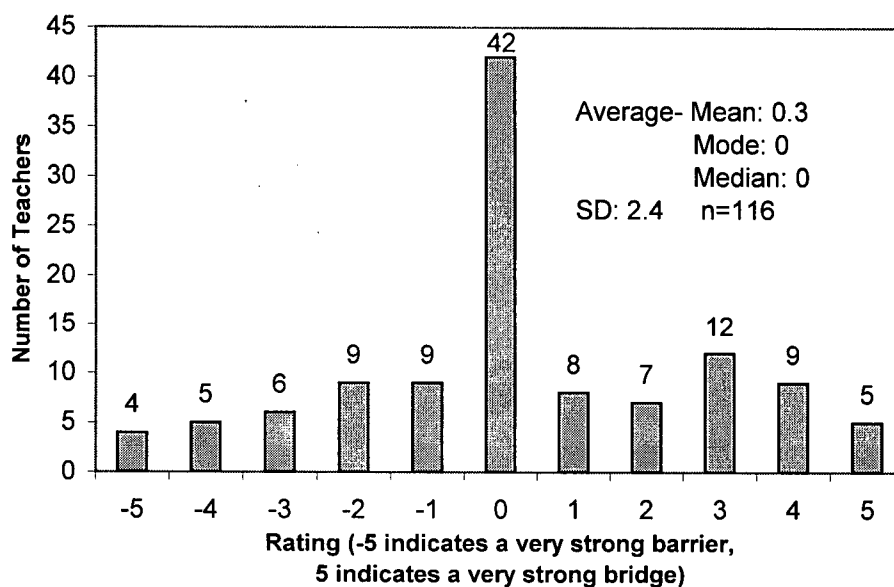


Figure 24. *Distribution of Teachers' Ratings of: District Policy as a Bridge or Barrier in Relation to Offering Outdoor Education*

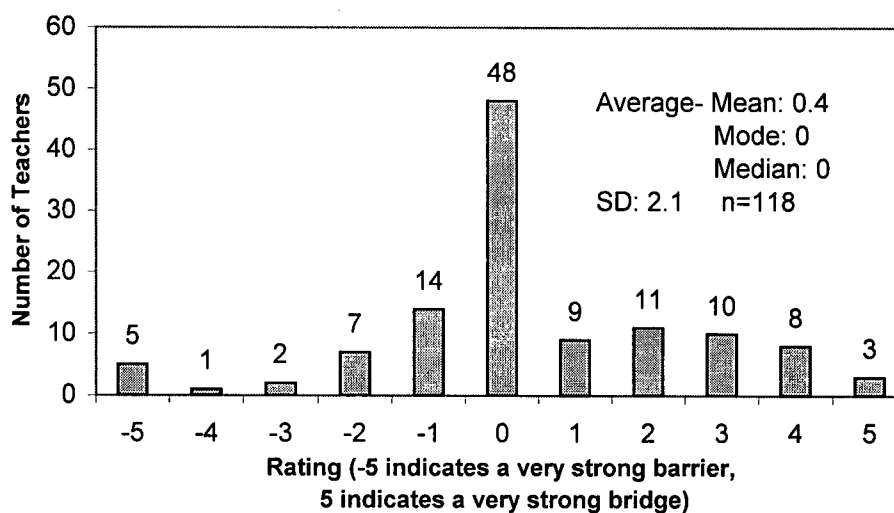


Figure 25. *Distribution of Teachers' Ratings of: Support Staff as a Bridge or Barrier in Relation to Offering Outdoor Education*

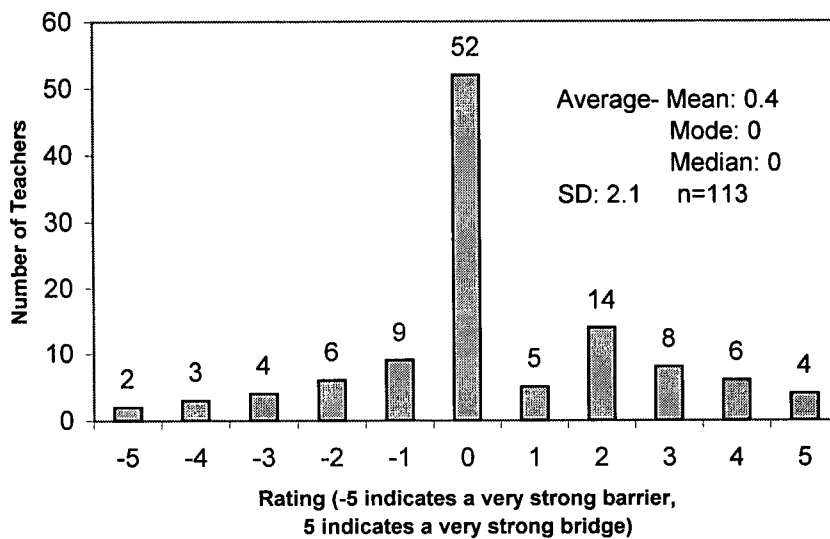


Figure 26. *Distribution of Teachers' Ratings of: School Policy as a Bridge or Barrier in Relation to Offering Outdoor Education*

Presently, these factors do not prove to be large bridges nor barriers on average, but this does not mean that they are not to some teachers, or that they will not be in the future. These seemingly minor factors may be the straw that breaks the camel's back, or the lantern in the window during a storm. Some of the comments regarding these factors remind us that they do have some role to play. Examples for each are given below:

Support Staffing Resources

"I have many students [...] I can't take out of the school unless I have support help" (Q23).

"TA's are RARELY given to support non-academic pursuits" (Q56).

School Board

"Boards are passing more policies which restrict the activities" (Q10).

"Our district and administration are supportive" (Q29).

“Our school board has begun asking for insurance waivers from students and offers no help in providing transportation. They appear to not want outdoor ed. to continue out of fears and are doing everything possible to restrict it” (Q80).

“I have been taking my students [to Outdoor Education camps] for thirty years because of the support of the district and the parents” (Q11).

Teacher Staffing Resources

“A program needs to be set up so specialists can teach the required Outdoor Ed.” (Q62).

Union Policy

“Union Policy- restrictive, unwilling to experiment” (Q28).

District Policy

“district policy not to charge students [is a barrier]” (Q36).

“District Coordinator needed to help teachers do this” (Q21).

“Our board policy is also becoming more stringent” (Q112).

“district policy not to charge students” (Q36)

School Policy

“Only the grade 7’s can fundraise for their year end camping trip” (Q124).

“School Policy- We don’t have a policy for this” (Q85).

These are not the most influential factors, but one should keep in mind that an average calculation does not highlight the individual teacher’s experience, which is emphasised by each factor having on average more than six ratings of either –5 or +5.

4.5.2 Factors Dealing with Lacking Clarity

Three factors dealt directly with the clarity of policy. All three had a somewhat negative mean rating and a standard deviation below 2. Figures 27, 28 and 29. Table 6 shows these results.

Table 6

Factors Dealing with Lacking Clarity

	Mean	SD	n
Unclear District Policy	-0.8	1.9	111
Unclear School Policy	-0.7	1.6	112
Unclear Union Policy	-0.4	1.5	109

A negative rating for something being unclear is of little surprise. Yet, there are interesting implications from these results. Varying negative ratings may parallel how teachers view the respective body's roles in OE policy making; the lack of clarity may be seen as a stronger barrier if there were greater expectations that the body create clear policy. From this one can suspect that teachers see the district as a more important policy maker regarding OE than the school, and the union as even less central. Some comments underscore unclear policies: "each district should provide schools with information about the programs available to them- also what the policies are regarding outdoor ed." (Q122), "as a school we are still unsure of protocol and procedures" (Q105), "Unclear Union Policy- inconsistent" (Q28).

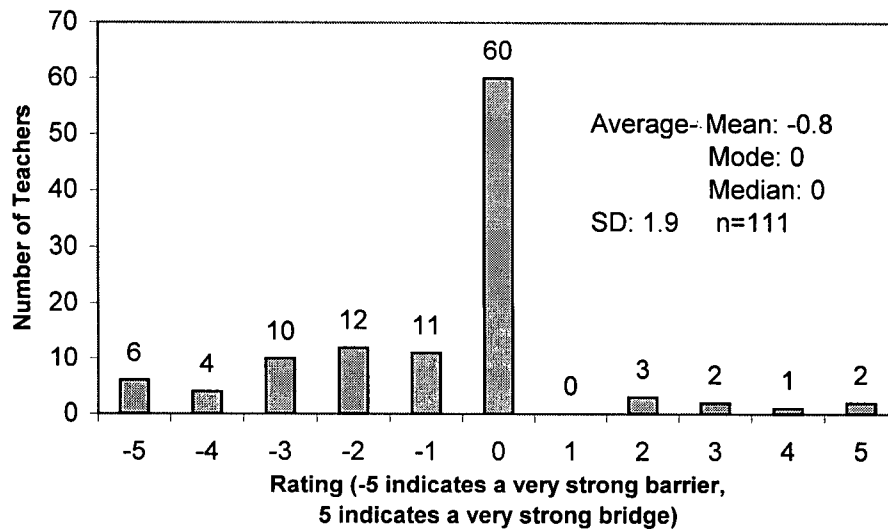


Figure 27. *Distribution of Teachers' Ratings of: Unclear District Policy as a Bridge or Barrier in Relation to Offering Outdoor Education*

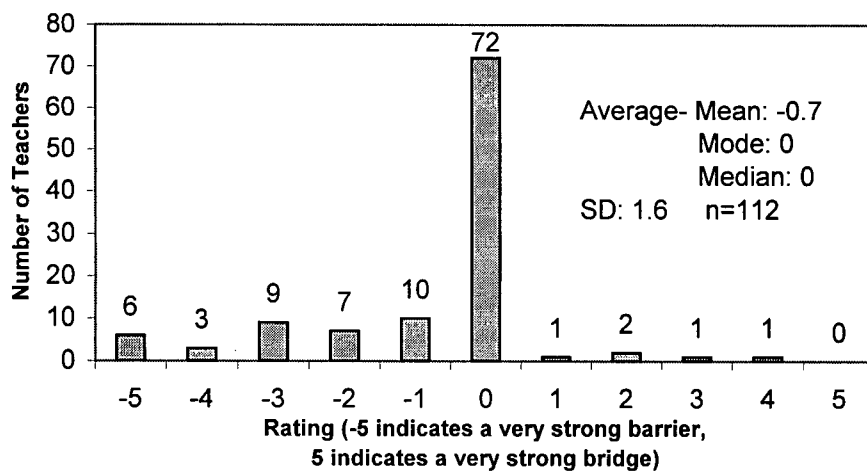


Figure 28. *Distribution of Teachers' Ratings of: Unclear School Policy as a Bridge or Barrier in Relation to Offering Outdoor Education*

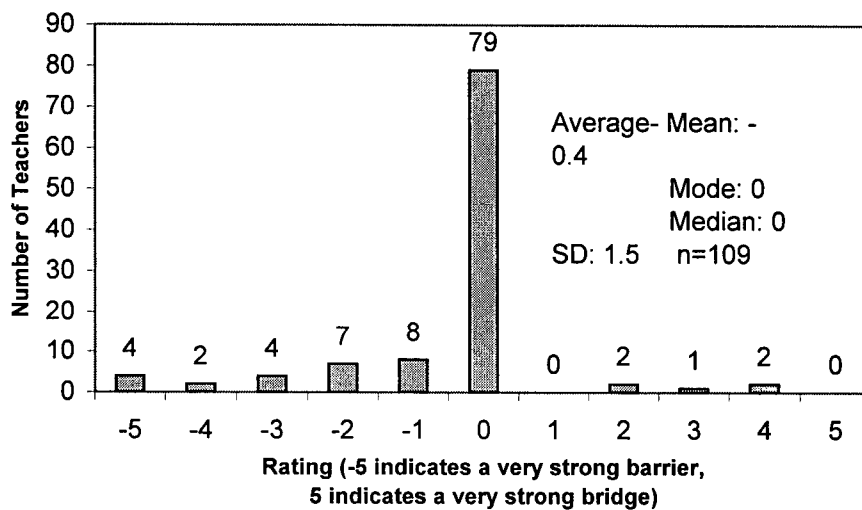


Figure 29. *Distribution of Teachers' Ratings of: Unclear Union Policy as a Bridge or Barrier in Relation to Offering Outdoor Education*

4.5.3 Factors Dealing with Teacher Knowledge, Specialty and Information Resources

The four factors in this category all had somewhat positive means, but ratings were distributed widely (Figures 30, 31, 32 and 33). Table 7 *Teacher Knowledge, Specialty and Information Resources* shows the results.

The fact that most teachers see their knowledge as a bridge to Outdoor Education is a positive sign, but the very large minority of teachers that perceive it as a barrier are of particular interest to those wishing to promote OE.

Table 7

Teacher Knowledge, Specialty and Information Resources

	Mean	SD	n
Teacher Subject Knowledge	+1.1	2.9	119
Teacher Outdoor Education Knowledge	+0.6	3.1	116
Teacher Information Resources	+0.6	2.5	114
Teacher Subject Specialty	+0.5	2.9	117

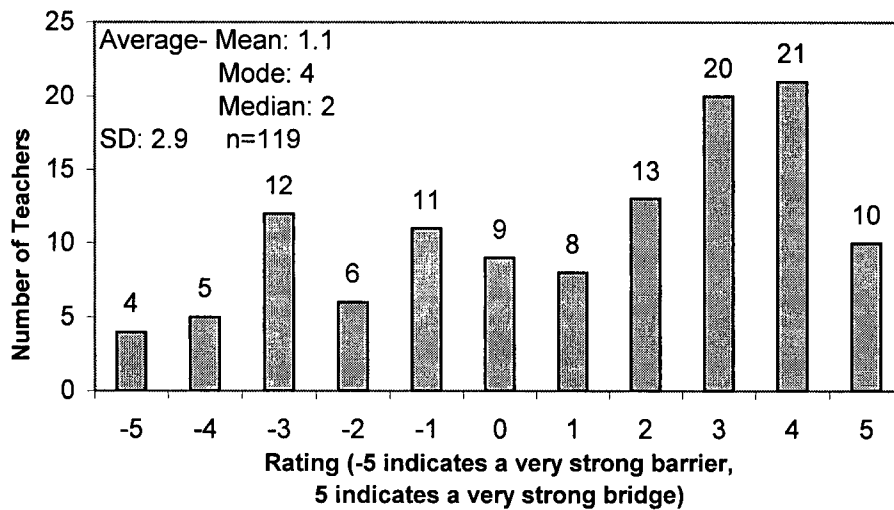


Figure 30. *Distribution of Teachers' Ratings of: Teacher Subject Knowledge as a Bridge or Barrier in Relation to Offering Outdoor Education*

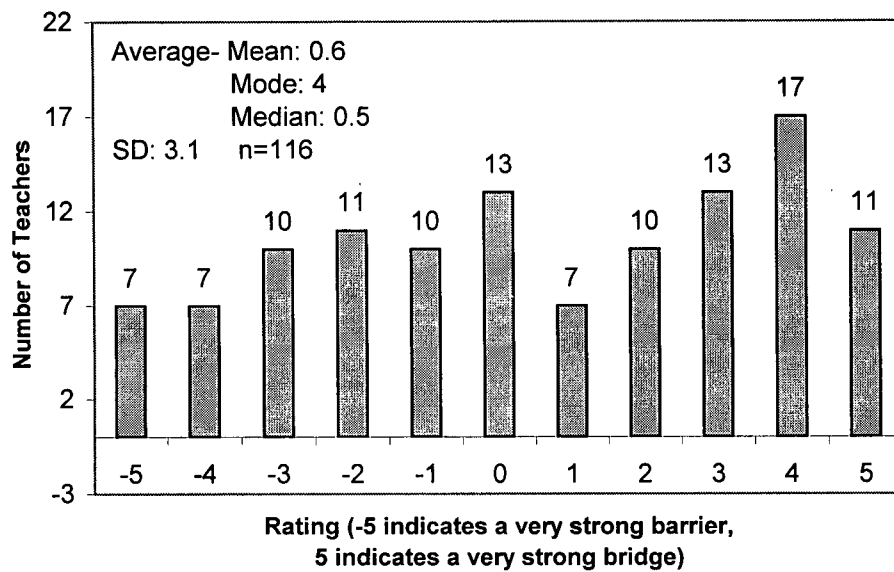


Figure 31. *Distribution of Teachers' Ratings of: Teacher Outdoor Education Knowledge as a Bridge or Barrier in Relation to Offering Outdoor Education*

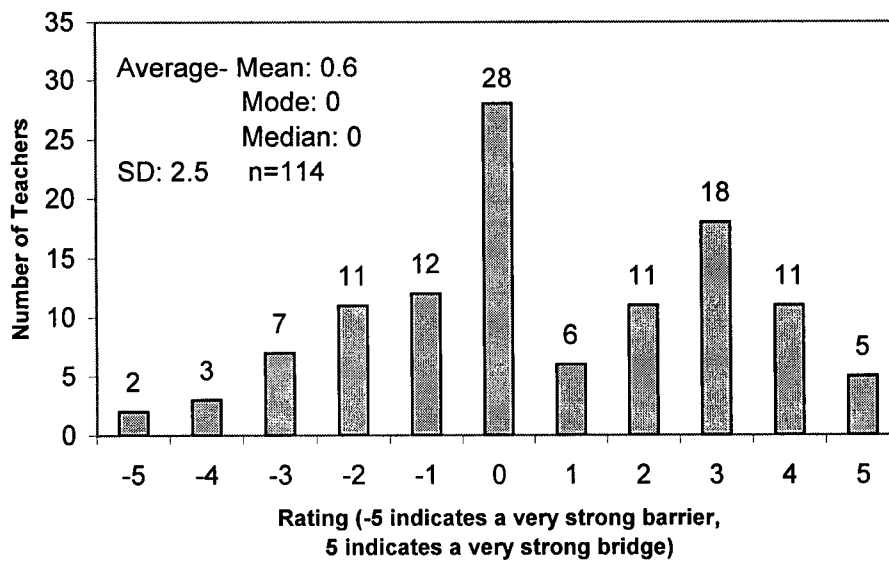


Figure 32. *Distribution of Teachers' Ratings of: Teacher Information Resources as a Bridge or Barrier in Relation to Offering Outdoor Education*

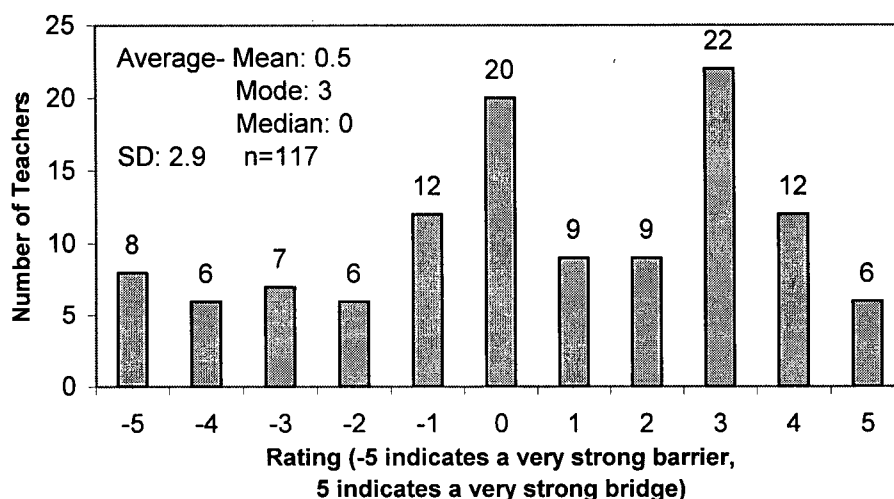


Figure 33. *Distribution of Teachers' Ratings of: Teacher Subject Specialty as a Bridge or Barrier in Relation to Offering Outdoor Education*

Teachers had diverse views of their knowledge base, which shines through in the remarks. Some listed it among their strongest bridges: “I have lots of experience in the outdoors” (Q66), “Some have been fortunate – like myself- to have benefited from North Vancouver’s now-defunct teacher training program for Outdoor School” (Q43), “I’ve been to some good pro-d events that have inspired me” (Q91), I have taken many class on overnight (s) camping trips” (Q93). Others outline an unmet need: “teachers need to experience outdoor ed. themselves before feeling comfortable teaching it” (Q25), “I would like to expand my knowledge of outdoor education” (Q42), “Grew up in ‘city’ area and uncomfortable dealing with bears and cougars!” (Q45), “My general lack of training could be a liability” (Q73), “I don’t feel confident and even with other ‘leaders’ I have felt I was put in situations that I was unqualified to be in” (Q120). Suggestions to increase teachers’ knowledge were also often mentioned: “more workshops on possible outdoor ed. Programs”

(Q18), “more courses for teachers” (Q102), “availability [of] courses to take” (Q49), “in-service provided” (Q71).

The large variation in the perception of teacher information resources also points to an area open to improvement. Many stated the need for resources: “requires resources for teachers to learn to teach” (Q35), “teachers need a ‘Dummy’s Guide’ to outdoor education” (Q35), “how to use outdoor ed. to develop specific topics [...] locations for outdoor ed. that best provide info for outdoor Ed. [...]” (Q18), “resources (books, websites) to help teachers find out what’s out there” (Q60), “resources for simple ‘intermediate’ games and crafts are needed” (Q61) “It really helps to have resources (i.e. Teacher info packages) available” (Q68), “lesson plans are needed, resources need to be made” (Q8), “more access to info about ideas, programs, benefits” (Q89). At the same time, others praise the resources: “Many available at first hand” (Q110). In this information age, there was a desire for a direction to look: “Like to learn where I can find more resources” (Q42), “As a new teacher, I would like to know where I can find resources for planning and means of teacher training” (Q46), “Knowing what is available out there” (Q84).

Teachers’ viewing their specialty as a bridge to OE is quite interesting when the data is closely observed. Certain teachers who identified themselves as Music and French as a Second Language (FSL) specialists, expectedly, did rate Teacher Subject Specialty very poorly (-5), but at the same time there were FSL, French Immersion, Librarian, P.E. and even Computer Specialists who rated Teacher Subject Specialty as a bridge. The vast majority of the sample identified themselves as grade 4-7 classroom teachers, yet 50% of the sample rated teacher Subject Specialty as a bridge. This leads one to believe that perhaps the

specialty of being an ‘intermediate teacher’ is considered a bridge to offering Outdoor Education by many.

4.5.4 Factors with Mediocre Means but Wide Distributions

Student Behaviour (Figure 34) had a mean of +0.3 and a median of 0, while its mode was +3 and its standard deviation was 3.1 (n=113). Ratings were plentiful for most scores from –5 to +5.

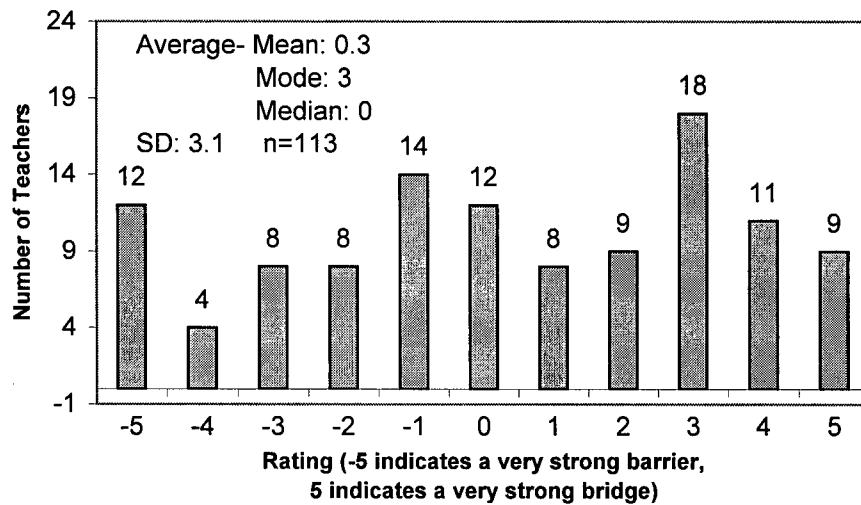


Figure 34. *Distribution of Teachers' Ratings of: Student Behaviour as a Bridge or Barrier in Relation to Offering Outdoor Education*

The disparate ratings of Student Behaviour may be caused by what is understood under of the phrase ‘Student Behaviour’ and also by teachers’ perceptions of the relationship between OE and student behaviour.

At times, OE experiences are used as rewards for positive behaviour by students, which may improve behaviour even prior to OE experiences: “I like to reward my class with

an unforgettable experience” (Q61). At the same time, student behaviour may not be positive enough to ‘earn’ the OE experience, and thus creating a barrier: “One or two students behave poorly. I’m reluctant to take them” (Q66). Some teachers also feel negative student behaviour in the classroom is a barrier to offering OE because of amplified concern about behaviour in a “less controlled environment” (Q32): “students’ behaviour increases risk of injury” (Q114). OE is also viewed as a chance for students who have behavioural struggles in the classroom, to hopefully enjoy a more positive experience in a different setting: “In my experience, behaviour problems lessen when out of the classroom setting” (Q4), “you really want the at-risk kids with you because it may be the really positive experience they will have in school” (Q80), “prevents behaviour problems” (Q48), “great for a diverse community of learners and behaviours” (Q22). It is this view that supports many OE programmes aimed at behavioural problem and at-risk students. There is also the affect of OE upon student behaviour after an OE experience, which may determine teachers’ ratings. After short OE experiences during a school day, teachers experience both rambunctious student behaviour and students that become calmed by the experience. Depending on the desired behaviour, this can be a bridge or a barrier to offering these OE experiences. After longer OE experiences, the dynamics of student behaviour is often greatly changed: “Students’ increase in self-confidence is obvious after a 2-3 day camp experience” (Q17), “Huge growth in independence, interdependence, trust, camaraderie, etc” (Q7). Although negative affects are possible, it is commonly cited that students work better with each other and the teacher after longer OE experiences: “kids learn to like each other in a less formal setting” (Q67), “a great way for kids [to] bond with each other and the teacher” (Q73), “development of trust between students and between students and teacher” (Q116). Naturally the particular aspects

of student behaviour teachers focus on and have personally experienced directly influence their ratings.

Equipment Resources (Figure 35) had a mean of -0.3 , a mode of -2 , a median of -1 , and a standard deviation of 2.9 ($n=114$). Although the mean indicates a small barrier, the data infers more. Eleven percent of participants gave a 0 rating while 89% rated it as either a bridge or barrier. Sixteen percent of participants gave a rating of either -5 or $+5$.

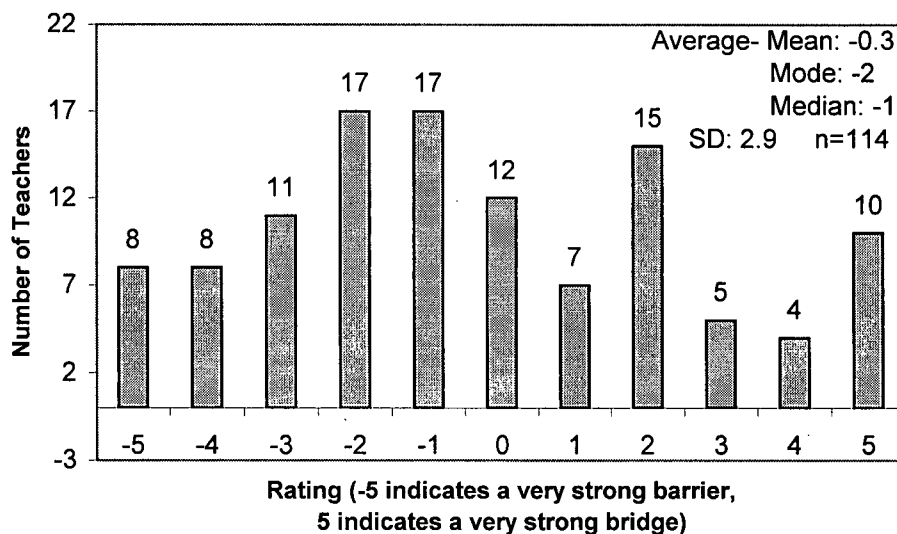


Figure 35. *Distribution of Teachers' Ratings of: Equipment Resources as a Bridge or Barrier in Relation to Offering Outdoor Education*

Naturally the equipment resources available to individual teachers varies tremendously, and whether or not teachers know the resources are available is another layer of complexity. Some schools have class sets of canoes, snowshoes, cross-country skis and camping gear. Some schools do not have a single compass. Certain districts maintain OE gear, while others leave this to private industry. Some curse the “lack of outdoor ed.

equipment – costly to rent” (Q104) and claim “we need more money for out trips and equipment” (Q86), while others are thankful for “having available canoes” (Q118). The system for access and using gear varies greatly as well. Also, some teachers believe very little equipment is needed for OE, while others see it essential. Putting things into perspective, any amount of equipment can be viewed as a bridge, while a lack of any equipment may be seen as a barrier. All of these surely influence the wide array of answers given.

Prescribed Curriculum (Figure 36) had a mean of -0.4 , a mode and median of 0 and a standard deviation of 2.5 ($n=118$). The mean indicates a small barrier but a closer look at the data shows more complexity. Thirty-one percent gave a rating of 0, while 30% gave a positive rating and 10% gave a -5 rating.

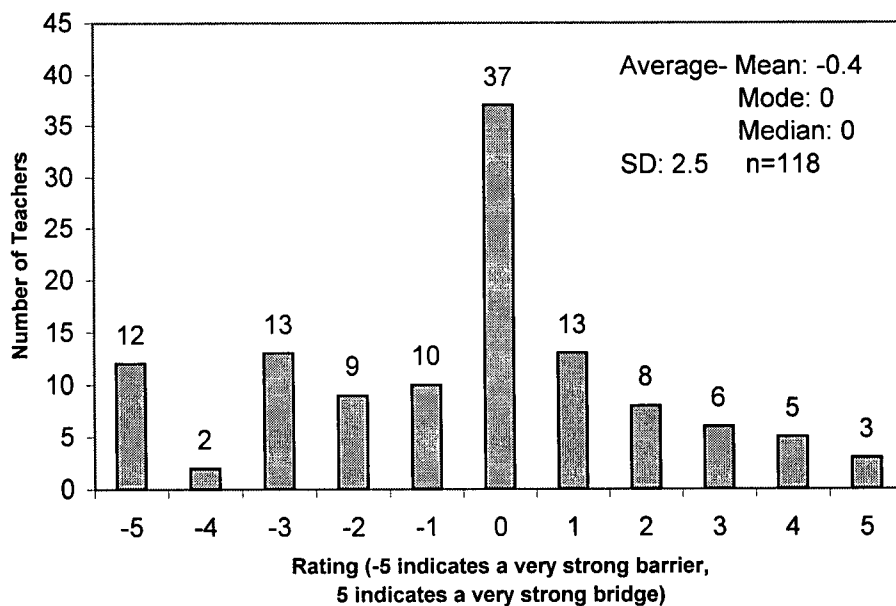


Figure 36. *Distribution of Teachers' Ratings of: Prescribed Curriculum as a Bridge or Barrier in Relation to Offering Outdoor Education*

Prescribed Curriculum was expected to denote the mandatory curriculum outlined by the provincial Ministry of Education in the Integrated Resource Packages (IRP's). Although teachers teaching specific subjects use specific IRP's, grade 4-7 classroom teachers use the same IRP's for each subject. It is the interpretation of these documents that greatly guides teachers' perception of them as bridges or barriers. Some teachers note a lack of prescribed Outdoor Education in the curriculum: "O.E. is not in the curriculum" (Q103), "Hard to apply it to Language Arts curriculum" (Q106), "If you're going out you should have clear objectives, plans, and links to curriculum- That's not always easily available" (Q12). But most comments do not directly claim it is lacking, but rather imply that OE is something other than a part of prescribed curriculum: "We barely have enough time to plan for and teach the curriculum, let alone planning for activities outside the classroom" (Q117), "Too much curriculum to cover" (Q93), "Outdoor Education needs to be in the curriculum instead of offered as extra-curricular" (Q114), "So much curriculum to try to cover" (Q99). Other comments make it clear that the IRP's can be interpreted differently: "great connection to curricular outcomes" (Q3), "Curriculum supports Outdoor Ed. and Outdoor Ed. supports curriculum" (Q115), "great way to bridge curriculum to outside world" (Q89), "Grade 4 Science and Socials curriculum are well suited to outdoor ed. experiences" (Q25), "Grade 5 curriculum" (as second strongest bridge) (Q40), "connection to Gr.5 Social Studies and Science IRP's" (second strongest bridge) (Q88), "I was surprised when I discussed the alternate environment aspect of the PE curriculum to some classroom teachers, they had no idea that it was part of the curriculum" (Q98).

It is of little surprise that teachers identifying themselves as Music or French specialists gave barrier ratings for Prescribed Curriculum. Certain subject areas less

commonly employ OE strategies to meet learning outcomes. Yet, a librarian gave a +2 rating. Interestingly, the PE IRP, which has perhaps the most explicit prescriptions of OE¹, also brought just as mixed ratings. Although some of the PE specialists gave more positive ratings, some gave negative ratings and two PE specialists gave a –5 rating. For some, independent of specialty, the prescribed curriculum appears a bridge, while others dub it insufficient.

It seems teachers' opinions of what is prescribed varies greatly, and beyond that, even the implementation of those prescriptions are questioned: "I tend to 'worry' less about what the curriculum says, if I think it's important- I figure I'll 'make it fit in,' but the feedback I get from my colleagues is that they don't always feel the same way" (Q91), "If the outdoor ed. is Ministry required or recommended, then I am more apt to take them to comply" (Q27). Although many teachers appreciate the professional judgement expected by the IRP's, others ask for more prescription: "make it part of the curriculum at a set year- i.e. Gr. 6 or 7 and again Gr. 10 or 11" (Q112), "clarifications regarding Outdoor Ed. requirements for each grade→ ministry standards" (Q48). No comments were made implying the prescribed curriculum included too much OE.

4.5.5 Factors Seen as Mild Barriers

The four factors of this category had means from –0.6 to –0.9 and show an obvious negative distribution.

¹ All of the PE IRP's contain rather explicit connections to Outdoor Education, in its alternative-environment activities (suggested activities include hiking, canoeing, camping, etc.). They also contain 'prescribed learning outcomes' such as: "It is expected that students will: participate safely in an outdoor experience" (Min. of Ed., 1995)

First Aid Personnel (Figure 37) had a mean of -0.6 , a mode of 0, a median of -1 , and a standard deviation of 2.8 ($n=115$). It was rated a barrier to offering OE by 50% of teachers, while 24% gave a rating of 0.

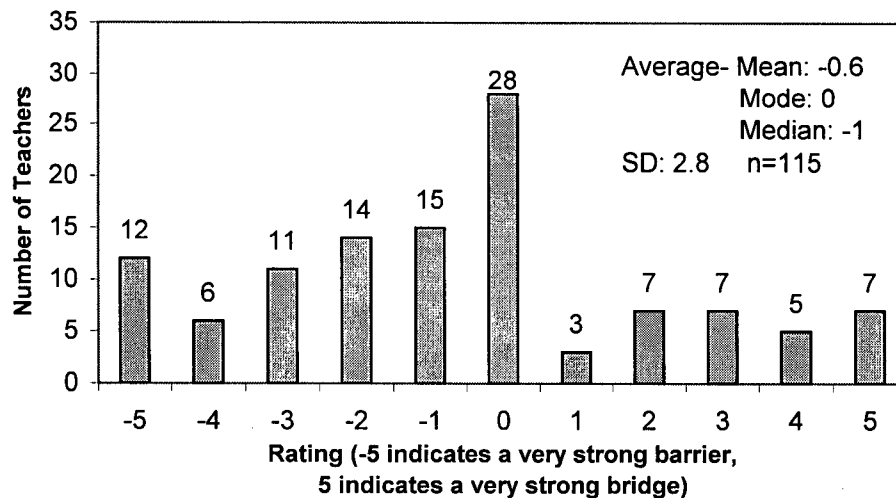


Figure 37. *Distribution of Teachers' Ratings of: First Aid Personnel as a Bridge or Barrier in Relation to Offering Outdoor Education*

The 10% that rated it a very strong barrier (-5) would presumably see first aid personnel as important and difficult to access (“essential support from school / board re cost of hiring qualified First Aid Personnel” (Q9), “I want [first aid] training to feel confident” (Q67)).

The 6% who rated it a very strong bridge ($+5$) would presumably also see first aid personnel as important but are able to access the personnel easily. The importance teachers see in first aid personnel should be understood as greater than that perhaps reflected by the -0.6 mean. Not only the teachers rating negatively are presumed to see this factor as important. Even those with mediocre ratings may still find first aid personnel important, but accessing them is

only a slight. First Aid Personnel was rated the seventeenth strongest barrier to offering Outdoor Education.

Special Needs Students (Figure 38) had a mean of -0.7 , a mode of 0, a median of -1 , and a standard deviation of 2.4 ($n=113$). It was rated a barrier to offering OE by 55% of teachers, while 25% gave a rating of 0.

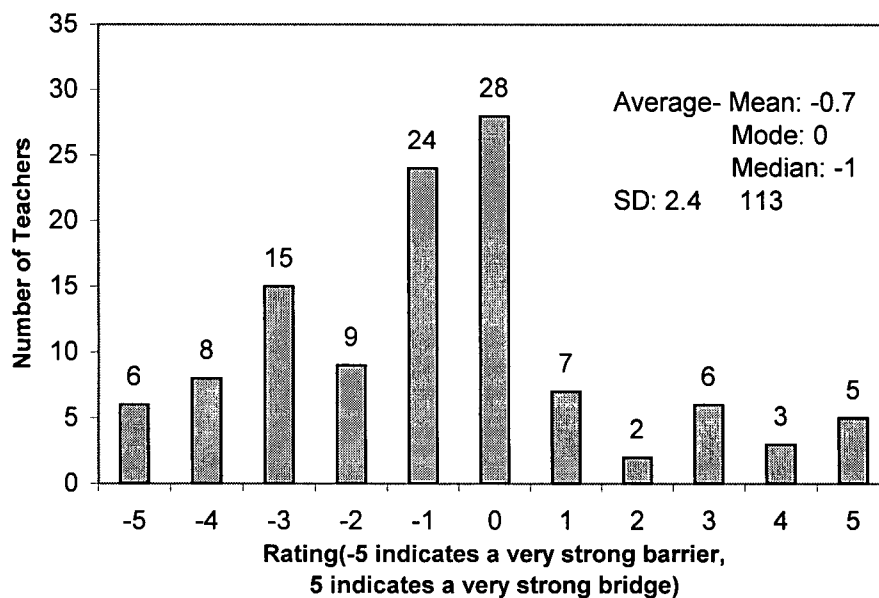


Figure 38. *Distribution of Teachers' Ratings of: Special Needs Students as a Bridge or Barrier in Relation to Offering Outdoor Education*

The ratings of this factor would naturally be strongly affected by the special needs students with whom teachers work. Autism, giftedness, F.A.S., and the entire gamut of special needs would create different perceptions of them as bridges and barriers (“I have a [student with severe special needs] so it is hard to plan activities, outside of walks within our school grounds, in which he can participate” (Q52)). The 20% of teachers who rated special

needs students as a bridge most likely believe in the gains special needs students can reap during OE experiences. Special Needs Students was rated the fifteenth strongest barrier to offering Outdoor Education.

Teacher Safety Training (Figure 39) had a mean of -0.8 , a mode of 0, a median of -1 , and a standard deviation of 2.6 ($n=116$). It was rated a barrier to offering OE by 53% of teachers, while 23% gave a rating of 0.

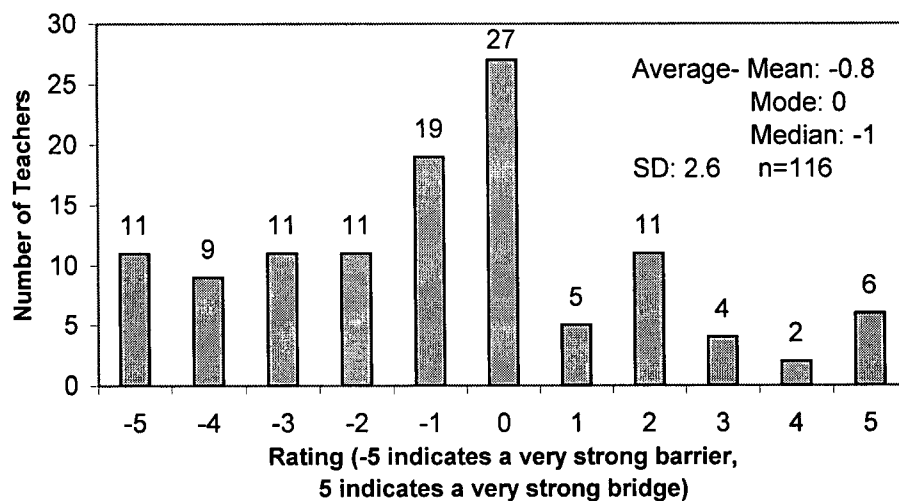


Figure 39. Distribution of Teachers' Ratings of: Teacher Safety Training as a Bridge or Barrier in Relation to Offering Outdoor Education

Similar to first aid personnel, both the stronger barrier and bridge ratings most likely indicate teachers seeing safety training as important, but some teachers can access it, while others cannot. One teacher emphasises, "Safety is an issue. Teachers need the proper training and leadership to feel comfortable taking children out of the classroom" (Q5). The more extreme negative ratings for safety training than First Aid Personnel suggest either

teacher safety training is seen as more important than first aid personnel, or that teacher safety training is harder to access. Teacher Safety Training was rated the fourteenth strongest barrier to offering Outdoor Education.

Schedule Conflicts (Figure 40) had a mean of -0.9 , a mode and median of 0, and a standard deviation of 2.1 ($n=118$). It was rated a barrier to offering OE by 48% of teachers, while 38% gave a rating of 0.

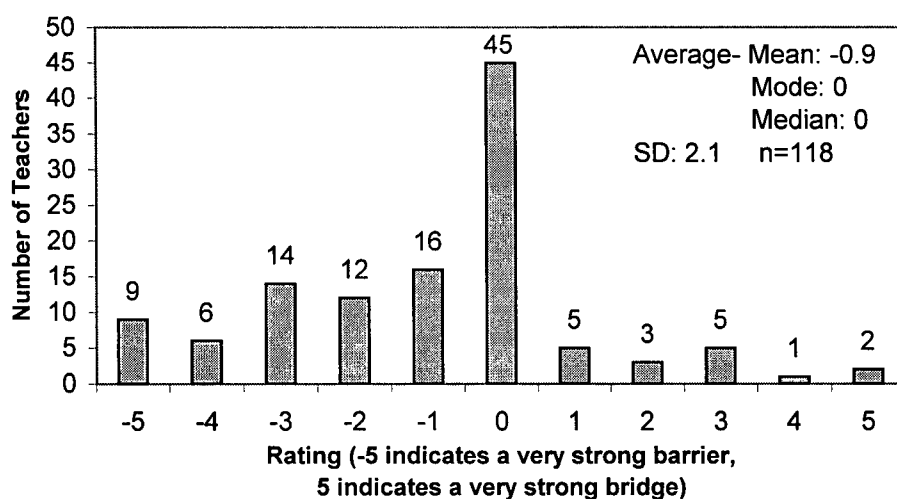


Figure 40. *Distribution of Teachers' Ratings of: Schedule Conflicts as a Bridge or Barrier in Relation to Offering Outdoor Education*

OE often demands some amount of creative scheduling: “I only have students for 1 hour time blocks” (Q18), “Our periods are 40 min. each [...] It is difficult to schedule anything longer, or further away” (Q65), “can’t accomplish outdoor ed. in scheduled 40 min. blocks” (Q72), “timetable at my school makes it difficult to go out for more than a block or two” (Q104), “too many other extra-curricular activities interfere” (Q110). The fact that only 25% of teachers gave a rating of -3 and lower, suggests that 75% of teachers are able to

arrange scheduling with limited hassles. For certain individuals, especially those in schools with cross-teacher class timetabling, this may still be a serious barrier. Schedule Conflicts was rated the eleventh strongest barrier to offering Outdoor Education.

4.5.6 Factors Dealing with Other Education Stakeholders

All factors dealing directly with other education stakeholders had positive means, including Support Staff (+0.4) that was not placed in this category. Factors in this category had positive means from +0.8 to +1.5.

Other Teacher Colleagues (Figure 41) had a mean of +0.8, a mode and median of 0, and a standard deviation of 2.2 (n=118). It was rated a bridge to offering OE by 47% of teachers, while 34% gave a rating of 0.

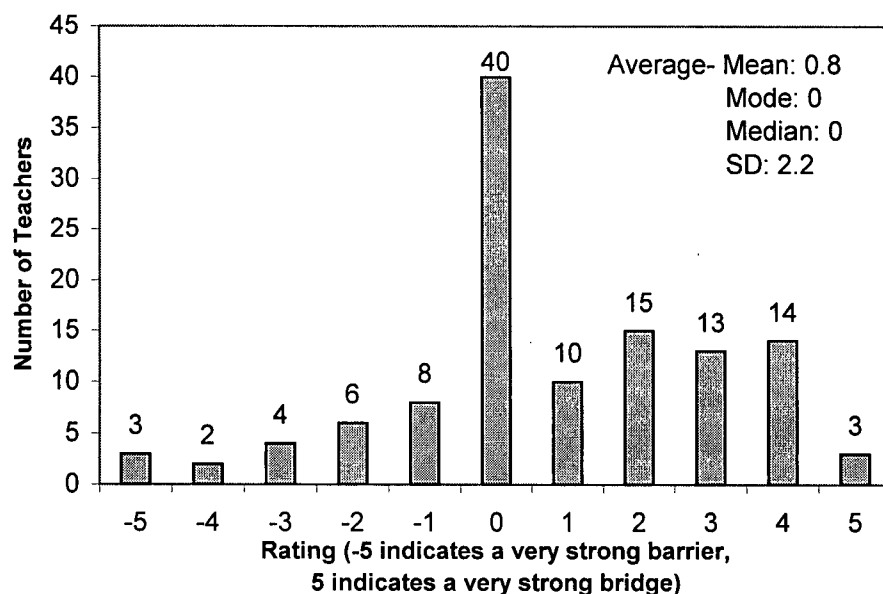


Figure 41. *Distribution of Teachers' Ratings of: Other Teacher Colleagues as a Bridge or Barrier in Relation to Offering Outdoor Education*

It is encouraging that teacher colleagues are perceived as a bridge to OE for most participants: “teachers want and are willing to participate and chaperone” (Q101). The high number of 0 ratings may reflect the solitary nature that many teachers feel in their profession: “sometimes tough to get support” (Q89), “it is hard to do alone” (Q61). Unfortunately, it comes as little surprise that some teachers found other colleagues a barrier to OE: “Without [the principal’s] support I could never convince the teaching staff to allow the students to even go for swim lessons!” (Q98), “Out. Ed. isn’t supported by other staff members who don’t feel it is important” (Q107), “it’s not often popular with other staff members” (Q55), “limited teachers see the benefits of an Outdoor Ed. program making it difficult to drum up support” (Q63). Schedule conflicts, sought-after school funds, limited equipment resources, curriculum time constraints, school fundraising and other factors all relate to teachers’ views of other colleagues as bridges or barriers. OE experiences often affect multiple colleagues within a school. How this effect is perceived and dealt with by colleagues is reflected in the results. Other Teacher Colleagues was rated the fourteenth strongest bridge to offering Outdoor Education.

Parent Volunteers (Figure 42) had a mean of +0.8, a mode of +3, a median of +1, and a standard deviation of 3.0 (n=118). It was rated a bridge to offering OE by 56% of teachers, while 14% gave a rating of 0.

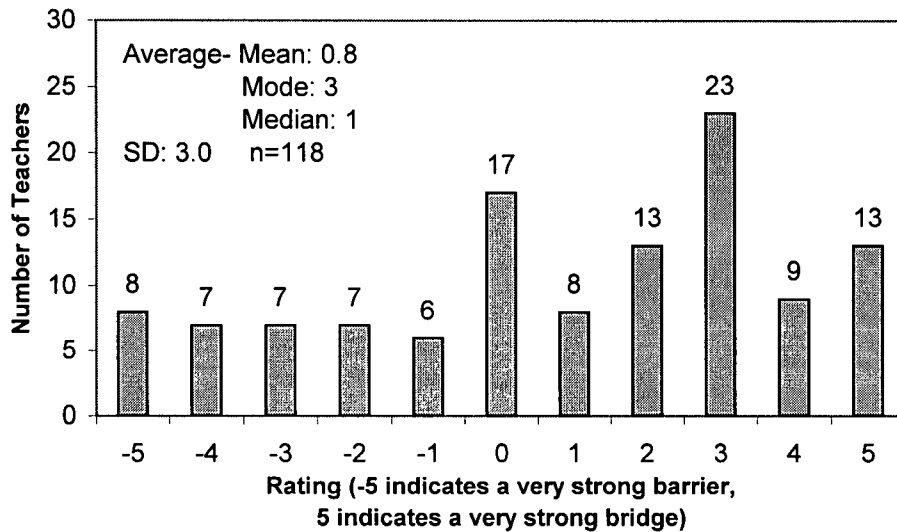


Figure 42. *Distribution of Teachers' Ratings of: Parent Volunteers as a Bridge or Barrier in Relation to Offering Outdoor Education*

The broad distribution of ratings throughout the scale will have roots in teachers' experience of both parents' effectiveness as volunteers as well as their readiness to volunteer. Volunteers, one assumes, are trying to assist students' learning, but it is hard to come across a seasoned teacher who does not have both wonderful and terrible anecdotes about past volunteers. Participant Q20 states under her strongest barriers: "Lack of parent involvement in supervision. Also not knowing if they will be responsible supervisors", while Q52 boasts: "Great group of parents- willing to volunteer and support." There is also great variation in how much teachers expect of parents when it comes to volunteering. Some teachers always expect parent volunteers, while others are pleasantly surprised when it happens: "Parent volunteers!!! Couldn't do it without them!!" (Q61), "most parents work outside the home. Those that don't are often not subscribing to volunteerism as a routine ethic" (Q88), "It's hard to get volunteers" (Q98), "Many of the parents are either working, going to school

(ESL) or feel very uncomfortable about the language barrier” (Q124), “Parents in this area have a language barrier therefore do not feel confident taking on leadership roles” (Q125). There is little doubt that assistance is a powerful bridge, and the results show that parent volunteers often provide some amount of this.

Parents (Figure 43) had a mean of +0.9, a mode and median of 0, and a standard deviation of 2.7 (n=119). It was rated a bridge to offering OE by 50% of teachers, while 29% gave a rating of 0.

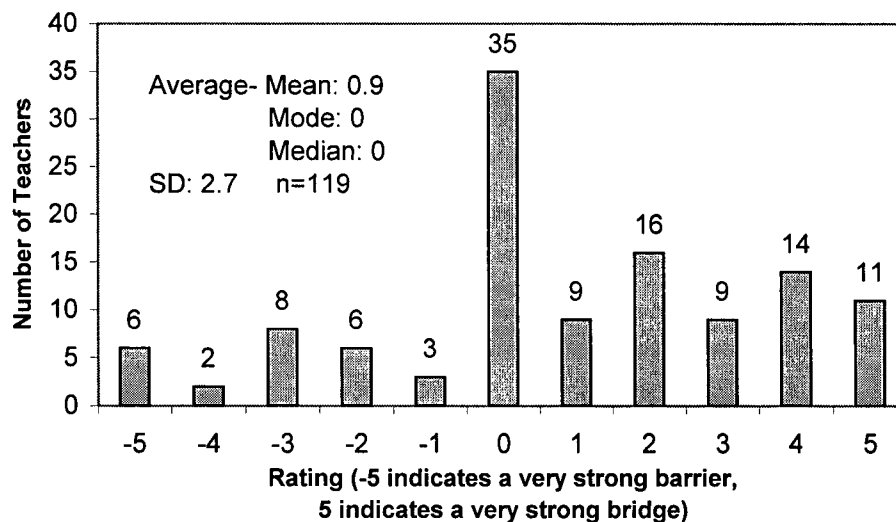


Figure 43. *Distribution of Teachers' Ratings of: Parents as a Bridge or Barrier in Relation to Offering Outdoor Education*

Volunteerism is only one way parents affect OE. Parents also have views on curriculum content, teaching methodologies, off-site learning, resource expenditures and much more that surfaces in participant comments. Multiple participants indicated parents as a very strong barrier: “you always run into parent problems!” (Q93), “parents are reluctant to

send their children out; both their own discomfort plus their children's fears of overnight" (Q82), "the parent concern was so high (by only two individuals) it almost shut us down" (Q105), "Parents / public not 'getting' that field work is an educational opportunity not a frill" (Q78). Participants also added two of their own factors that relate to parents. One was rated a bridge (+4): "Teacher support with parents" (Q40). The other was rated a barrier (-5): "Parental cultural issues" (Q103). The issue of cultural difference stood out as a barrier for multiple teachers: "Culturally outdoor education is not what [new immigrant parents] value" (Q77), "most parents opposed to O.E. (cultural issue)" (Q103), "Some cultures are very cautious or not willing to send their children to camp / skiing" (Q118), "I've found that some parents don't want their students to travel [...] these parents are always immigrants" (Q121). Optimistically, much praise was also bestowed upon the parents: "we have great support from our parents" (Q51), "Great parents" (Q85), "[parents] appreciate the value of outdoor education" (Q29), "We would likely have a lot of parent support and help" (Q45), "majority of parents see benefit of programs" (Q84), "parents usually support" (Q22). As teachers greatly influence the lives of children, it is rather sensible that teachers be attentive to parents' thoughts and actions. The results show that the majority of teachers see being attentive to parents promotes OE. Parents was rated the fifteenth strongest bridge to offering Outdoor Education.

Administration Staff (Figure 44) had a mean of +1.5, a mode of 0, a median of +1, and a standard deviation of 2.2 (n=119). It was rated a bridge to offering OE by 54% of teachers, while 37% gave a rating of 0.

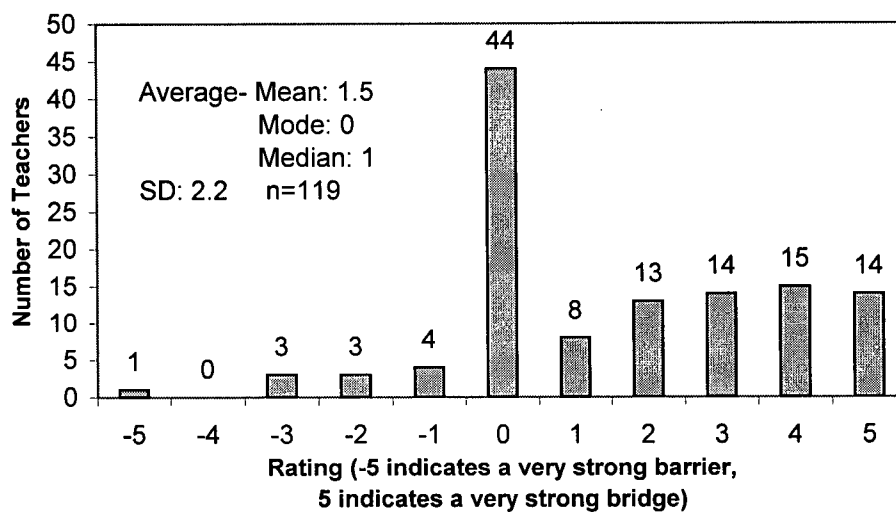


Figure 44. *Distribution of Teachers' Ratings of: Administration Staff as a Bridge or Barrier in Relation to Offering Outdoor Education*

A mere 9% of teachers rated Administration Staff as a barrier and most of those only as a mild barrier. This is very positive, especially when administrative staff is often perceived as pivotal in relation to many of the strongest barrier factors: school funding, legal liability, paperwork and others. The majority of teachers feel administrators carry out their duties in a way that promotes OE: “supportive administration helps to ensure a successful week” (Q31), “an administrator who strongly supports outdoor education [...] administration also has a good background in outdoor ed.” (Q42), “my administration [...] makes it very easy” (Q58), “Principal believes in program and its benefits” (Q84), “I have an incredible principal that is trying to help me organise outdoor events” (Q98), “they’ve been supportive and encourage this type of learning, providing resources and guidance necessary for this to happen” (Q105), “Our principal supports everything that’s positive for the students” (Q121), “our administrator would support any benefit or experience for students” (Q126). Not all

comments were positive: “Just plain not valued from top down” (Q103), “Assistant Superintendent- Fear of anything to do with the outdoors” (50). It is very possible that administrators perceive the positive side of OE much the same as teachers do, and they are fulfilling their administrative roles well through supporting teachers’ initiatives. Many OE experiences also benefit greatly from administrative assistance with much of the ‘behind the scenes’ organisation, and administrators’ permission is always mandatory for leaving school grounds. Administration staff prove to be the strongest bridge for teachers among the education stakeholders directly studied in this research. Administration Staff was rated the eleventh strongest bridge to offering Outdoor Education.

4.5.7 Factors Seen as Mild Bridges

The factors in this category had means of +0.6 and +0.7 and show an obvious positive distribution.

School Tradition (Figure 45) had a mean of +0.7, a mode and median of 0, and a standard deviation of 2.4 (n=119). It was rated a bridge to offering OE by 45% of teachers, while 34% gave a rating of 0.

School traditions often support OE: “students look forward to going from Grade 1 until they finally go in Grade 7” (Q31). When rating this factor, teachers more than likely thought of traditions in their schools that involve OE and then gave a rating. If no OE tradition came to mind, then participants may have given a 0 rating. The lack of an OE tradition may also mean a barrier in that interested parties need to adjust to the new teaching and certain issues need to be organised. Minor barriers also present themselves when another

class traditionally uses particular OE experiences (“The grade 4’s get to go to the Big House” (Q24).) and teachers do not wish to over-satiate students with particular OE experiences. Overall, school traditions tend to be a bridge to OE for teachers.

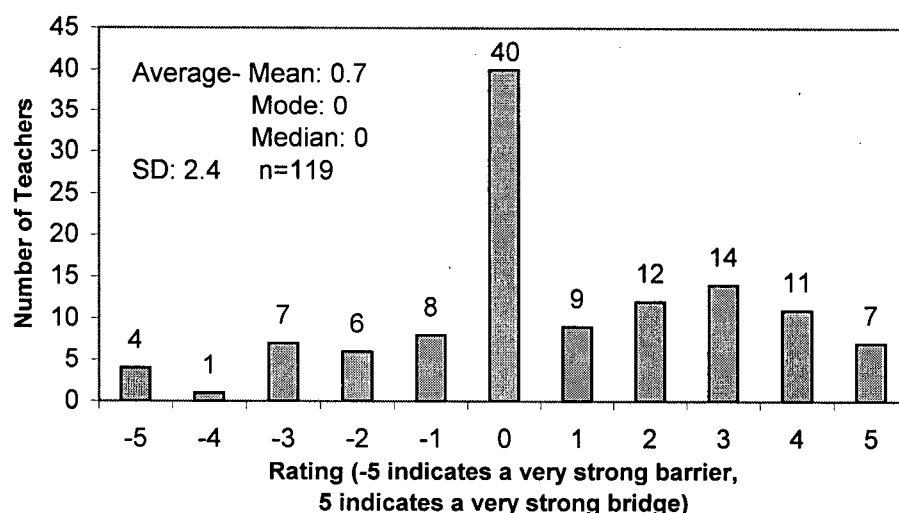


Figure 45. *Distribution of Teachers' Ratings of: School Tradition as a Bridge or Barrier in Relation to Offering Outdoor Education*

Student Gender Issues (Figure 46) had a mean of +0.6, a mode and median of 0, and a standard deviation of 1.8 (n=114). It was rated a bridge to offering OE by 27% of teachers, while 61% gave a rating of 0.

Although the majority of teachers gave a rating of 0, a good number recognised Student Gender Issues as a bridge to offering OE. This most likely parallels the strong bridge recognised in the factor of Social Gains. The teaching environment of OE offers many opportunities to promote positive gender relations and understanding: “I have found that outdoor pursuits really bring a group of students together, regardless of gender and ability” (Q13). The rigid structure of much classroom teaching stifles many social

interactions among students and can limit healthy social relations: “getting to know each other in a different environment” (Q46). On the barrier side, both male and female adults need to be involved in many OE experiences for safety reasons, which adds another level of organisational difficulty. Concerns about overnight experiences with students of both genders also pose concerns for some parents and teachers: “13 year old students are capable of doing many things (aggressive to sexual behaviour)” (122). In the end, student gender issues appear to be either a non-issue or a mild bridge to Outdoor Education.

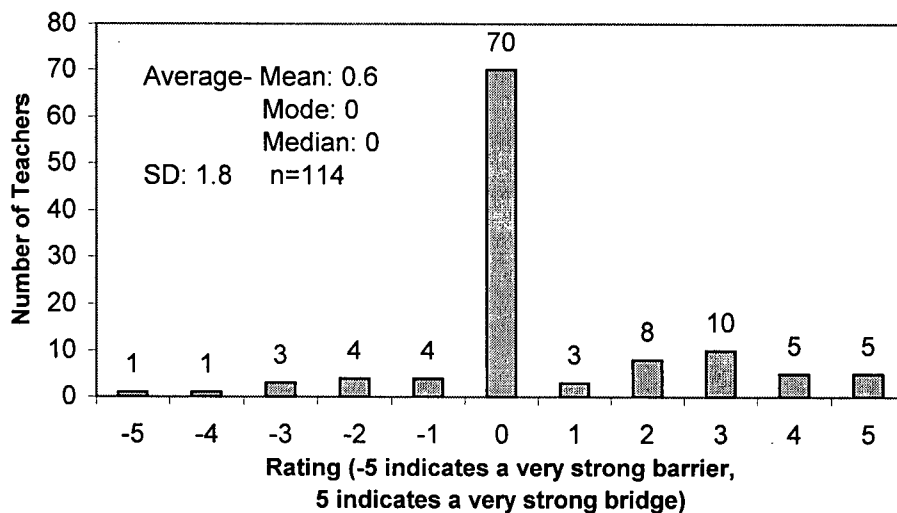


Figure 46. *Distribution of Teachers' Ratings of: Student Gender Issues as a Bridge or Barrier in Relation to Offering Outdoor Education*

4.5.8 Factors Dealing with Accessing Outdoor Spaces

The factors in this category were seen as bridges to OE. They had means of +1.7 and +2.0 and showed a strong distribution of positive ratings.

Proximity of Outdoor Areas (Figure 47) had a mean of +2.0, a mode of +5, a median of +3, and a standard deviation of 3.0 (n=113). It was rated a bridge to offering OE by 70% of teachers, while 9% gave a rating of 0.

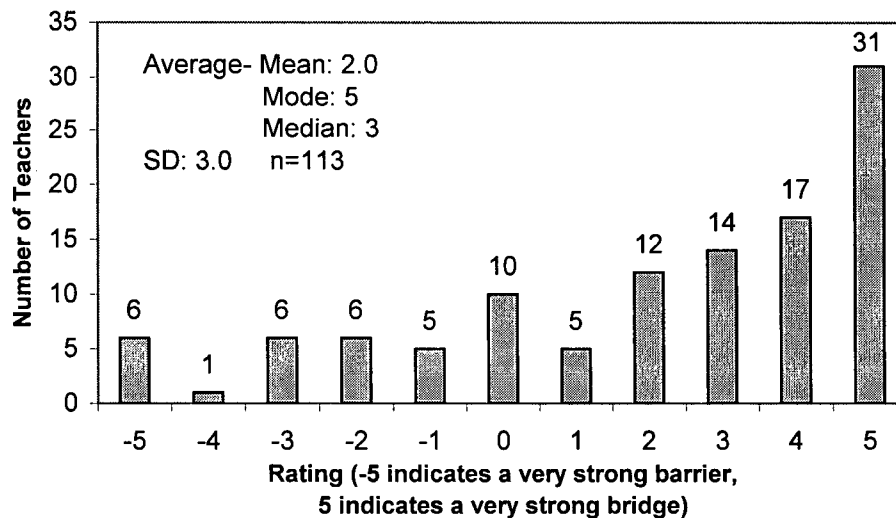


Figure 47. *Distribution of Teachers' Ratings of: Proximity to Outdoor Areas as a Bridge or Barrier in Relation to Offering Outdoor Education*

This factor is strongly influenced by teachers' understanding of 'outdoor area' and what being in the proximity of it constitutes. Having this research done in B.C. it is no surprise that over half of the teachers gave a rating of +3 or higher: "live in B.C. (enough said)" (Q28), "We truly live in an ideal spot to pursue Outdoor Ed." (Q49), "awesome opportunity in my backyard!" (Q14), "Sunshine Coast has many wonderful outdoor areas" (Q26), "outdoor locations are very close by" (Q30), "Powell River is an ideal area to do outdoor ed. programs" (Q45), "we have a ravine near our school and it makes for an excellent ecological classroom where students learn with hands on practical experience" (Q105), "Howe Sound- need I say more?" (Q111). The 4% of teachers who gave a rating of

–4 or –5 could have a stricter definition of outdoor area or a tighter concept of proximal. The metropolitan GVRD Subgroup is analysed in relation to this factor later in this study. The Proximity of Outdoor Areas is definitely a bridge and British Columbian teachers seem to recognise the propinquity of this resource. Proximity of Outdoor Areas was rated the seventh strongest bridge to offering Outdoor Education.

Access to Outdoor Spaces (Figure 48) had a mean of +1.7, a mode of +5, a median of +3, and a standard deviation of 2.9 (n=119). It was rated a bridge to offering OE by 61% of teachers, while 13% gave a rating of 0.

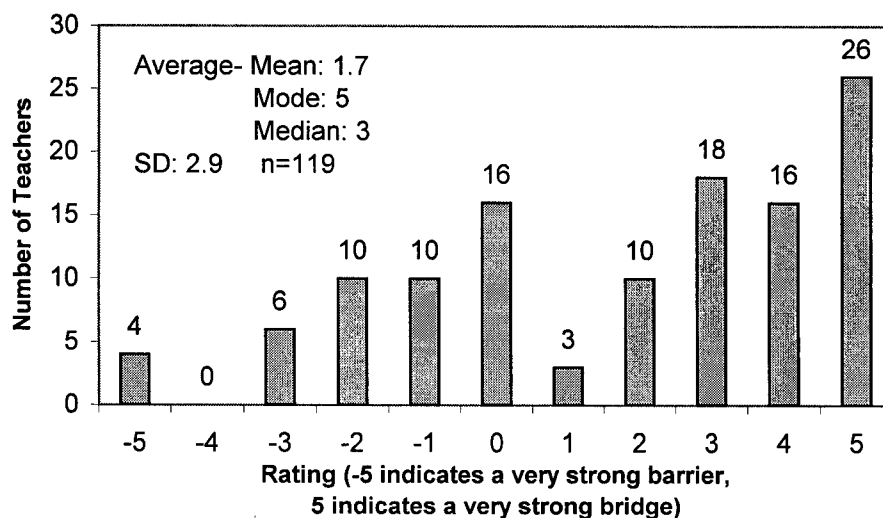


Figure 48. *Distribution of Teachers' Ratings of: Access to Outdoor Spaces as a Bridge or Barrier in Relation to Offering Outdoor Education*

Access to Outdoor Spaces is noticeably lower rated than Proximity of Outdoor Areas: a mean of +1.7 compared to +2.0. This echoes teachers' view that the outdoors is so near yet accessing it is an issue. The difference between 'access' and 'proximity' is related to the barrier factor of Transportation that is discussed later. It can be frustrating for teachers to

know that resources lay a stone's throw away, yet accessing it for OE seems daunting. Teachers optimistically stated "Access awesome- but its just often mindset" (Q44), "It is so incredibly easy to get into near-wilderness from Vancouver and environs. We are blessed with parks and green spaces within our communities" (Q94), "school is near a forest and creek, and within driving/ walking distance of beach, ocean, mountains, parks" (Q25). These are offset by negative comments on transportation needed for access: "Bus costs are enormous" (Q23), "I don't trust parent drivers for safety reasons" (Q4). Access to Outdoor Spaces is seen as a bridge to OE, but easing how to cross the short distances would improve ratings further. Access to Outdoor Spaces was rated the tenth strongest bridge to offering Outdoor Education.

4.5.9 Factors Dealing with Teacher Workload

The factors in this category were seen as barriers to OE. They had means of -0.8 , -1 and -1.5 and showed a strong distribution of negative ratings.

Teacher Preparation Time (Figure 49) had a mean of -0.8 , a mode of $0/-3$, a median of -1 , and a standard deviation of 2.8 ($n=117$). It was rated a barrier to offering OE by 58% of teachers, while 15% gave a rating of 0 .

As with all teaching, preparation time is needed for OE. The work to prepare learning experiences is often not the most beloved aspect of the teaching profession: "It is an exhaustive task" (Q96). OE is seen by some to demand more preparation time than some other methodologies and particularly so if teachers have not used a certain OE experience previously: "Outdoor Education is wonderful but too much work" (Q7), "Have seen the

amazing number of hours colleagues have spent out of school preparing for outdoor ed. experiences" (Q9), "it does require the teachers to be willing to give up a lot of personal time, on top of their regular time outside of school hours" (Q31), "Added demands on teacher time" (Q76), "Time Commitment- I'm already overwhelmed by what it takes to be a teacher" (Q69), "so much extra personal time!" (Q83), "Costs me tons of my personal time" (Q103), "planning and prep work takes a huge amount of personal time" (Q107), "planning for it is exceptionally time consuming" (Q117), "how much of my evening is given for the classroom now 2:30-8:30 most evenings. Now I give more time?" (Q53). In the face of this burden, teachers also come to terms: "It requires a great amount of time to plan and prepare for a field trip but well worth it!" (Q3). "I am willing to do the paperwork, planning etc." (Q23). To help with this barrier, many suggested some respite from the extra work: "Being allocated some extra time to get things organized makes me feel far less overwhelmed" (Q55), "opportunities [needed] for teachers to check out sites NOT on their own time" (Q38). "given prep time" (Q76). Teacher Preparation Time was also seen as a bridge by 26% of teachers. These positive ratings probably reflect upon the advantage of good preparation for OE: "Plan, plan, plan- over organise- its always easier to drop an activity than make one up on the spot" (Q80), "Proper organization takes much of the 'fear' factor out of the equation" (Q97). Teacher preparation time is crucial for OE and it is this need that makes it a strong barrier. Teacher Preparation Time was rated the twelfth strongest barrier to offering Outdoor Education.

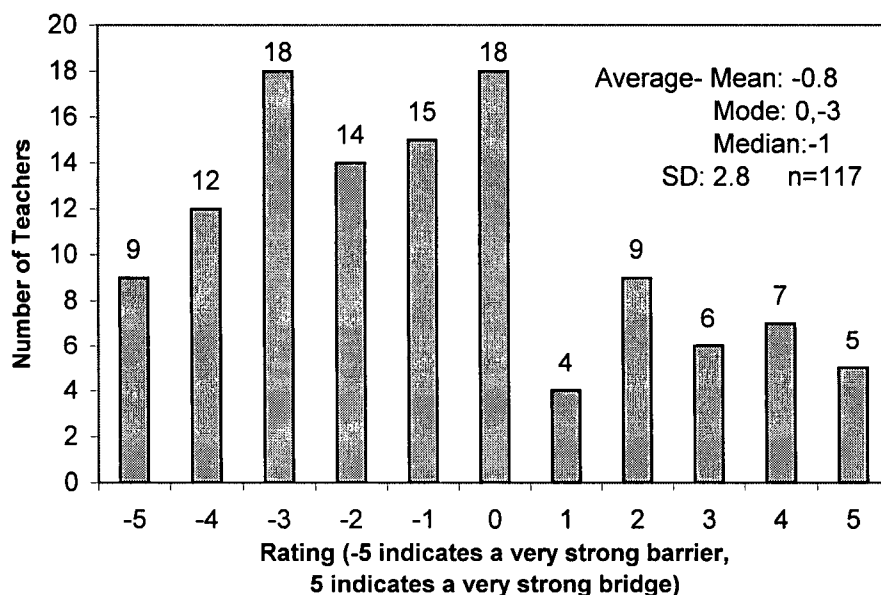


Figure 49. *Distribution of Teachers' Ratings of: Teacher Preparation Time as a Bridge or Barrier in Relation to Offering Outdoor Education*

Paperwork (Figure 50) had a mean of -1.0 , a mode of 0, a median of -1 , and a standard deviation of 2.5 ($n=117$). It was rated a barrier to offering OE by 58% of teachers, while 21% gave a rating of 0.

One facet of the teacher workload is the accompanying paperwork. The paperwork for leaving the school grounds can be daunting: “the simplest low-risk fieldtrip now requires onerous paperwork” (Q43), “too much paperwork involved” (Q25), “paperwork now required is prohibitive for a few hours of learning” (Q90), “the forms and paperwork overwhelming” (Q26), “a lot of paperwork to keep organized” (Q31), “since court decision (re ski trip) the paperwork for any trip outside the school is prohibitive (7 pages for each child)” (Q90), “Time to complete paperwork is considerable” (Q104). Permission forms, risk assessments, first aid forms, notices, transport organisation, school board papers, field

trip forms, etc. all add to the demands put on teachers. Thankfully, some paperwork is also a bridge to teachers in that it provides organisational guidance and legal support on many issues. The logistics of weakening the barrier of paperwork is complex, and many fear that with increasing bureaucracy in schools it will continue to grow. Paperwork was rated the tenth strongest barrier to offering Outdoor Education.

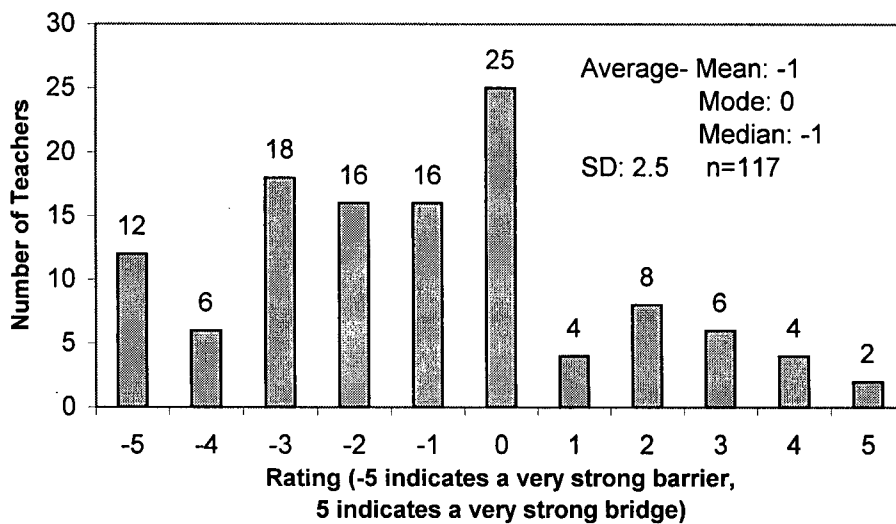


Figure 50. *Distribution of Teachers' Ratings of: Paperwork as a Bridge or Barrier in Relation to Offering Outdoor Education*

Teacher Time Outside of School Hours Implementing Outdoor Education

Activities (Figure 51) had a mean of -1.5 , a mode of 0, a median of -1.5 , and a standard deviation of 2.6 ($n=114$). It was rated a barrier to offering OE by 65% of teachers, while 19% gave a rating of 0.

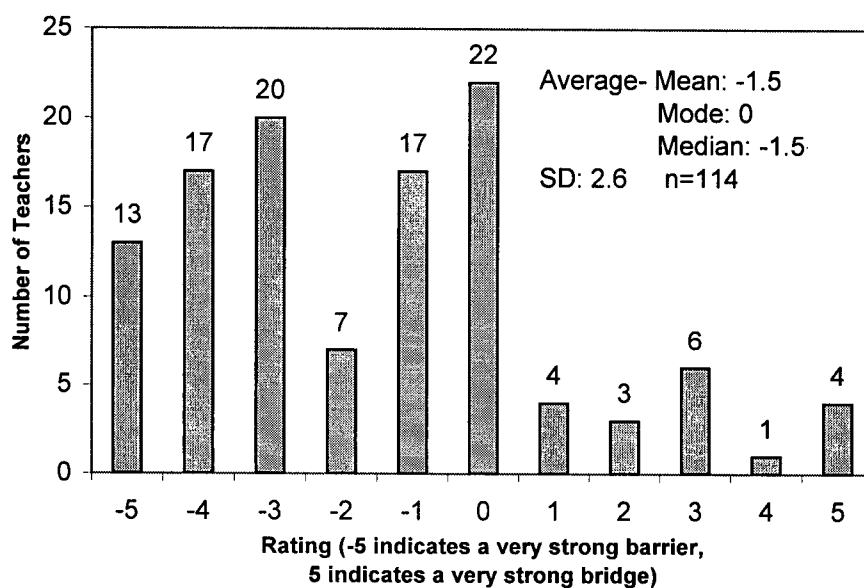


Figure 51. *Distribution of Teachers' Ratings of: Teacher Time Outside of School Hours Implementing Outdoor Education Activities as a Bridge or Barrier in Relation to Offering Outdoor Education*

On top of Teacher Preparation Time which is often achieved outside of school hours, there is also the implementation of OE activities beyond the hours of the school days: “Staff has to put in 24 hour days” (Q62), “long hours” (Q96), “24 hour job at camp” (Q87). Offering overnight excursions demands continuous time commitments that are problematic in many teachers’ lives. Participants added four factors relating to this topic, all of which were rated negatively: Family Commitments (-3), Personal Life (-5), Extra-Curricular Involvement (-3), and Personal Time Involved (-5). ‘Family’ was referred to frequently: “Young children, need to be home” (Q6), “I have 2 children. Hard to go away any distance or overnight” (Q73), “Hard to abandon personal responsibilities involving family” (Q87). Another’s strongest barrier was simply: “Lack of Time”, stating, “I already coach volleyball, chess and

do Pro-D for the district. I'm spread too thinly for overnight trips" (Q30). Implementing OE outside of school hours does have the positive side of less schedule conflicts, less curriculum time constraints and may free up staffing resources not available during school hours. Some schools compensate teachers for time spent outside of school hours implementing certain programs by increased preparation time during the regular school day, which can meet many needs if the resources are available for such a system. Teacher Time Outside of School Hours Implementing Outdoor Education Activities was rated the seventh strongest barrier to offering Outdoor Education.¹

4.5.10 Factors Seen as Moderate Barriers

The factors in this category had means of -1.1 and -1.8 and show a strong distribution of negative ratings.

Transportation (Figure 52) had a mean of -1.1, a mode of -5, a median of -1.5, and a standard deviation of 3.3 (n=114). It was rated a barrier to offering OE by 61% of teachers, while 10% gave a rating of 0.

Transportation relates to a number of other factors in this study: Access to Outdoor Spaces, School Funding, Student Costs, School Board, etc. Many teachers view transportation as yet another task to be organised and somehow paid for, but other views are taken. Statements in the strongest barrier section highlight the concern: "Transportation tend to be very expensive" (Q22), "parent volunteer drivers hard to come by" (Q12), "too

¹ It should be mentioned that there is concern that the ratings for certain factors, especially those relating to teacher workload, may be skewed due to participants not wishing to present teachers as complaining and idle. Teachers may be reluctant to express the burden they feel about demands put on them personally and prefer to say that they find the demands as less of a barrier than they really are. The true ratings of these factors may in fact be markedly more extreme than the results imply.

expensive to rent a bus for one class" (Q4), "No bus available without great cost" (Q12), "Even the 'free' experiences become costly when you have to pay for the bus" (Q99). The journey, by all sorts of transportation, can also be socially, physically and psychologically a special part of OE experiences. Included in the bridges was "walking to parks" (Q23). Adam Heeney (1997) promotes bicycles as a mode of transportation that develops many learning goals on its own. If transportation is easily organised, such as available school busses or ready and willing parent drivers, this can be a bridge for teachers. The somewhat diverse distribution of ratings implies that the ease of accessing transportation varies among teachers. Unfortunately, the cost and time that normally needs to be devoted to transportation assigns it to a moderate barrier to OE. Transportation was rated the ninth strongest barrier to offering Outdoor Education.

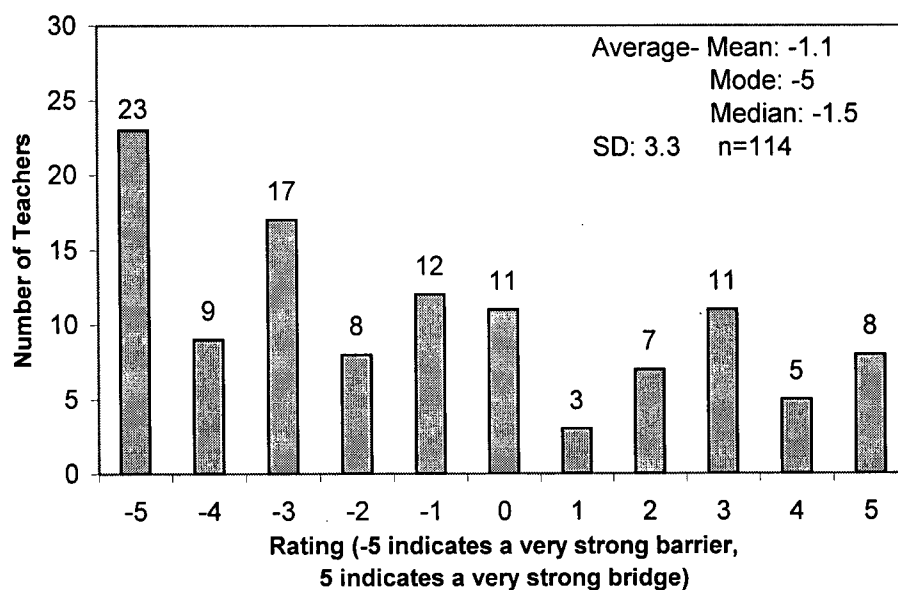


Figure 52. *Distribution of Teachers' Ratings of: Transportation as a Bridge or Barrier in Relation to Offering Outdoor Education*

Curriculum Time Restraints (Figure 53) had a mean of -1.7 , a mode of -3 , a median of -2 , and a standard deviation of 2.4 ($n=117$). It was rated a barrier to offering OE by 69% of teachers, while 20% gave a rating of 0.

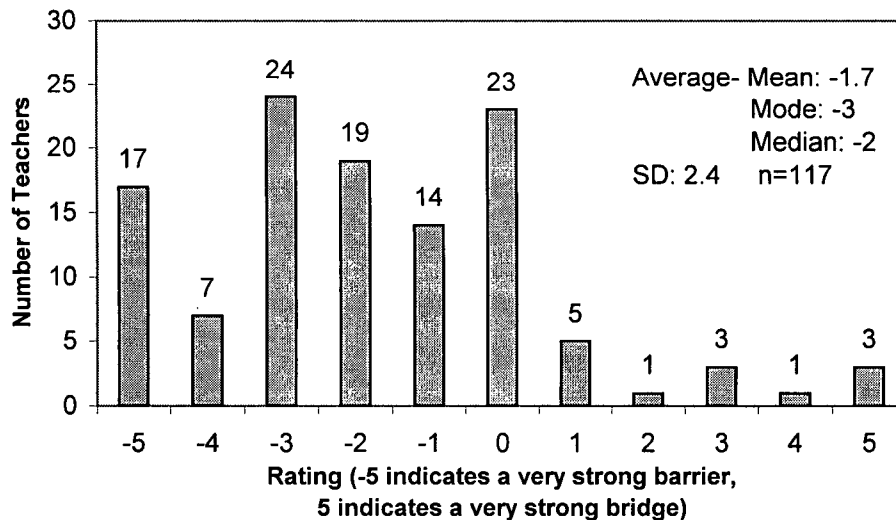


Figure 53. *Distribution of Teachers' Ratings of: Curriculum Time Restraints as a Bridge or Barrier in Relation to Offering Outdoor Education*

Curriculum Time Restraints is directly linked to the factor of Prescribed Curriculum. Multiple remarks piggyback the idea that OE is not a part of the curriculum and therefore time for OE is time lost from the curriculum: “too much material to cover, doesn’t lend itself to taking time off for outdoor ed.” (Q72), “time needed to get through curriculum” (Q123), “There’s so much to get through in the curriculum and already so many distractions in the school” (Q113), “It is hard to cover what we need” (Q79). There is a distress call that there is simply not enough time in general: “There is a lack of time to pursue meaningful outdoor ed. activities” (Q11), “Too much to teach, never enough time” (Q16), “Not enough time to cover curriculum” (Q103), “Too much to teach, not enough time. They keep adding

more, but nothing is eliminated” (Q66), Some comments infer that OE may be part of the curriculum but competes for time with other areas: “I’m hesitant to take more time from [other curriculum], even when it would be such a huge benefit” (Q45), “how to meet other curriculum IRP’s in time we have” (Q49), “When do we get in the reading, math, etc.” (Q99), “Finding time to fit activities in without arousing parental fears of creating shortcomings in other subject matter” (Q50). OE is also treated like a teaching method that takes longer than others and therefore time consuming: “Classroom teachers have a hard enough time fitting the curriculum in that taking the students away during school time is not looked upon kindly” (Q98), “[Outdoor Education] puts greater limits on time available to cover all subjects” (Q119), “cannot afford time away from classroom” (Q32), “There are so many ‘extra’ things in our day it is some times hard to get out” (Q58). At the same time OE is extolled as a benefit to curricular time constraints: “children learned so much more in the week than a month of science in the classroom” (Q31). OE is also pushed aside by more traditional evaluation systems: “Data-driven, testing agenda pushes classroom instruction” (Q56), “always feel short on time to cover everything before reporting” (Q22). The finite limits of time heap great stress on OE, as it does so many other areas of education. Time is one of the greatest barriers to teachers offering Outdoor Education. Curriculum Time Restraints was rated the fifth strongest barrier to offering Outdoor Education.

4.5.11 Factors Dealing with Money

The factors in this category had means from -1.3 to -2.3 and show a strong distribution of negative ratings.

School Fundraising (Figure 54) had a mean of -1.3 , a mode of -5 , a median of -2 , and a standard deviation of 3.1 ($n=118$). It was rated a barrier to offering OE by 60% of teachers, while 9% gave a rating of 0.

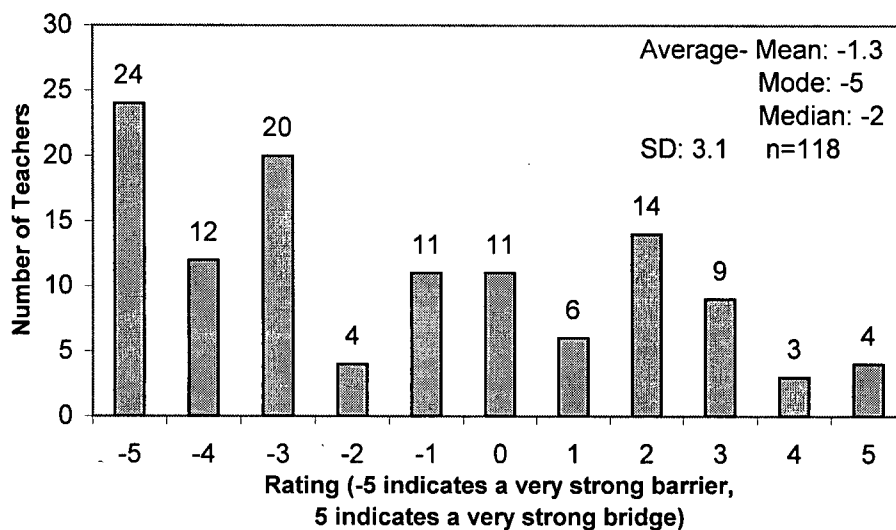


Figure 54. *Distribution of Teachers' Ratings of: School Fundraising as a Bridge or Barrier in Relation to Offering Outdoor Education*

Among those factors dealing with money, all had negative averages, but School Fundraising had the largest percentage of positive ratings: 31%. Fundraising can be used in an attempt to compensate the grim state of other financial factors, but it is not widely cherished. It carries an uninspiring report: "I hate all the fundraising" (Q7), "The fundraising is exhausting!" (Q118), "Fundraising is frowned on" (Q38). Fundraising is viewed as

arduous and time consuming with few benefits: “fundraising can be difficult and time consuming” (Q22), “Limited opportunities for meaningful fundraising that doesn’t interfere with learning time nor be too labour intensive for teacher” (Q88), “If [...] I didn’t have to spend months fundraising I might be more inclined to go more often” (Q96), “We fundraise all year for our 3 day camp” (Q41), “No time to fundraise” (Q4), “it requires exhaustive fundraising activities” (Q57), “I’m too busy teaching and coaching to fundraise or to organise fundraising” (Q92). Some point to difficulties in fundraising: “Some students are unwilling to fundraise even if it reduces their costs” (Q68), “can be tough to raise enough money” (Q89), “low income area with a difficulty in fundraising” (Q3). Among the characteristics of fundraising is that fact that it can acquire the needed funds and can be the only viable means to an end. If it does this, it shines positively: “fundraising is good when done well” (Q89), “we have a great PAC support for fundraising” (Q18). Fundraising proves to be a weathered bridge that teachers label their eighth strongest barrier to offering Outdoor Education.

Teacher Costs (Figure 55) had a mean of -1.5, a mode of 0, a median of -1, and a standard deviation of 3.1 (n=116). It was rated a barrier to offering OE by 54% of teachers, while 34% gave a rating of 0.

Teachers are known to spend from their own wallets for their teaching. Books, stationary, rewards and more are often bought with teachers’ personal funds. This is not a prerequisite, but often seen as the only practical way to acquire class needs. When Outdoor Education is offered, teachers see these personal costs rise: “may have to be out of pocket and this would happen if I saw the benefit to some of my students” (Q51), “Costs me tons of money” (Q103), “if you end up short, the teachers have to pay the bill” (Q122). Some

teachers must pay for their own fees on Outdoor Education, which can aggravate: “teachers often pay their own way, becomes too expensive and costly” (Q60). One participant had a refreshing point of view: “Many programs that are offered are free, or at the very least, very little cost to the teacher” (Q16). Adding a financial weight onto teachers personally for offering OE is an undeserved barrier that affects over half of the teachers and seen as the sixth strongest barrier.

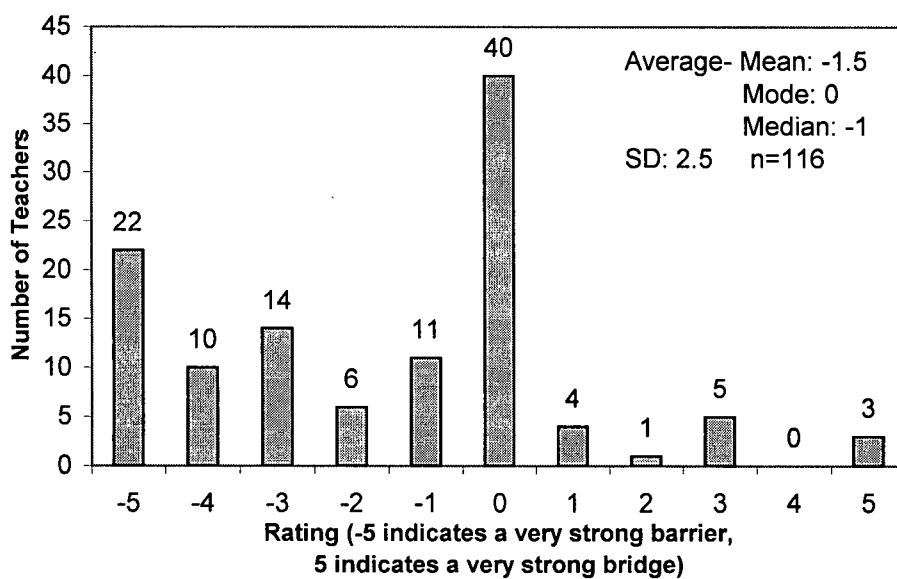


Figure 55. *Distribution of Teachers' Ratings of: Teacher Costs as a Bridge or Barrier in Relation to Offering Outdoor Education*

Student Costs (Figure 56) had a mean of -2.2, a mode of -5, a median of -3, and a standard deviation of 2.4 (n=118). It was rated a barrier to offering OE by 76% of teachers, while 11% gave a rating of 0.

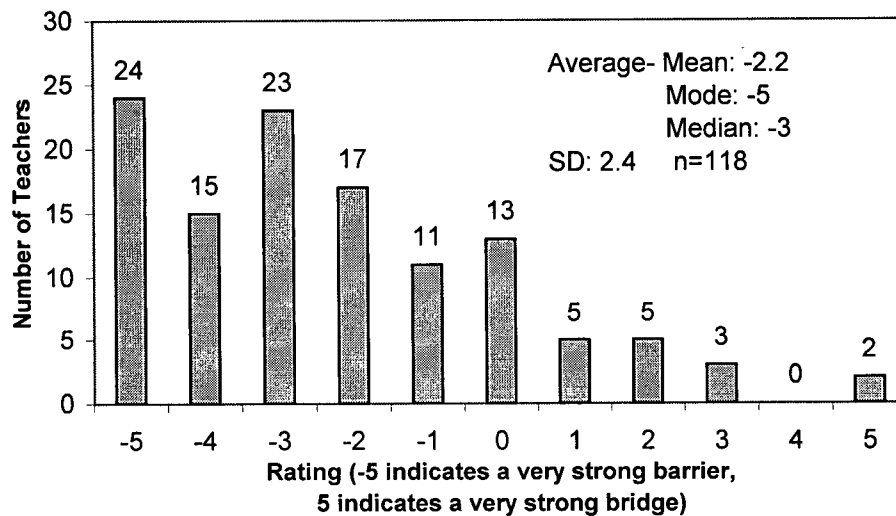


Figure 56. *Distribution of Teachers' Ratings of: Student Costs as a Bridge or Barrier in Relation to Offering Outdoor Education*

The vast majority of teachers see the financial load being placed on students, and in turn their parents, as too great: “Money! It is expensive” (Q106), “Cost, cost, and cost” (Q112), “costs for students are too high with bus and entrance fees” (Q2), “of all the camps I checked out for my Gr. 7’s last year all were cost prohibitive” (Q112). There was a major outcry about financial difficulties for many families: “fewer families able to afford cost” (Q115), “students are unable to meet high costs due to socio-economic makeup” (Q126), “Low income family based school population” (Q111), “The families for the most part do not have enough money to pay for these activities” (Q124), “Many of my students’ parents could not afford it” (Q112), “We are not an ‘affluent’ community” (Q118), “We are an Inner City School – very limited parent funds” (Q23). Teachers resent asking parents for money: “I feel bad asking for money for field trips” (Q125), “Get tired of asking parents for money for field trips” (Q104). There is also the question of whether parents should be asked to pay for

'public' education: "We are offering too much at the school level that costs big bucks. What happened to free education? I find it sad!" (Q14), "We require parents to absorb more and more of the costs" (Q81). One teacher endorses cost-free OE from a social justice standpoint: "promote equality for kids from all walks of life- Who needs outdoor education more?" (Q112). Another participant supports the concerns of social injustice: "My experience (having taught in private system) is that kids (and families) with money can afford it and the regular public school kids (especially in poverty belt- who need it most) cannot (Q112). Student Costs was the third strongest barrier for teachers to offering OE.

School Funding (Figure 57) had a mean of -2.3, a mode of -5, a median of -3, and a standard deviation of 3.0 (n=119). It was rated a barrier to offering OE by 75% of teachers, while 3% gave a rating of 0.

It is a concern to all those involved in education, and teachers to an exceptional level- school funding. The view that funds are lacking in B.C. schools is widespread: "not enough money at school level" (Q38), "Funding is just not there" (Q38), "money seems to be the biggest [barrier]" (Q83) "There is very little money in the schools" (Q109), "No money for OE" (Q111), "lack of money" (Q76). The examples are copious. Perhaps particular to B.C. at the moment, there is a call for improving funding to former levels at minimum: "gov't needs to restore funding!" (Q64), "We need to restore funding to schools" (Q81), "Our outdoor school [...] was closed for budget reasons" (Q39), "[there is] less help from governments" (Q115). Fortunately, some teachers rated School Funding as a bridge. One can assume that funding is indeed available for some to promote OE experiences. Still, the second strongest barrier rated by teachers, offers one piece of advice: "fund it" (Q112).

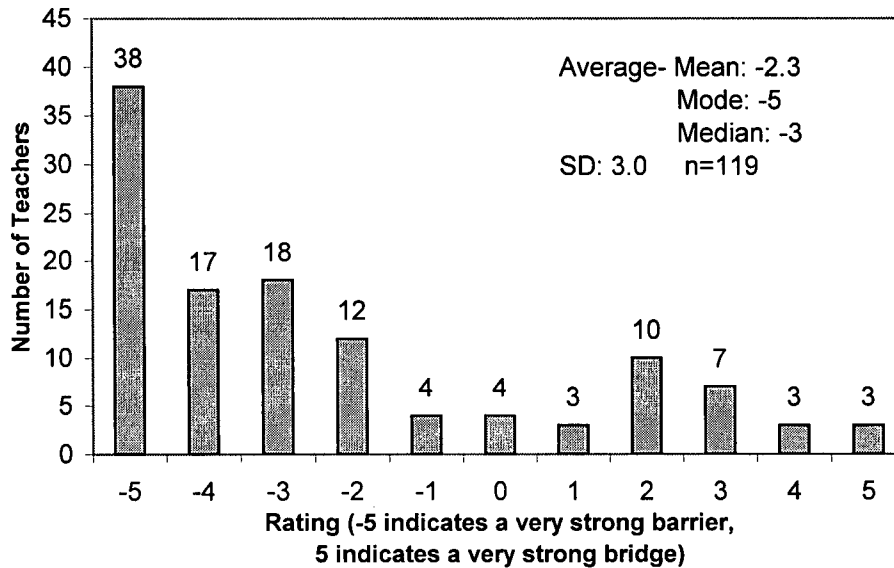


Figure 57. *Distribution of Teachers' Ratings of: School Funding as a Bridge or Barrier in Relation to Offering Outdoor Education*

4.5.12 Factors Dealing with Student Safety and Legal Liability

The factors in this category had means of -1.8 and -2.8 and show a strong distribution of negative ratings.

Student Safety Concerns (Figure 58) had a mean of -1.8 , a mode of -3 , a median of -2 , and a standard deviation of 2.4 ($n=116$). It was rated a barrier to offering OE by 72% of teachers, while 16% gave a rating of 0.

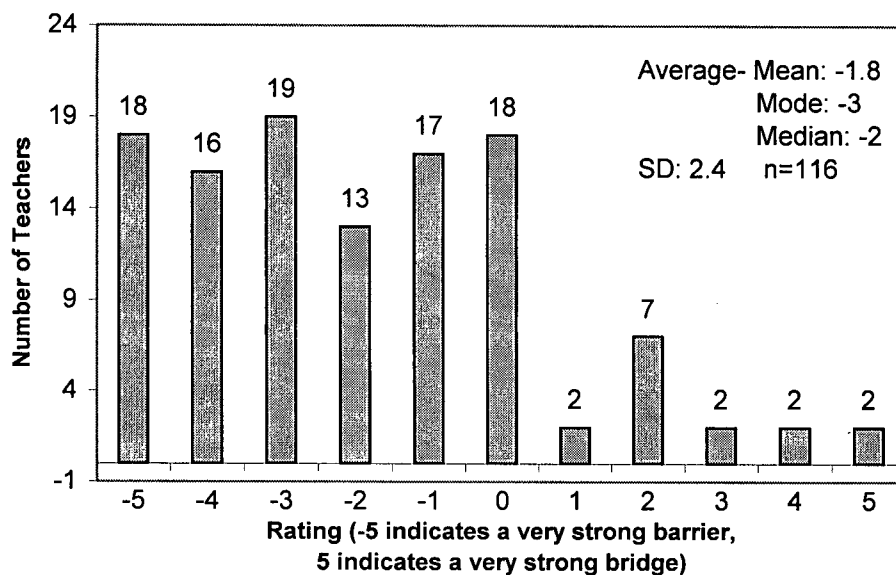


Figure 58. *Distribution of Teachers' Ratings of: Student Safety Concerns as a Bridge or Barrier in Relation to Offering Outdoor Education*

“Student safety concerns- Goes hand in hand with liability concerns” (Q13). For a teacher in B.C. during the 2003/2004 school year, separating the idea of students’ safety and legal liability is difficult: “Worries about liability/ injury keeps me from trying ski trips for example” (Q68). The phrases seem to blur into one another as they are touted as synonyms in conversation, print material, and most likely, in this questionnaire. Apart from the legal liability, teachers obviously do care about the safety of their students, and their empathy is not doubted when displayed: “I would be afraid that a child could get hurt” (Q109). But the true concern for students’ actual health and welfare is not reflected in the barrier rating for this factor. It seems that teachers do not avoid OE because students would be placed in unreasonable danger, but rather because they fear that exposing students to normal, healthy life experiences can lead to legal ramifications: “too much concern with ‘safety issues’”

(Q60), “too much safety concern” (Q61), “far too many concerns with safety for students. Almost makes teachers not want to go” (Q102). Statements such as, “How can we offer exciting, unique opportunities and keep them safe” (Q13), leaves one asking if this teacher means reasonably safe, like one hopes to live a life, or does she mean excessively safe due to a downward spiral of an over-litigious society. Due to the fact that Student Safety Concerns is rated as a much weaker barrier than Legal Liability, one infers that teachers are indeed less concerned with OE being unsafe for students, as they are concerned about the legalities surrounding possible injuries. Isolating student safety from the affects of legal liability may produce a significantly different rating. The Student Safety Concerns presently stands as teachers’ fourth strongest barrier.

Legal Liability (Figure 59) had a mean of -2.8, a mode of -5, a median of -3, and a standard deviation of 2.3 (n=119). It was rated a barrier to offering OE by 84% of teachers, while 10% gave a rating of 0.

Legal Liability is a complex issue that invokes fear in many teachers: “I’m scared of possible legal implications of injury, etc.” (Q46), “There is a great deal of ‘fear’ surrounding activities that have a higher level of legal liability” (Q97), “I’m not exactly sure how this works but it is scary these days” (Q48), “Fear of legal suit” (Q112), “With the lawsuits that have occurred in the last few years it is scary to take a class on a field trip” (Q52). The danger is also seen as personal: “Am I prepared to take that risk on a personal level?” (Q14), “I do not need / want to be sued” (Q78).

Even with the fear overcome, liability has added other hindrances: “Many hoops to jump through” (Q50), “Parents are fed up with the number of forms they’re required to sign,

etc.” (Q43), “permission slips are ‘scary and daunting’ for parents. Too much legalese” (Q27). Administration and districts are also seen to be less cooperative due to liability: “[Liability] affects the administration decisions more than me personally” (Q52) “the liability issues have made our board more reluctant to o.k. trips” (Q63) “School board is very fearful of insurance claims etc. This fear filters down to our administrators / teachers, etc.” (Q1). There is a strong belief that legal liability is a rampant nemesis: “parents are very likely to sue if any little thing goes wrong let alone an injury” (Q53), “one accident could mean the end of a teaching career” (Q95), “afraid of being sued or being held libel even when all precautions addressed” (Q51). The negative impact of legal liability is very evident in teachers’ rating and comments. Legal Liability was the number one barrier to offering Outdoor Education for teachers.

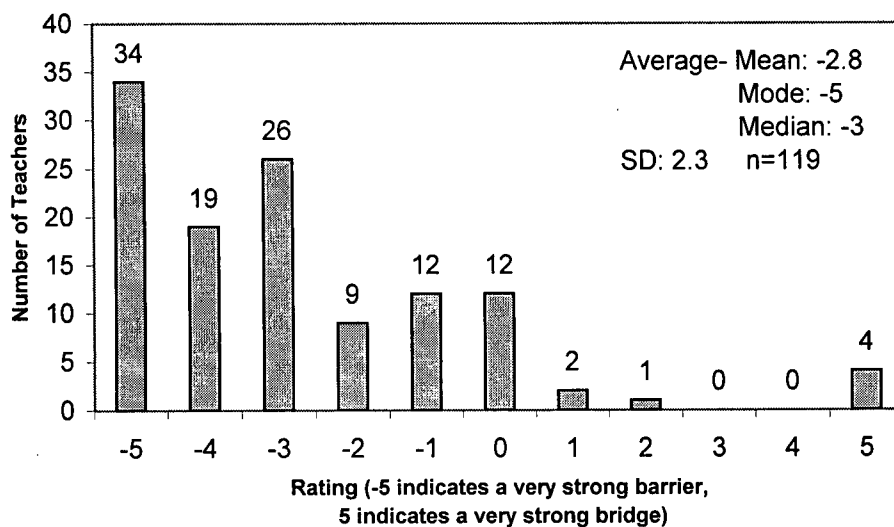


Figure 59. *Distribution of Teachers' Ratings of: Legal Liability as a Bridge or Barrier in Relation to Offering Outdoor Education*

4.5.13 Factors Dealing with Student and Teacher Mindset

The factors in this category had means of +2.2 and +3.2 and show a strong distribution of positive ratings.

Teacher Philosophy (Figure 60) had a mean of +2.2, a mode of 0, a median of +3, and a standard deviation of 2.4 (n=118). It was rated a bridge to offering OE by 64% of teachers, while 25% gave a rating of 0.

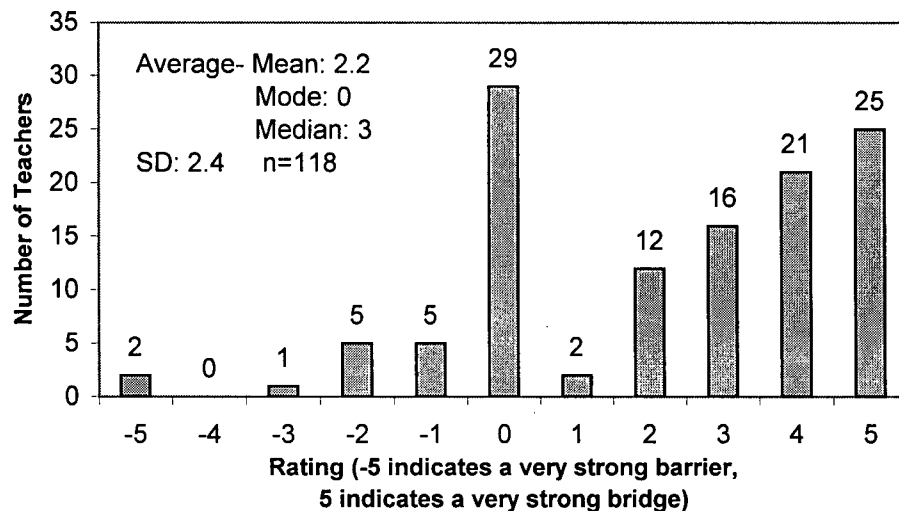


Figure 60. *Distribution of Teachers' Ratings of: Teacher Philosophy as a Bridge or Barrier in Relation to Offering Outdoor Education*

Teacher Philosophy is interwoven into all areas of teaching, and so, is also reflected in many of the other factors studied. Certain comments better illuminate a general understanding of how teachers distinguish OE as a pedagogical method. Many comments give straight forward endorsements of OE: “Good for them” (Q113), “I believe it is just the best way to learn” (Q78), “Strong belief in outdoor education for students” (Q1), “What great

way to show our love of outdoor education to kids in a fun learning experience” (Q83), “I fully believe outdoor education is valuable” (Q117), “It is a valuable experience for all students” (Q117), “Strong believer in outdoor ed.” (Q26), “It is a wonderful chance to learn” (Q7), “Great experience for kids” (Q6). Teachers also expressed their own positive feelings: “I like to be a part of ‘Outdoor Ed.’” (Q59), “I really enjoy the outdoors and would jump at the chance to do it any time” (Q80), “What a high to see kids in this new light” (Q80), “My knowledge / passion for getting outdoors” (Q86), “a great deal of enthusiasm to put an organised outdoor education plan in place” (Q97), “Personal interest to use outdoors to enhance learning” (Q42), “I enjoy, therefore I like to put in the time” (Q61), “a passion for the outdoors which leads to a desire to share the joy of the outdoors with students” (Q35), “personal passion” (Q88), “I love being outdoors and appreciating nature” (Q26), “I like being outside” (Q81), “It’s joyful to see them exploring and experiencing nature (Q4), “My desire to do Outdoor Education” (Q23). The belief that students learn particularly well and in different ways during OE was incorporated in many comments: “I strongly believe students gain in all areas from Outdoor Ed.” (Q52), “I love that everything is so hands-on” (Q55), “students can gather and show information in new ways” (Q64), “More valid experiences, especially for biology, ecology” (Q65), “‘live’ the experience” (Q78), “Good way to get students involved” (Q76), “introduce students to the world around them” (Q89), “Many of the teachers are outdoor enthusiasts (like myself) who know the benefits and the wonder in outdoor education” (Q97), “the benefit that I know it could have for the kinds of kids I teach” (Q112). A contrast between OE and classroom teaching is also noted: “uses more realistic teaching than just in class” (Q113), “teach new skills not found in the classroom” (Q89), “Give students who do not do well in class structure to show strengths”

(Q90). OE is portrayed as an avenue to something new for students: “They are eager to get away and do something worthwhile and many never have been able to” (Q112) “I believe that students need outdoor experiences in order to broaden their horizons” (Q95), “Students have the opportunity to do something outside their too electronic videogame lives” (Q87), “Many of our students would never have the chance to experience what we offer and they are changed in many ways” (Q97), “I think children should be exposed to a variety of outdoor activities” (Q109), “It is a great contrast to hanging out at malls and on street corners” (Q120), “So many kids have minimal outdoor experience” (Q4). An interesting comment demonstrates how teachers feel that offering OE experiences goes beyond teachers’ personal preferences: “Although snowshoeing and hiking to the Joffrey Lakes was not for me – it was still something I wanted the kids to experience” (Q39). As the above comments support, Teacher Philosophy is a strong bridge to Outdoor Education, making it the sixth strongest bridge identified in this study.

Student Interest (Figure 61) had a mean of +3.2, a mode of +5, a median of +4, and a standard deviation of 2.0 (n=111). It was rated a bridge to offering OE by 86% of teachers, while 8% gave a rating of 0.

As more student centred ideologies bloom in education, a respect for student interest grows: “One of the most motivating factors is the interest of my students” (Q112). Teachers acknowledge the many advantages of having interested students: “When interest is high learning and success can be greater” (Q119), “enjoyable, therefore memorable!” (Q65), “intrinsically motivated to do things” (Q122), “highly motivating (means kids want to participate and can’t help but learn)” (Q8). The vast majority of teachers recognise powerful

student interest: “they love it” (Q66), “students love outdoor ed.” (Q72), “The ‘passion’ it creates in students” (Q78), “Anytime I have done any outdoor education activity, students have been really excited” (Q124), “Kids love to go” (Q39), “lots of enthusiasm” (Q50), “our students loved the outdoor learning” (Q31), “The students love getting out of the school and exploring the outdoors” (Q24), “Kids love it. Highly motivated.” (Q12), “Students love to explore outdoors and the movement it allows” (Q18), “Always excited and eager” (Q14), “all students like to get out of class” (Q28). But not all teachers are this convinced and are more cautious with their wording: “Most students love the opportunity” (Q80), “Students (for the most part) love ‘stuff’ outdoors” (Q16). Student interest was also presented as prohibitive: “Each time I have taken my students outdoors- complaints are frequent if anything involves physical activity” (Q86), “students do not show strong desire or motivation- if they went, perhaps interest would grow” (Q126). One participant who promoted OE through an extra-curricular Outdoors Club revealed her opinion of varying student interest: “Bringing a class of different interests who may not like the activity creates behaviour problems and dangerous / unsafe conditions” (Q107). Ratings and comments by teachers about student interest in regards to Outdoor Education are overwhelmingly positive. Student Interest was rated as the fourth strongest bridge to offering Outdoor Education.

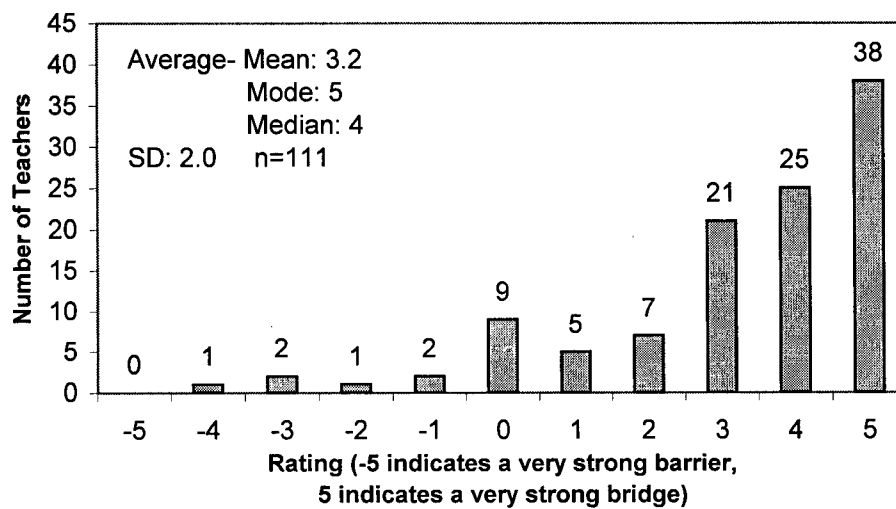


Figure 61. *Distribution of Teachers' Ratings of: Student Interest as a Bridge or Barrier in Relation to Offering Outdoor Education*

4.5.14 Factors Dealing with Student Characteristics

The factors in this category had means from +1.1 to +2.0 and show a strong distribution of positive ratings.

Student Skill (Figure 62) had a mean of +1.1, a mode of 0, a median of +1, and a standard deviation of 2.1 (n=114). It was rated a bridge to offering OE by 59% of teachers, while 25% gave a rating of 0.

The majority of participants rated Student Skill a bridge. As with all factors dealing with student characteristics, it is not clear how much of this reflects the view of student current skills that would benefit from improvement through OE or whether the possessed skills promote offering OE. Those that rated Student Skills negatively, may sense either a lack of certain skills that prohibits OE for safety reasons or recognised needs in other areas,

or alternatively, strong student skills are present that make OE experiences superfluous. Comments lean towards OE being a medium for improving skills: “learn new skills they wouldn’t otherwise learn or be exposed to” (Q117). Commentary under *Factors Dealing with Student Gains* adds more depth to this topic. Student Skill was rated the thirteenth strongest bridge.

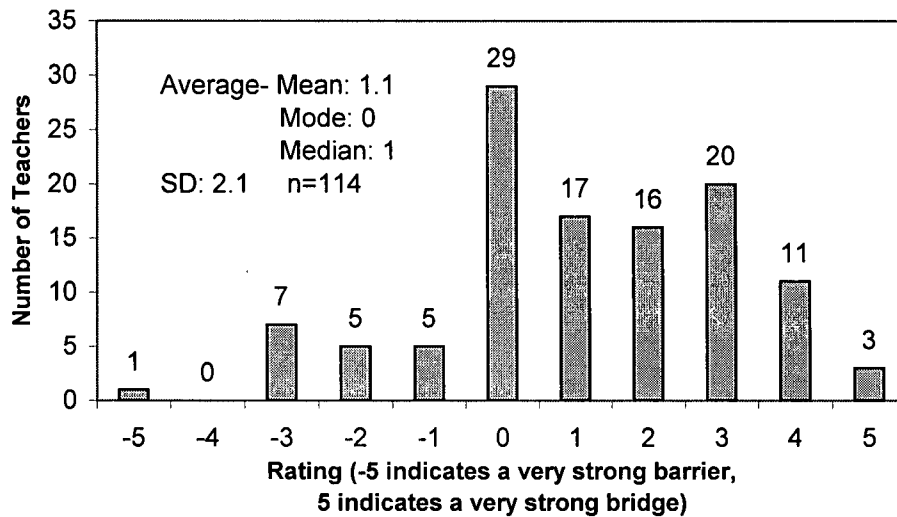


Figure 62. *Distribution of Teachers' Ratings of: Student Skill as a Bridge or Barrier in Relation to Offering Outdoor Education*

Student Knowledge (Figure 63) had a mean of +1.2, a mode of 0, a median of +1, and a standard deviation of 1.8 (n=114). It was rated a bridge to offering OE by 61% of teachers, while 28% gave a rating of 0.

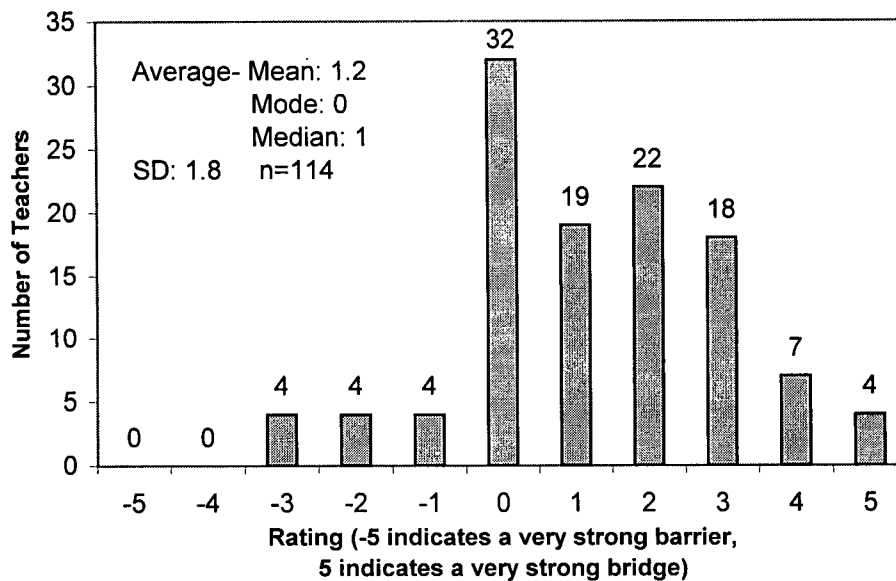


Figure 63. *Distribution of Teachers' Ratings of: Student Knowledge as a Bridge or Barrier in Relation to Offering Outdoor Education*

Like Student Skills, the basis for rating Student Knowledge remains somewhat elusive. One participant upheld OE experiences by stating: “Many of the students spend a lot of time outdoors already- fishing, camping, etc” (Q30). Commentary under *Factors Dealing with Student Gains* adds more depth to this topic. Student Knowledge was rated the twelfth strongest bridge to offering Outdoor Education.

Student Physical Health (Figure 64) had a mean of +1.9, a mode of +2, a median of +2, and a standard deviation of 2.2 (n=115). It was rated a bridge to offering OE by 73% of teachers, while 14% gave a rating of 0.

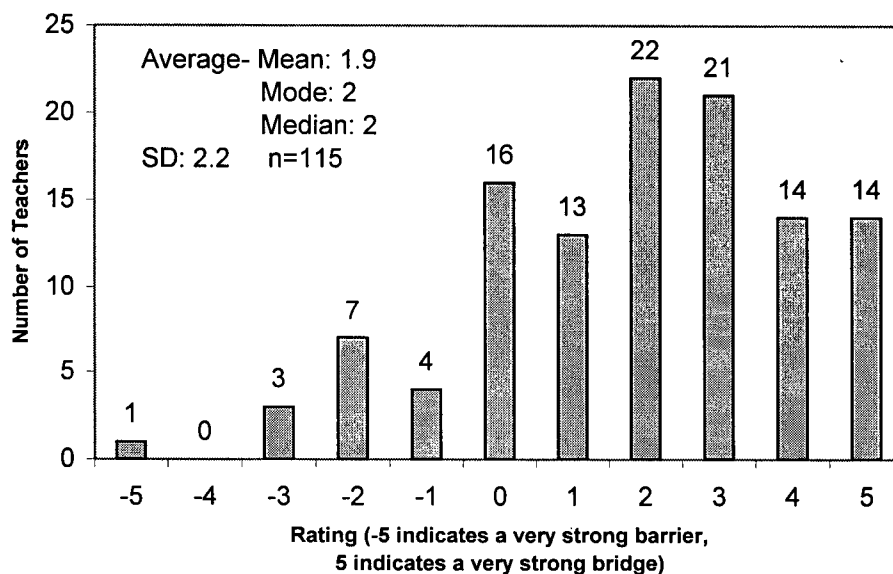


Figure 64. *Distribution of Teachers' Ratings of: Student Physical Health as a Bridge or Barrier in Relation to Offering Outdoor Education*

Student Physical Health also has vague rating origins like the previous two factors. Physically healthy students may promote OE by making certain activities more easily achieved and make advancement to more interesting and educational experiences fluid. On the other hand, a lack of physical health seems to be more regularly cited as a motive for OE: “Kids don’t get enough exercise! Fun, new activities would (may) encourage them to get exercise” (Q109), “some need all the opportunity to be active and also discover life outside computers / videos” (Q51). In contrast, unhealthy students may cause negative comments: “complaints are frequent if anything involves physical activity” (Q86). Commentary under Student Physical Health Gains adds more depth to this topic. Student Physical Health was rated the ninth strongest bridge to offering Outdoor Education.

Student Mental Health (Figure 65) had a mean of +2.0, a mode of +3, a median of +3, and a standard deviation of 2.3 (n=112). It was rated a bridge to offering OE by 71% of teachers, while 16% gave a rating of 0.

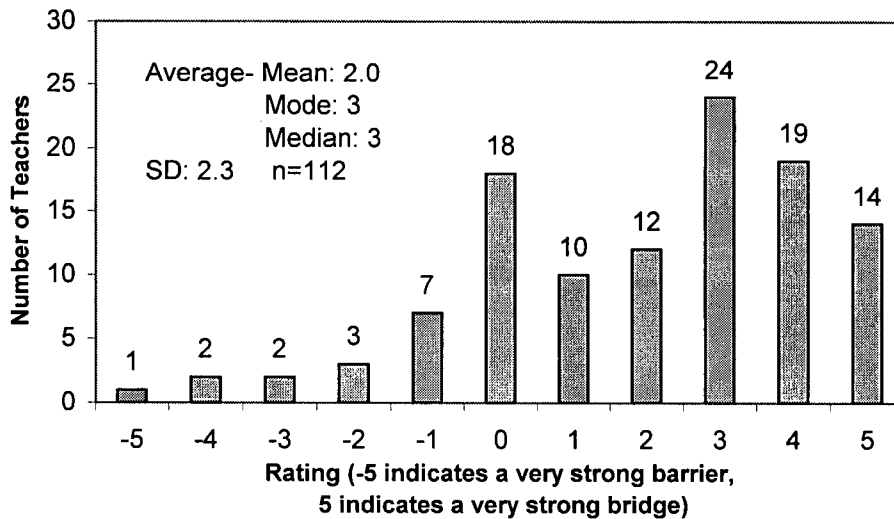


Figure 65. *Distribution of Teachers' Ratings of: Student Mental Health as a Bridge or Barrier in Relation to Offering Outdoor Education*

Student Mental Health is yet another factor with imprecise rating origins. Some teachers obviously feel that Student Mental Health is primed to enjoy the benefits of OE: “Helps to develop much needed positive attitudes towards learning and the outdoors!” (Q5), “gives kids respite from norm” (Q32). The level of OE experiences a teacher leads must be somewhat dictated by the mental independence and security students possess, although few comments indicated this: “children’s fears of overnight” (Q82). Commentary under Student Mental Health Gains adds more depth to this topic. Student Mental Health was rated the eighth strongest bridge to offering Outdoor Education.

4.5.15 Factors Dealing with Student Gains

The factors in this category had means from +2.9 to +4.1 and show a strong distribution of positive ratings.

Academic Gains (Figure 66) had a mean of +2.9, a mode of +5, a median of +3, and a standard deviation of 2.0 (n=115). It was rated a bridge to offering OE by 83% of teachers, while 14% gave a rating of 0.

What is understood as 'academic' varies tremendously, yet teachers tend to agree that academic gains are a bridge to offering OE. Under the strongest bridges of Academic Gains one participant accentuates the door-opening quality of OE: "the world is a classroom" (Q67). Others also emphasise OE's liberating nature: "Amount of teaching opportunities in outdoors is vast" (Q125), "Expanding student parameters of learning" (Q5). Because OE is seen as "excellent for student engagement" (Q22), this leads to further pedagogical benefits: "A lot of what is done outside the classroom is remembered by students because it is a unique occurrence" (Q68), "they remember it more" (Q104), "relate to real experiences" (Q104), "Great social and academic experience" (Q110), "The kids had fun and learned a lot" (Q39). Certain academic subject areas are also directly declared to profit: "It provides an excellent resource for students in the areas of Science, Socials, Art, Writing, C.A.P.P., etc. (Q9). These positive comments are offset by a view of OE as less 'academic': "not enough time to teach academics as it is" (Q32), "taking students outside, away from the classroom, as beneficial as it may be, it's time out of the classroom" (Q117). Academic Gains was rated the fifth strongest bridge to offering Outdoor Education.

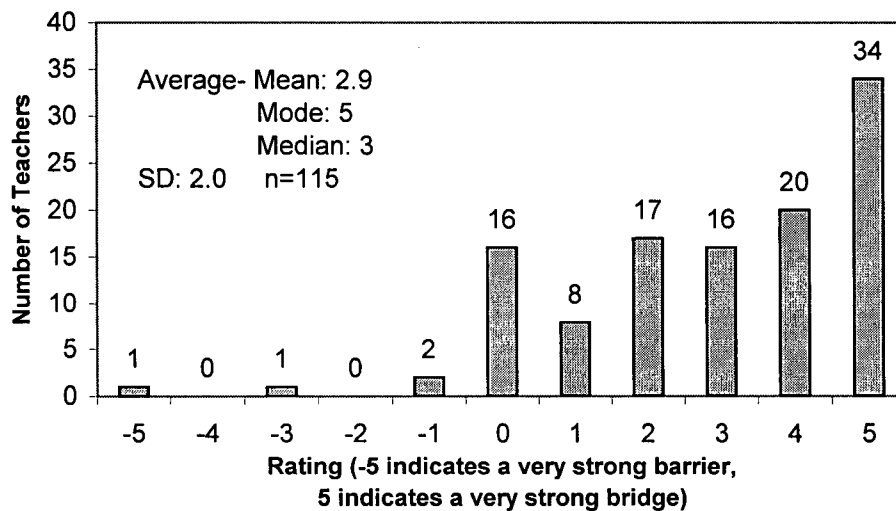


Figure 66. *Distribution of Teachers' Ratings of: Academic Gains as a Bridge or Barrier in Relation to Offering Outdoor Education*

Physical Health Gains (Figure 67) had a mean of +3.7, a mode of +5, a median of +4, and a standard deviation of 1.5 (n=115). It was rated a bridge to offering OE by 93% of teachers, while 6% gave a rating of 0.

The active nature of OE proves attractive to teachers: “Outdoor Education provides movement and learning at the same time (Q119), “Active living is a huge part of my life and I like to model it for my students” (Q125), “motivates kids to be more active” (Q8). Teachers also identify the holistic health rewards: “Outdoor Ed. is important to getting kids healthier” (Q21), “students will become active and learn how to become physically active in the outdoors” (Q122), “physical activity has wealth of rewards for students” (Q126), “benefits- to children’s health” (Q21), “outdoor setting combined with improving muscle strength, fine motor skills, bone density, etc.” (Q2), “promotes healthy lifestyle” (Q46). There is a popular opinion that OE offers new and important experiences not otherwise

offered to students: “For those students who do not ‘like’ the gym, this is a great alternative” (Q102), “An intro to something new may extend into a student’s adult life” (Q111), “Shows students different forms of exercise” (Q125), “It helps students get more exercise and some of them won’t have the opportunity to try that activity” (Q27). OE provides physical activity noticed lacking in other school activities: “gives students physical health benefits they do not get at school” (Q32), “misconception that physical activity is available through sports teams and PE which ‘is sufficient’” (Q101). Teachers note the possibility for deeper physical health gains: “students need to find a leisure activity they are passionate about” (Q114), “great lifelong physical education opportunities” (Q72). Teachers prove cognisant of many physical health gains afforded by OE. Teachers rated Physical Health Gains as the third strongest bridge offering Outdoor Education.

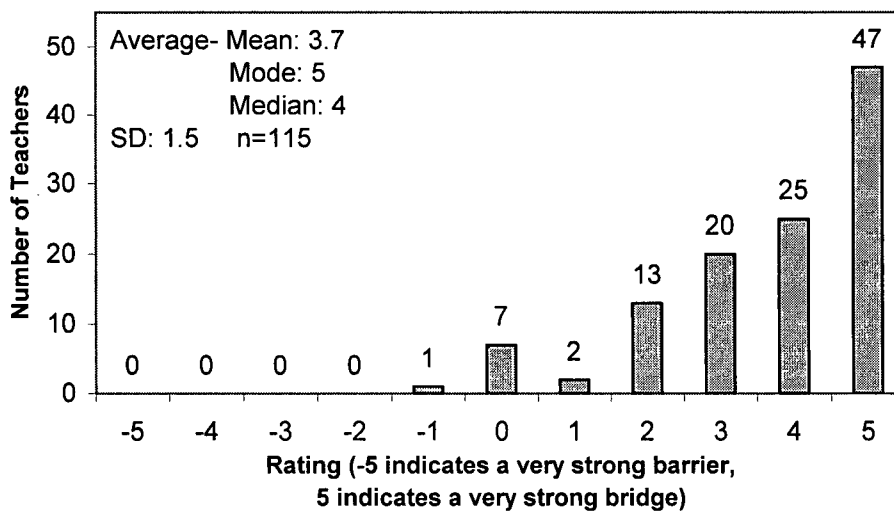


Figure 67. *Distribution of Teachers' Ratings of: Physical Health Gains as a Bridge or Barrier in Relation to Offering Outdoor Education*

Mental Health Gains (Figure 68) had a mean of +3.8, a mode of +5, a median of +4, and a standard deviation of 1.4 (n=114). It was rated a bridge to offering OE by 94% of teachers, while 6% gave a rating of 0.

Teachers recognize that OE can help bolster mental welfare: “excellent opportunities for promoting physical and mental health, well being” (Q54), “Healthy body leads to a healthy mind” (Q73), “Benefits students as a whole” (Q106), “break in routine makes rest of day better” (Q104). It also exhibits enduring positive affects: “Lasting positive impact on kids – ‘Remember in grade 7 when we ...’ from my friends” (Q9). Outdoor Education’s unique characteristics allow new personal perspectives for students: ”Students can learn more about themselves and others when on an outdoor experience” (Q124). OE activities encourage other positive mental strengths as well: “gain confidence from increased responsibility” (Q104), “The students gain so much confidence and self worth when they challenge themselves outside their comfort levels” (Q13). Teachers observe that OE creates a different context for students to feel positive: “students that don’t do well in a classroom may excel in the outdoor situation, and may do better socially, with an increase in confidence” (Q117), “Great for students who do not succeed in ‘traditional’ classroom setting” (Q103), “When kids try something new and are successful, they feel great! This can transfer back to the classroom” (Q99), “outdoor experiences / activities give students opportunities for showing strengths outside of the classroom” (Q114). It is expected that “Knowledge is going to change / develop attitudes” (Q75) during the experiences, which can create a healthier mindset in relation to the world students find themselves in: “making them more aware and respectful of their environment” (Q21), “Engenders life-long love of [nature]” (Q78), “respect for and sense of stewardship of our outdoor areas” (Q75). Teachers

view students' mental health benefiting from multiple facets of OE. Mental Health Gains stands as the second strongest bridge to Outdoor Education for teachers.

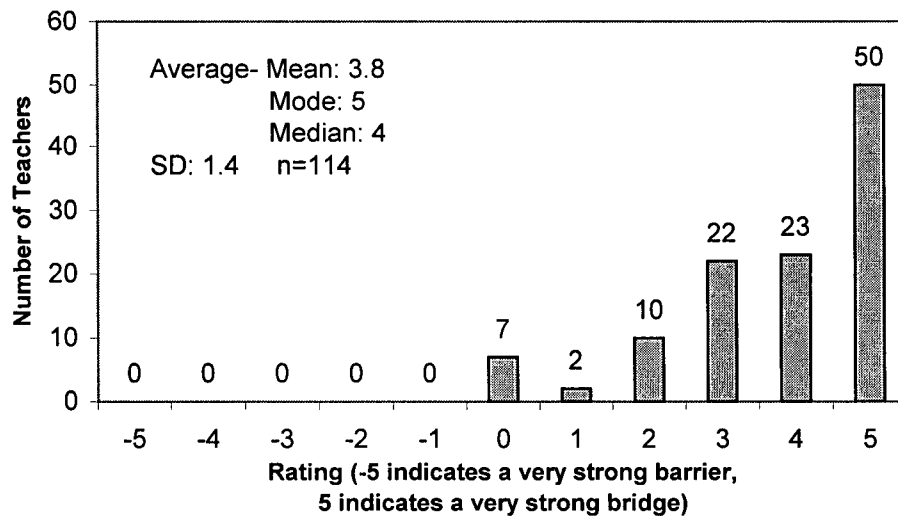


Figure 68. *Distribution of Teachers' Ratings of: Mental Health Gains as a Bridge or Barrier in Relation to Offering Outdoor Education*

Social Gains (Figure 69) had a mean of +4.1, a mode of +5, a median of +5, and a standard deviation of 1.3 (n=114). It was rated a bridge to offering OE by 97% of teachers, while 3% gave a rating of 0. No participant gave a negative rating.

Teachers are aware of great social gains from OE. They witness experiences uniting students: “kids tend to pull together as a group” (Q104), “kids bond” (126), “Student Bonding- New respect for each other” (Q87), “team building” (Q46), “bonding / trust, friendship, challenges, relationship, etc.” (Q1). Cultivated relationships between students and teachers are also noticed: “Students make new connections with teacher and classmates outside the classroom” (Q10), “Develops amazing connections between students: student ↔

student, student ↔ teacher, teacher ↔ teacher” (Q103). Teachers also distinguish the unique social gains of OE: “Amazing to see how kids interact with one another outside of the classroom. Will get kids helping each other who might not usually talk to each other. Encouraging one another and learning from each other” (Q99), “opportunity to recognize new strengths in each other as students” (Q2), “form new friendships” (Q2), “students to interact with peers that they would not normally involve themselves with” (Q9). The various social elements advanced prove numerous: “development of student leadership” (Q116), “co-op skills” (Q38), “development of a future support system among students” (Q116), “learn expected behaviours in the public / practice citizenship” (Q104). Although Social Gains is a complicated and multi-dimensional factor, one reality is clear- teachers see it as a bridge to Outdoor Education. Social Gains was rated the greatest bridge for teachers to offering Outdoor Education.

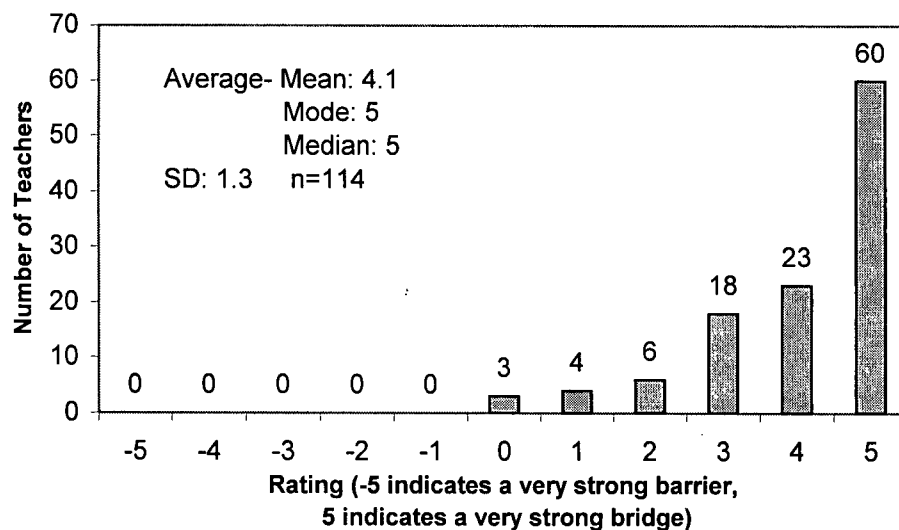


Figure 69. *Distribution of Teachers' Ratings of: Social Gains as a Bridge or Barrier in Relation to Offering Outdoor Education*

4.6 How Do Various Subgroups of Grade 4-7 Teachers Perceive Bridge and Barrier Factors Differently?

Average factor ratings of the various subgroups were compared to those of all participants as well as other subgroups. Subgroup ratings that varied greatly are discussed below.

4.6.1 Independent Subgroup Ratings Compared to All Participants

Figure 70 and Figure 71 show the average factor ratings of the Independent Subgroup and All Participants compared. Table 13 at the end of this section contains average ratings of all groups. As the sample size for the Independent Subgroup is relatively small ($n=11$), variations in the averages are only of a descriptive nature and a larger sample is needed to attain statistically significant differences. Still certain large differences indicate factors that may be a result of the different teaching context in an independent school. Those ratings that fluctuate more than one rating point from the sample average are included in Table 8.

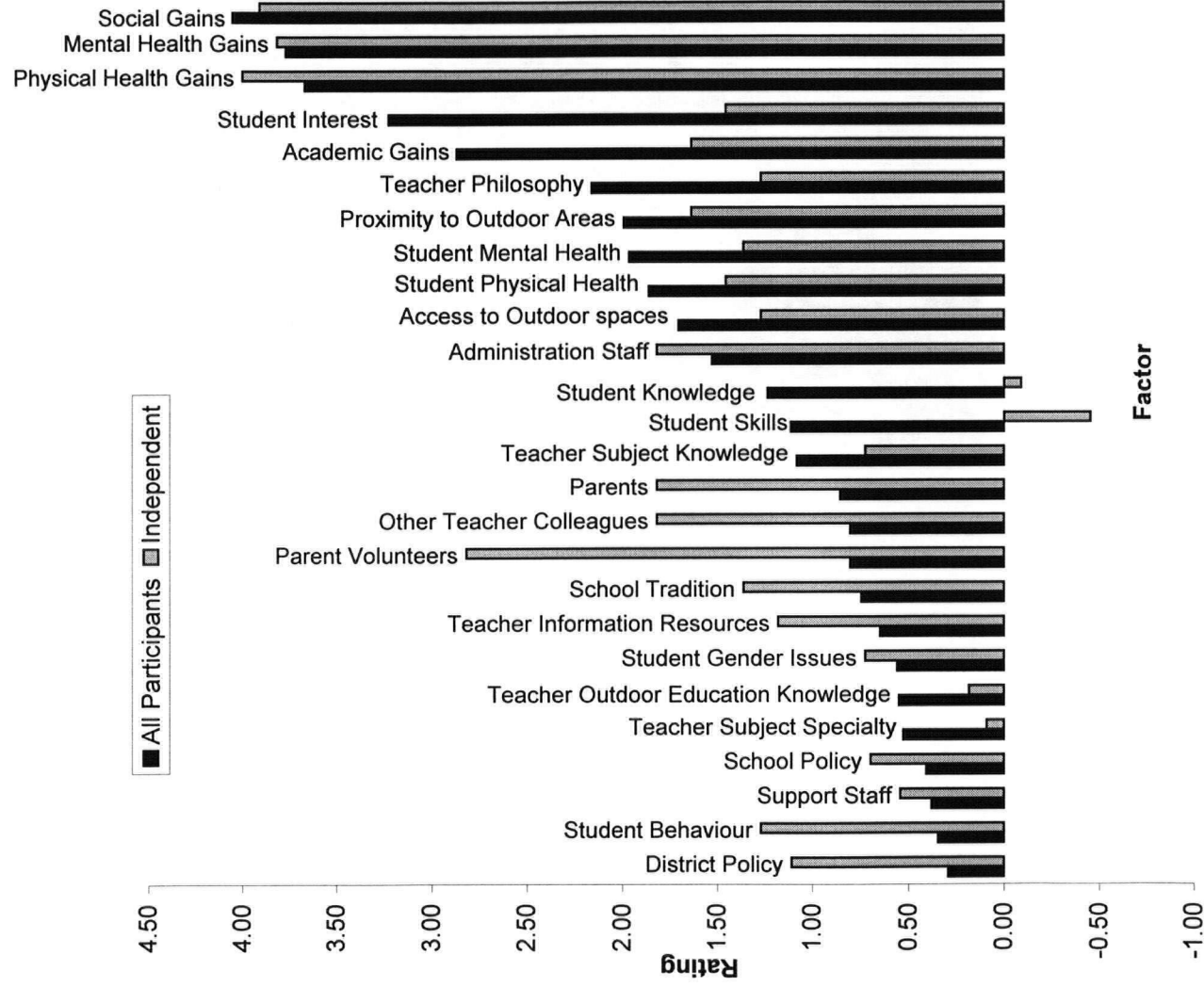


Figure 70. Average Bridge Factor Ratings by the Independent Subgroup and All Participants

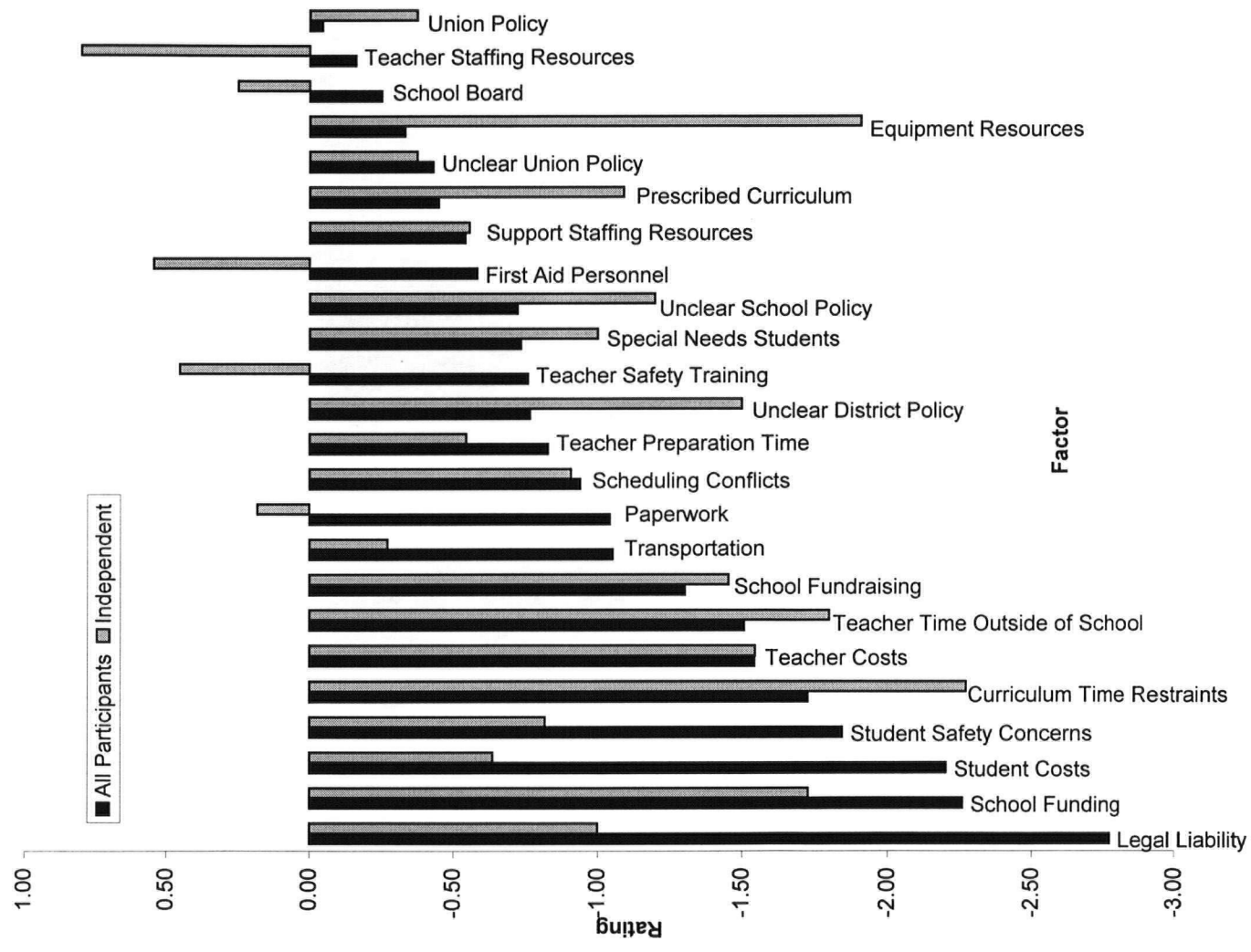


Figure 71. Average Barrier Factor Ratings by the Independent Subgroup and All Participants

Table 8.

Independent Subgroup Variations

	All Participants (n=120)	Independent Subgroup (n=11)	Difference of Average Ratings
Parent Volunteers	0.81	2.82	-2.01
Legal Liability	-2.77	-1.00	-1.77
Student Costs	-2.20	-0.64	-1.57
Paperwork	-1.04	0.18	-1.22
Teacher Safety Training	-0.76	0.45	-1.21
First Aid Personnel	-0.58	0.55	-1.13
Student Safety Concerns	-1.84	-0.82	-1.03
Other Teacher Colleagues	0.81	1.82	-1.01
Student Knowledge	1.24	-0.09	1.33
Student Skills	1.11	-0.45	1.57
Equipment Resources	-0.33	-1.91	1.58
Student Interest	3.23	1.45	1.77

4.6.2 #44 North Vancouver School District Subgroup Compared to All Participants

Figure 72 and Figure 73 show the average factor ratings of the #44 North Vancouver Subgroup and the sample average compared. Table 13 at the end of this section contains average ratings of all groups. As the sample size for the #44 North Vancouver Subgroup is relatively small ($n=10$), variations in the averages are only of a descriptive nature and a larger sample is needed to attain statistically significant differences. Still certain large differences indicate factors that may be a result of the different teaching context in School District #44 with its North Vancouver Outdoor School. Those ratings that fluctuate more than one rating point from the sample average are included in Table 9.

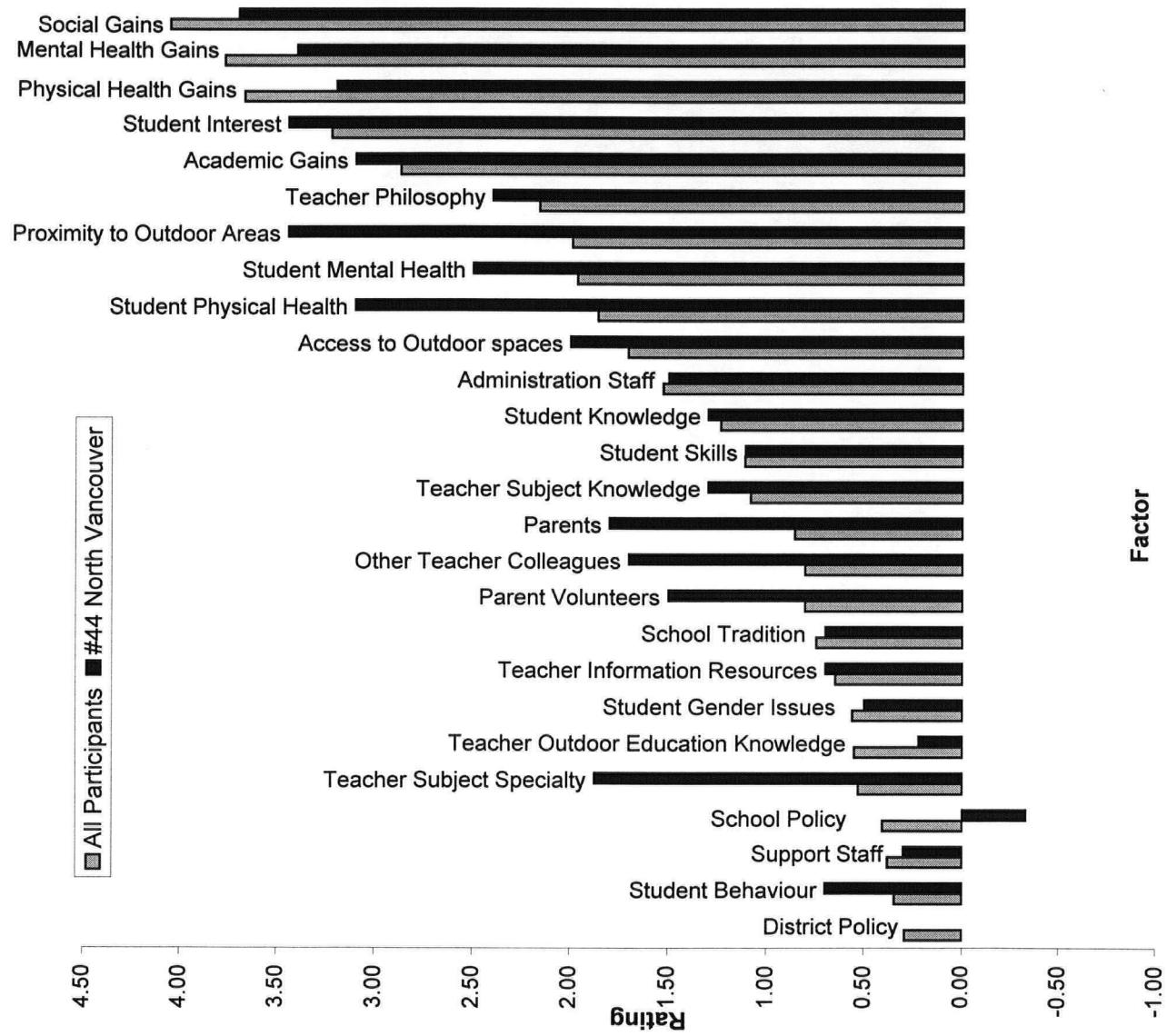


Figure 72. Average Bridge Factor Ratings by #44 North Vancouver Subgroup and All

Participants

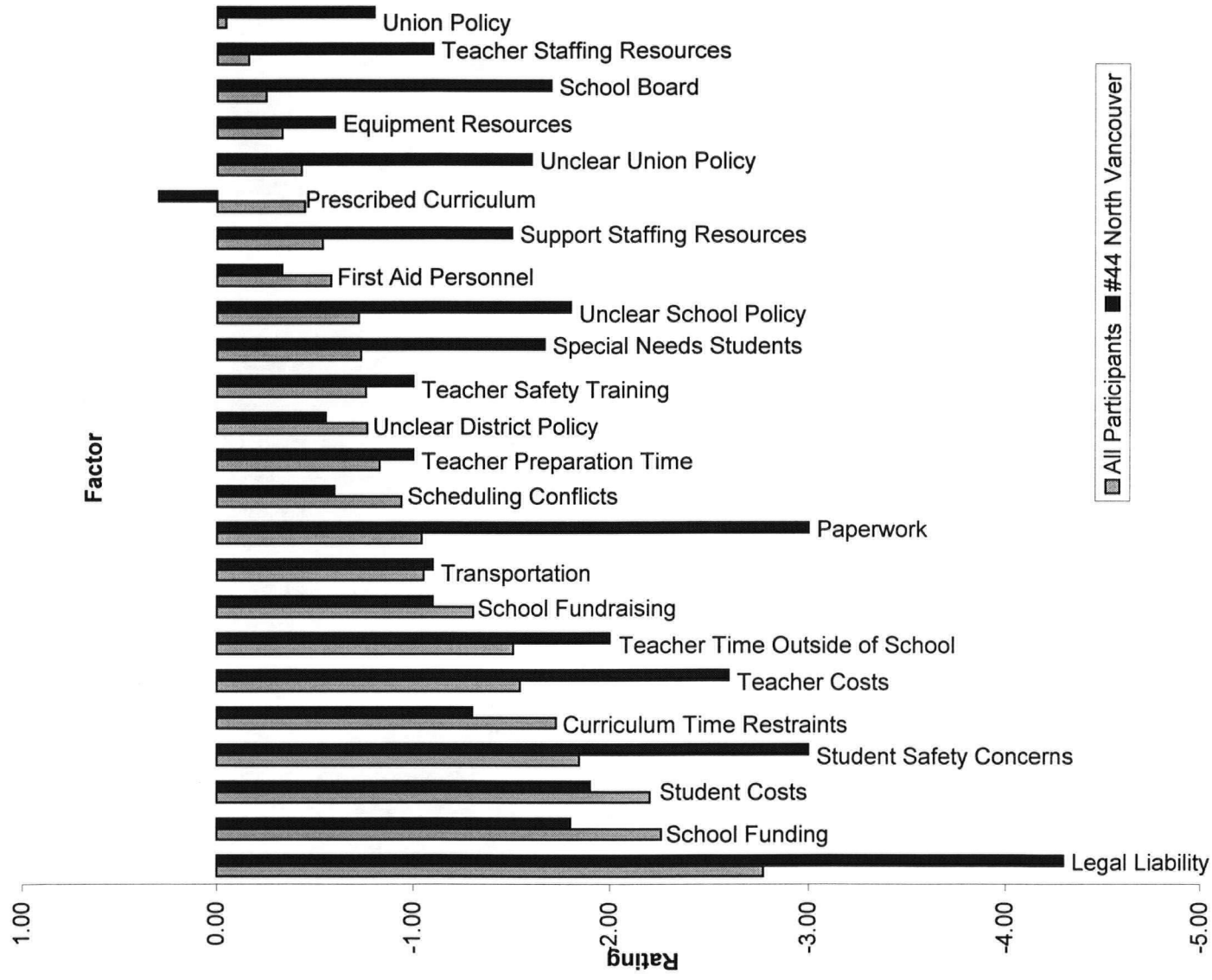


Figure 73. Average Barrier Factor Ratings by #44 North Vancouver and All Participants

Table 9.

#44 North Vancouver Subgroup Variations

	All Participants (n=120)	#44 North Vancouver (n=10)	Difference of Average Ratings
Proximity to Outdoor Areas	1.99	3.44	-1.45
Teacher Subject Specialty	0.53	1.88	-1.35
Student Physical Health	1.86	3.10	-1.24
Teacher Costs	-1.54	-2.60	1.06
Unclear School Policy	-0.72	-1.80	1.08
Student Safety Concerns	-1.84	-3.00	1.16
Unclear Union Policy	-0.43	-1.60	1.17
School Board	-0.25	-1.70	1.45
Legal Liability	-2.77	-4.30	1.53
Paperwork	-1.04	-3.00	1.96

4.6.3 GVRD and Non-GVRD Subgroups Compared

Figure 74 and Figure 75 show the average factor ratings of the GVRD Subgroup and the Non-GVRD Subgroup compared. Table 13 at the end of this section contains average ratings of all groups. The sample sizes for the subgroups are: GVRD n=72, Non-GVRD n=36. They give a more accurate account of the populations they represent than the previous subgroups. Large differences in average ratings may indicate factors that may be a result of the different teaching contexts in metropolitan and non-metropolitan schools. Those ratings that fluctuate more than half a rating point from the other subgroup are included in Table 10.

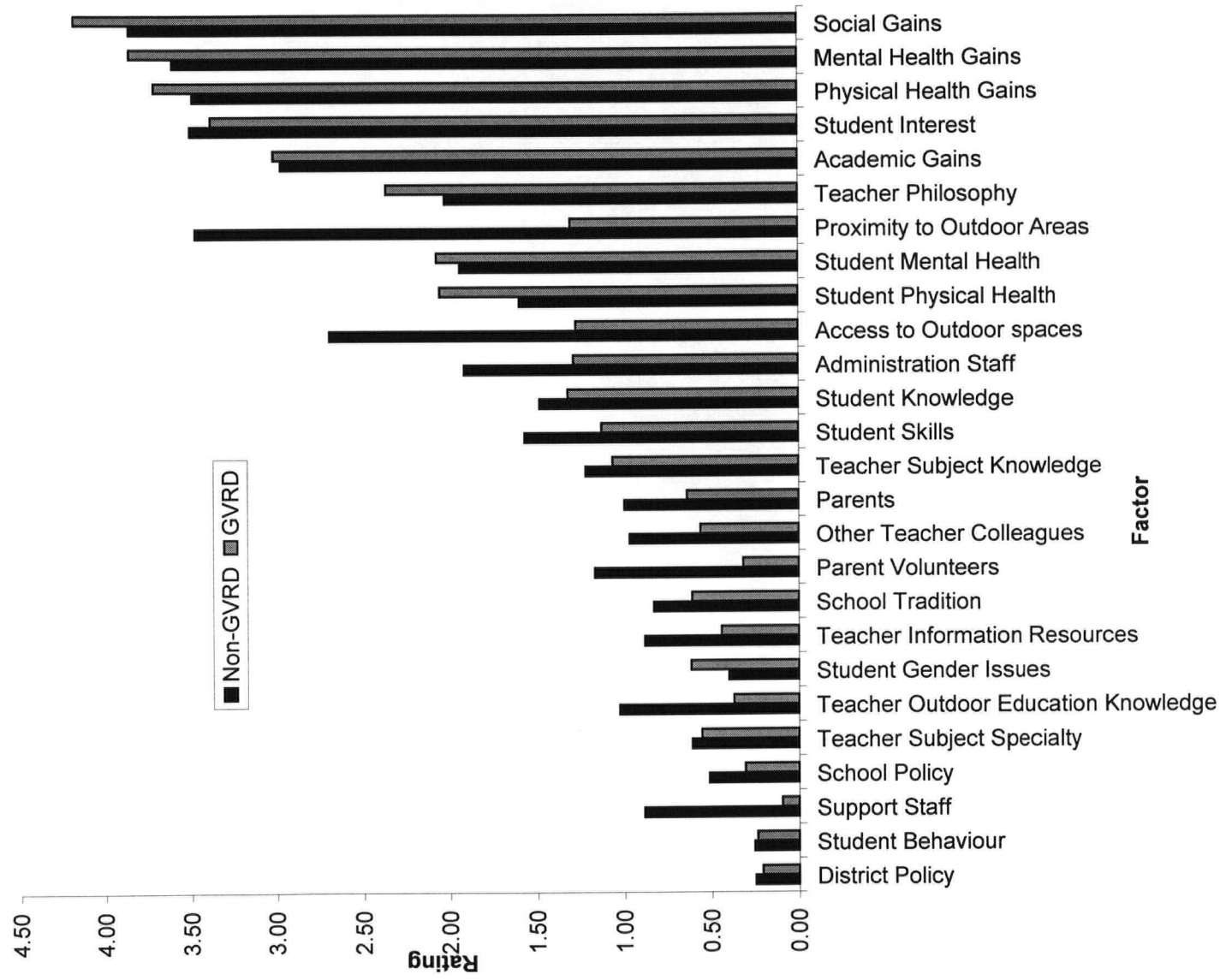


Figure 74. Average Bridge Factor Ratings by GVRD and Non-GVRD Subgroups

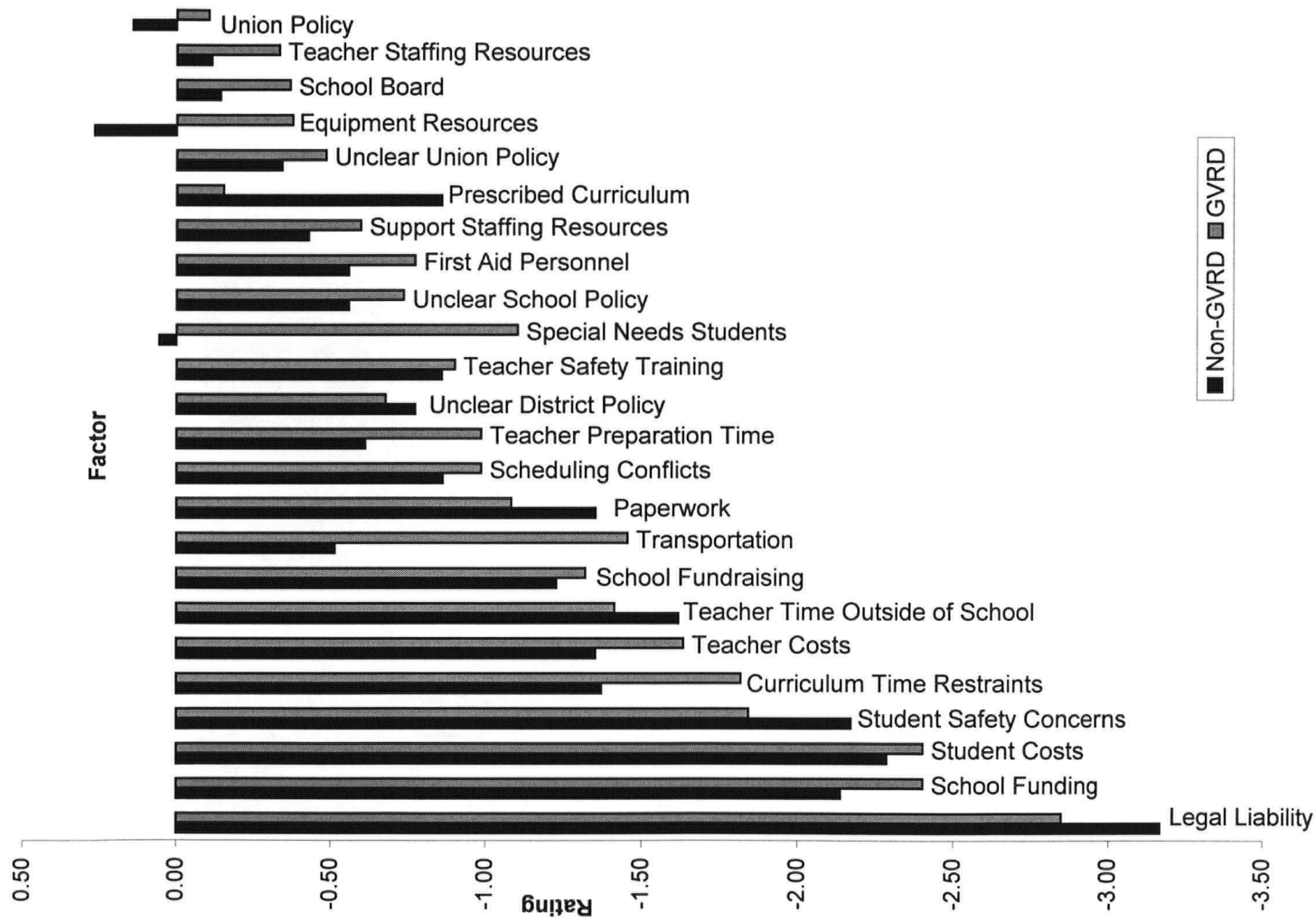


Figure 75. Average Barrier Factor Ratings by GVRD and Non-GVRD Subgroups

Table 10

GVRD and Non-GVRD Subgroup Variations

	GVRD (n=72)	Non-GVRD (n=36)	Difference of Average Ratings
Proximity to Outdoor Areas	1.31	3.47	-2.16
Access to Outdoor spaces	1.28	2.69	-1.42
Special Needs Students	-1.10	0.06	-1.16
Transportation	-1.46	-0.51	-0.94
Parent Volunteers	0.32	1.17	-0.85
Support Staff	0.10	0.89	-0.79
Teacher Outdoor Education Knowledge	0.37	1.03	-0.66
Equipment Resources	-0.38	0.26	-0.64
Administration Staff	1.29	1.92	-0.63
Teacher Subject Specialty	0.56	0.61	-0.05
Prescribed Curriculum	-0.15	-0.86	0.704

4.6.4 Grade Level Subgroups Compared

Figure 76 and Figure 77 show the average factor ratings of the four grade level subgroups compared. Table 13 at the end of this section contains average ratings of all groups. The sample sizes for the grades are: Grade 4 $n=37$, Grade 5 $n=39$, Grade 6 $n=55$, Grade 7 $n=46$. Large differences in average factor ratings may indicate factors that may be a result of the different teaching contexts in the various grades. Those ratings that fluctuate more than half a rating point from Grade 4 to Grade 7 are included in Table 11.

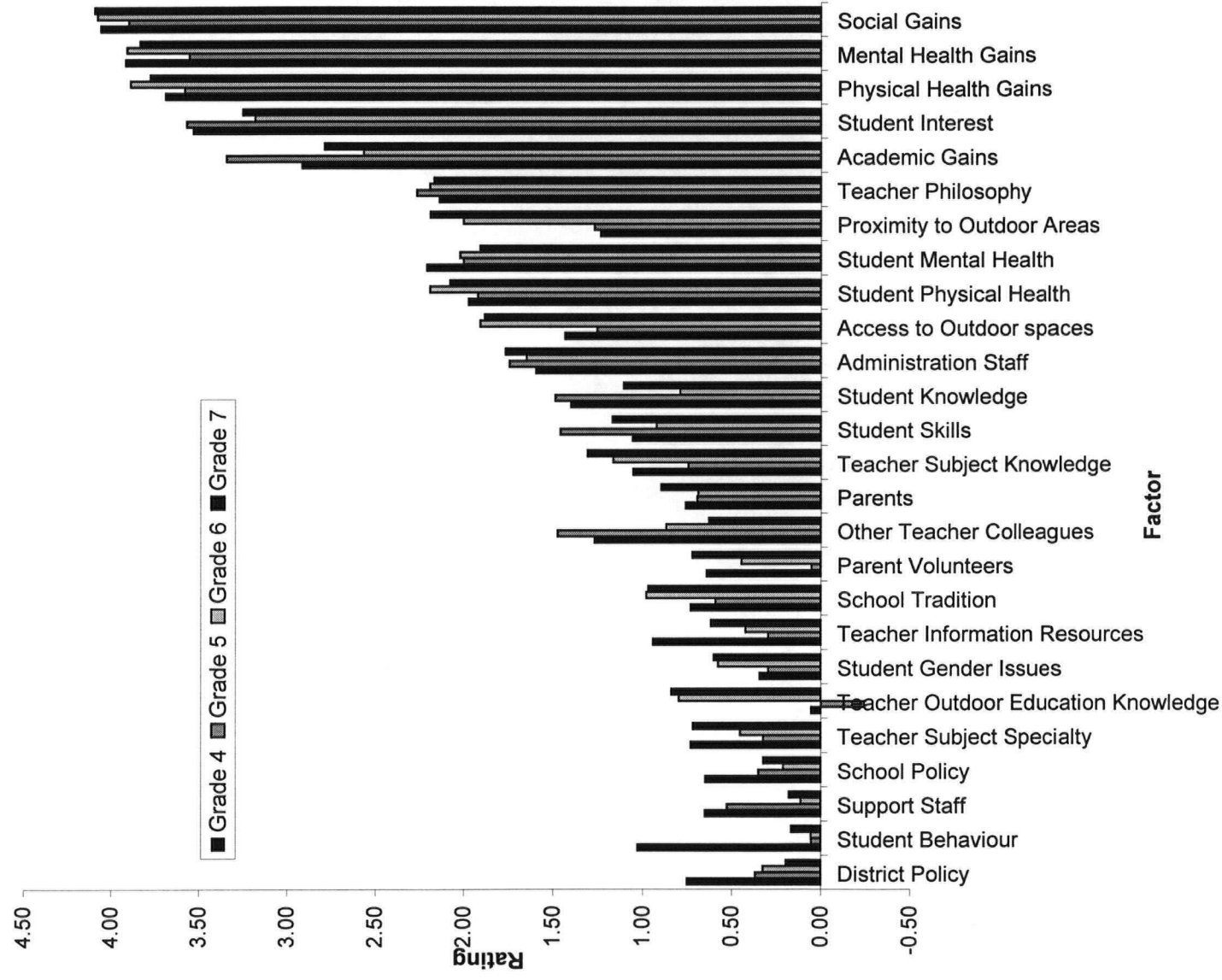


Figure 76. Average Bridge Factor Ratings by Grade Subgroups

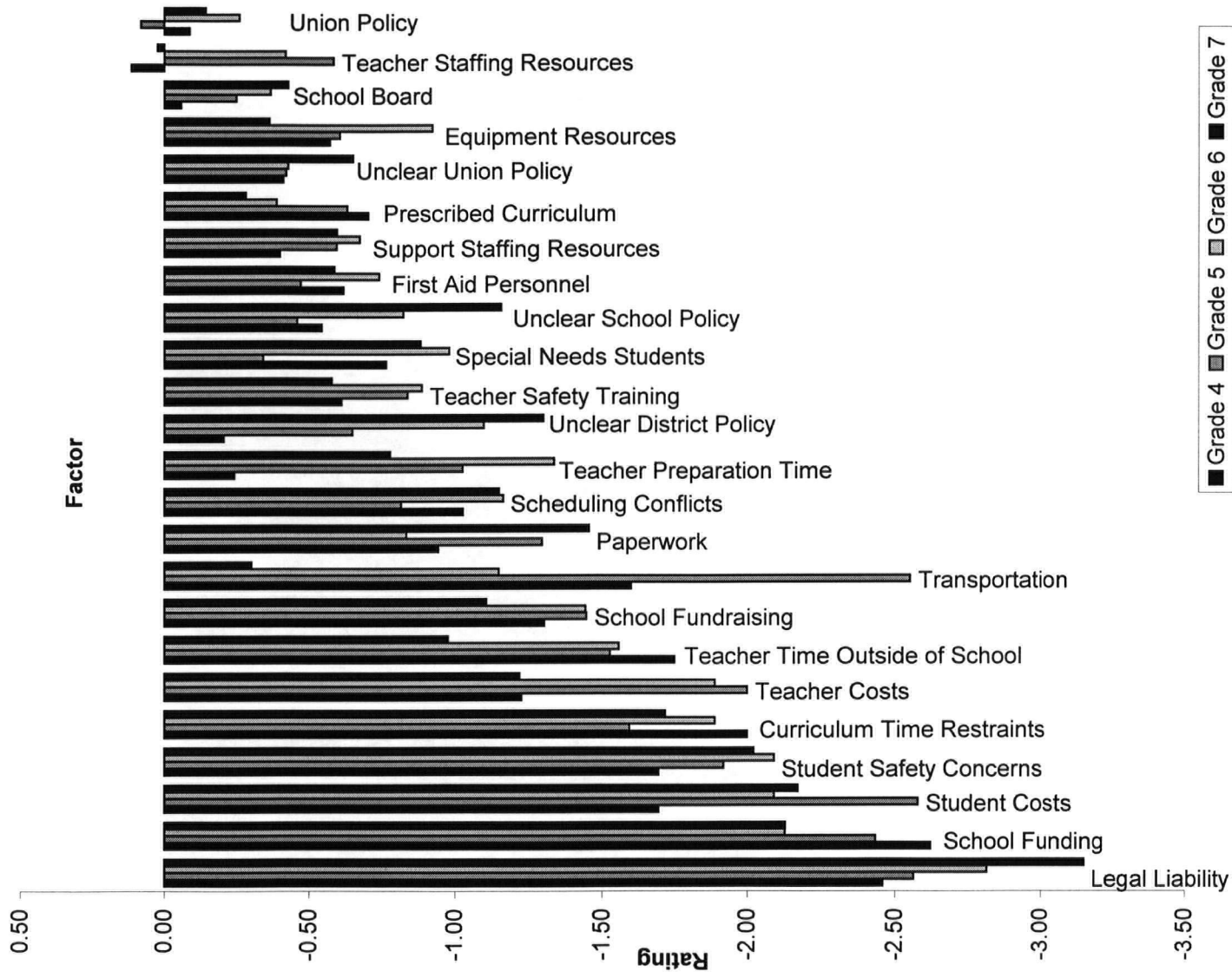


Figure 77. Average Barrier Factor Ratings by Grade Subgroups

Table 11

Grade Level Subgroup Variations

	Grade 4	Grade 7	Difference of Average Ratings
Transportation	-1.60	-0.30	-1.30
Teacher Outdoor Education Knowledge	0.05	1.35	-1.29
Proximity to Outdoor Areas	1.24	2.36	-1.13
Teacher Time Outside of School	-1.75	-0.98	-0.77
Teacher Subject Knowledge	1.05	1.74	-0.69
Paperwork	-0.94	-1.46	0.51
Teacher Preparation Time	-0.24	-0.78	0.53
School Policy	0.65	0.09	0.56
Unclear School Policy	-0.54	-1.16	0.62
Legal Liability	-2.46	-3.15	0.69
Other Teacher Colleagues	1.27	0.52	0.75
District Policy	0.75	-0.33	1.08
Unclear District Policy	-0.21	-1.30	1.10

4.6.5 Low, Medium and High OE Offering Subgroups Compared

Figure 78 and Figure 79 show the average factor ratings compared of the three defined Level of OE Offering Subgroups. Table 13 at the end of this section contains average ratings of all groups. The sample sizes for each level are: Low n=54, Medium n=36, High n=27. Many factor ratings show a trend of being less of a bridge and more of a barrier for those offering less OE. This is also shown in Figure 80 *Average Combined Ratings* that shows the average of bridge and barrier ratings of all factors combined for Low, Medium and High OE Levels. Large discrepancies in average factor ratings may point to perceived factors which more strongly affect teachers' decisions to offer Outdoor Education experiences or not. They may also evidence a change in perception due to having offered more OE. Those ratings that fluctuate more than one rating point from Low to High OE Offering are included in Table 12.

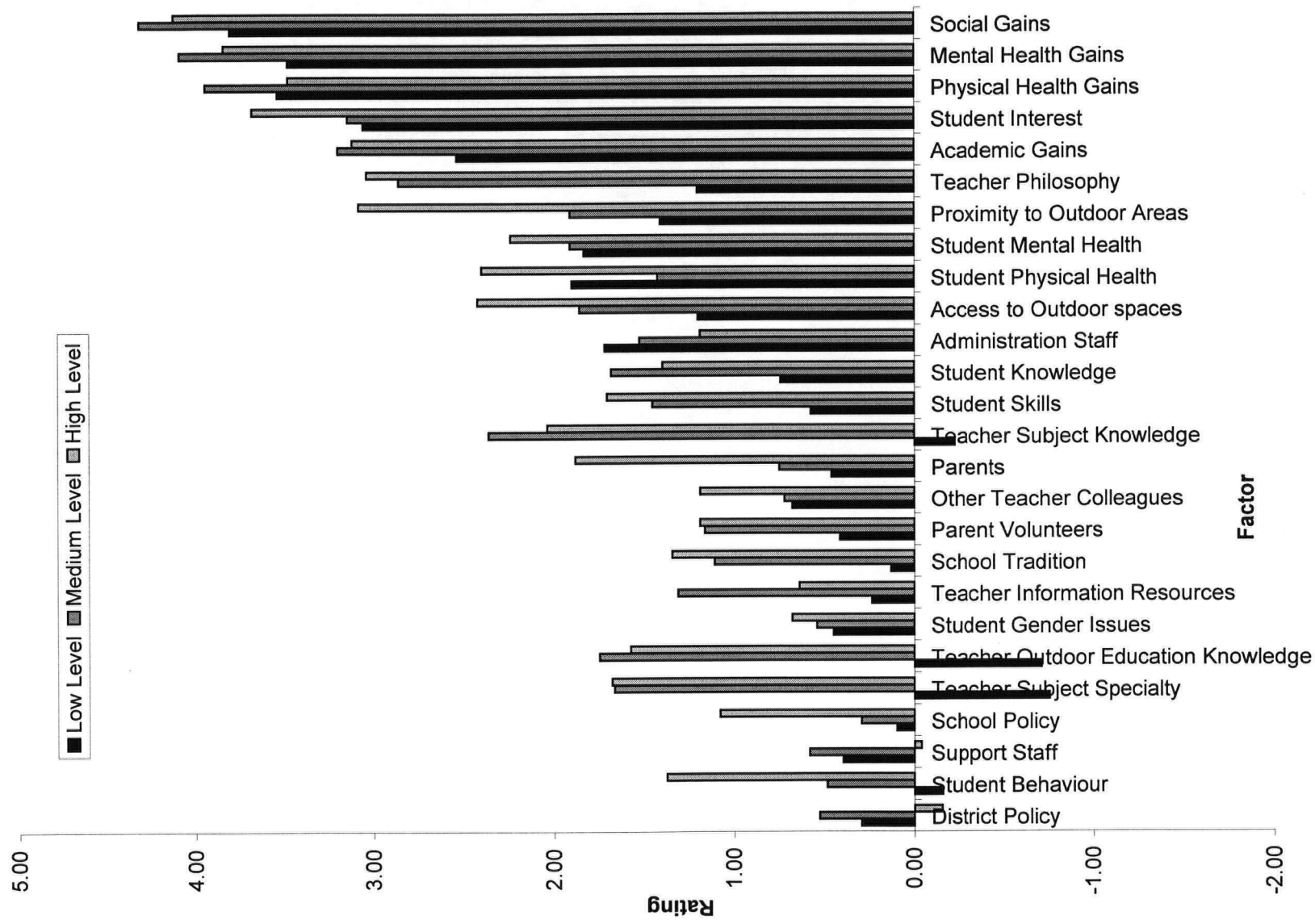


Figure 78. Average Bridge Factor Ratings by Low, Medium and High OE Subgroups

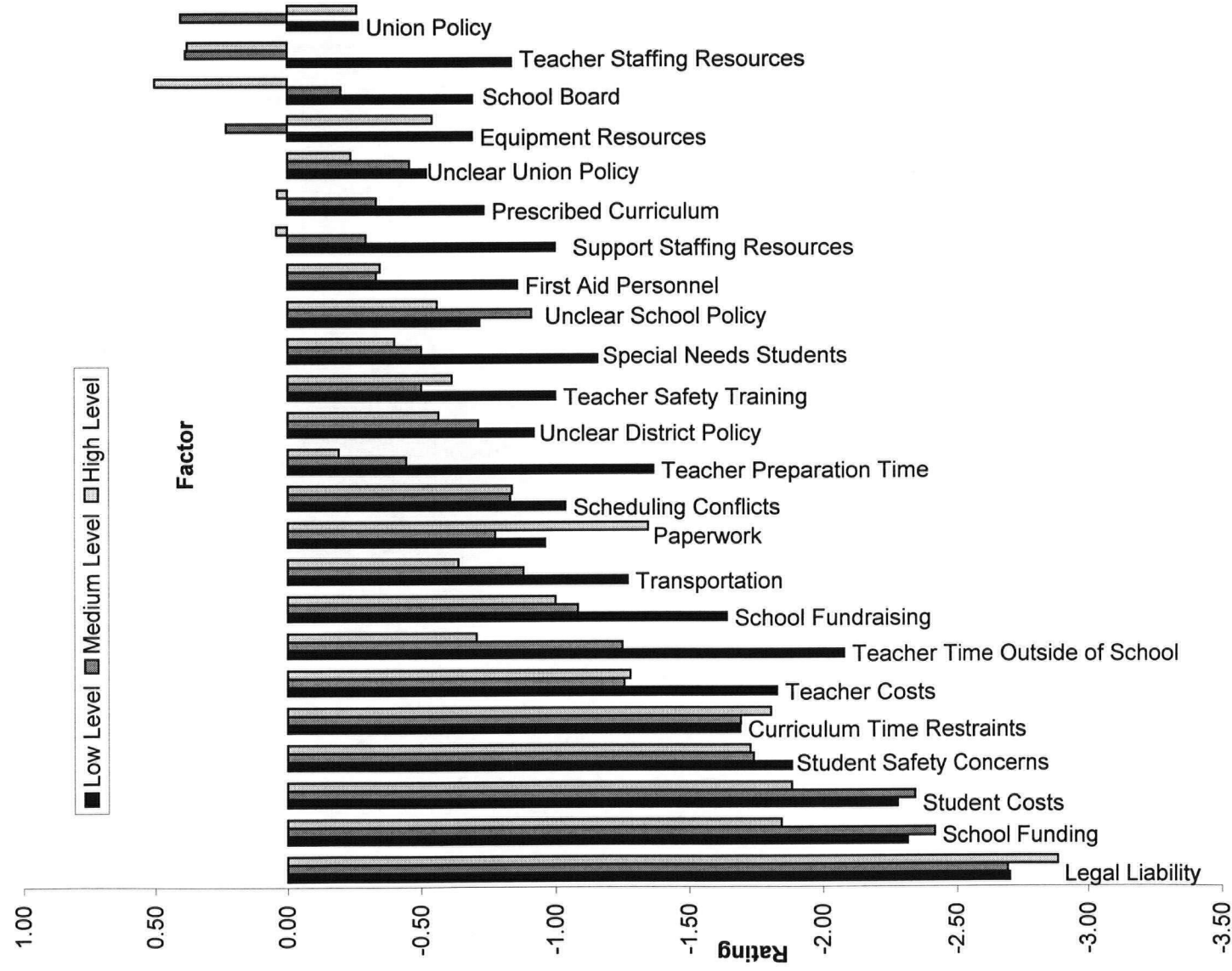


Figure 79. Average Barrier Factor Ratings by Low, Medium and High OE Subgroups

Table 12

Low, Medium and High OE Subgroup Variations

	Low Level	Medium Level	High Level	Difference of Low and High Average Ratings
Teacher Subject Specialty	-0.75	1.67	1.68	-2.43
Teacher Outdoor Education Knowledge	-0.71	1.75	1.58	-2.29
Teacher Subject Knowledge	-0.22	2.36	2.04	-2.26
Teacher Philosophy	1.21	2.86	3.04	-1.83
Proximity to Outdoor Areas	1.41	1.91	3.08	-1.67
Student Behaviour	-0.16	0.49	1.38	-1.53
Parents	0.46	0.75	1.88	-1.42
Teacher Time Outside of School	-2.08	-1.25	-0.71	-1.37
Teacher Staffing Resources	-0.84	0.38	0.38	-1.22
School Tradition	0.13	1.11	1.35	-1.22
Access to Outdoor spaces	1.20	1.86	2.42	-1.22
School Board	-0.69	-0.20	0.50	-1.19
Teacher Preparation Time	-1.37	-0.44	-0.19	-1.17
Student Skills	0.58	1.46	1.71	-1.13
Support Staffing Resources	-1.00	-0.29	0.04	-1.04

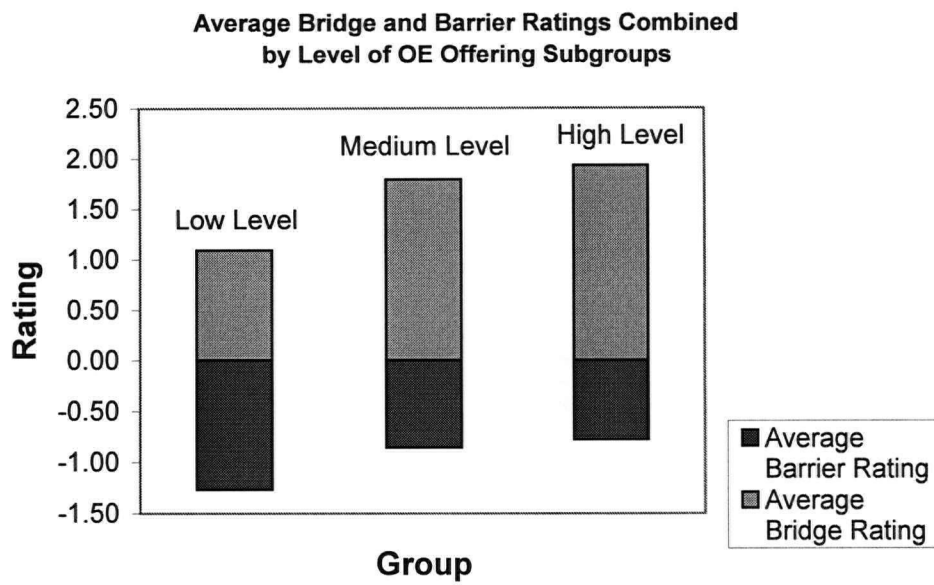


Figure 80. *Average Bridge Rating and Average Barrier Rating by Low, Medium and High OE Subgroups*

Table 13
All Subgroup Variations

Table 13 All Subgroup Variations																									
	n	Legal Liability	School Funding	Student Costs	Student Safety Concerns	Curriculum Time Restraints	Teacher Costs	Teacher Time Outside of School	School Fundraising	Transportation	Paperwork	Scheduling Conflicts	Teacher Preparation Time	Unclear District Policy	Teacher Safety Training	Special Needs Students	Unclear School Policy	First Aid Personnel	Support Staffing Resources	Prescribed Curriculum	Unclear Union Policy	Equipment Resources	School Board	Teacher Staffing Resources	Union Policy
	120	-2.77	-2.26	-2.20	-1.84	-1.73	-1.54	-1.51	-1.31	-1.05	-1.04	-0.94	-0.83	-0.77	-0.76	-0.73	-0.72	-0.58	-0.54	-0.45	-0.43	-0.33	-0.25	-0.16	-0.05
	37	-2.46	-2.62	-1.69	-1.69	-2.00	-1.23	-1.75	-1.31	-1.60	-0.94	-1.03	-0.24	-0.21	-0.61	-0.76	-0.54	-0.62	-0.40	-0.70	-0.41	-0.57	-0.06	0.11	-0.09
	39	-2.56	-2.44	-2.58	-1.92	-1.59	-2.00	-1.53	-1.45	-2.55	-1.30	-0.82	-1.03	-0.65	-0.84	-0.34	-0.46	-0.47	-0.59	-0.63	-0.42	-0.61	-0.25	-0.58	0.08
	55	-2.81	-2.13	-2.09	-2.09	-1.89	-1.89	-1.56	-1.44	-1.15	-0.83	-1.17	-1.34	-1.10	-0.89	-0.98	-0.82	-0.74	-0.67	-0.38	-0.92	-0.37	-0.42	-0.26	
	46	-3.15	-2.13	-2.17	-2.02	-1.72	-1.22	-0.98	-1.11	-0.30	-1.46	-1.15	-0.78	-1.30	-0.58	-0.88	-1.16	-0.59	-0.60	-0.28	-0.65	-0.36	-0.43	0.02	-0.14
	69	-3.01	-2.04	-2.28	-2.12	-1.68	-1.45	-1.26	-1.34	-0.74	-1.12	-1.12	-0.99	-1.13	-0.78	-0.75	-0.95	-0.74	-0.50	-0.19	-0.49	-0.38	-0.29	-0.03	-0.16
	36	-3.17	-2.14	-2.29	-2.17	-1.37	-1.35	-1.62	-1.23	-0.51	-1.35	-0.86	-0.61	-0.77	-0.86	-0.66	-0.56	-0.56	-0.43	-0.86	-0.34	-0.26	-0.14	-0.11	0.14
	72	-2.85	-2.40	-2.40	-1.84	-1.82	-1.63	-1.41	-1.32	-1.46	-1.08	-0.99	-0.99	-0.68	-0.90	-1.10	-0.74	-0.77	-0.60	-0.15	-0.48	-0.38	-0.37	-0.33	-0.10
	11	-1.00	-1.73	-0.64	-0.82	-2.27	-1.55	-1.80	-1.45	-0.27	0.18	-0.91	-0.55	-1.50	0.45	-1.00	-1.20	0.55	-0.56	-1.09	-0.38	-1.91	0.25	0.80	-0.38
	10	-4.30	-1.80	-1.90	-3.00	-1.30	-2.60	-2.00	-1.10	-1.10	-3.00	-0.60	-1.00	-0.56	-1.00	-1.67	-1.80	-0.33	-1.50	0.30	-1.60	-0.60	-1.70	-1.10	-0.80
	14	-3.64	-3.14	-2.29	-2.86	-2.43	-1.64	-0.46	-2.21	-1.15	-0.79	-1.62	-1.36	-0.33	-1.14	-0.38	-0.33	-0.93	-0.17	-1.00	-0.17	-0.54	0.31	0.17	-0.08
	41	-2.85	-1.88	-2.15	-1.80	-2.00	-1.25	-1.03	-0.51	-0.35	-1.59	-0.80	-0.38	-0.97	-0.41	-0.54	-0.98	-0.49	-0.23	-0.17	-0.58	-0.20	0.13	-0.10	0.13
	42	-2.78	-1.95	-2.03	-1.51	-1.56	-0.90	-0.48	-1.17	-1.45	-1.32	-1.00	0.20	-0.46	-0.54	-0.37	-0.67	-0.49	0.03	0.12	-0.34	-0.53	0.16	0.63	0.08
	54	-2.70	-2.31	-2.28	-1.88	-1.69	-1.83	-2.08	-1.64	-1.27	-0.96	-1.04	-1.37	-0.92	-1.00	-1.16	-0.72	-0.86	-1.00	-0.74	-0.52	-0.69	-0.69	-0.84	-0.27
	36	-2.69	-2.42	-2.34	-1.74	-1.69	-1.26	-1.25	-1.08	-0.88	-0.78	-0.83	-0.44	-0.71	-0.50	-0.50	-0.91	-0.33	-0.29	-0.33	-0.46	0.23	-0.20	0.38	0.40
	27	-2.88	-1.85	-1.88	-1.73	-1.81	-1.28	-0.71	-1.00	-0.64	-1.35	-0.84	-0.19	-0.57	-0.62	-0.40	-0.56	-0.35	0.04	0.04	-0.24	-0.54	0.50	0.38	-0.26

	n	District Policy	Student Behaviour	Support Staff	School Policy	Teacher Subject Specialty	Teacher Outdoor Education Knowledge	Student Gender Issues	Teacher Information Resources	School Tradition	Parent Volunteers	Other Teacher Colleagues	Parents	Teacher Subject Knowledge	Student Skills	Student Knowledge	Administration Staff	Access to Outdoor spaces	Student Physical Health	Student Mental Health	Proximity to Outdoor Areas	Teacher Philosophy	Academic Gains	Student Interest	Physical Health Gains	Mental Health Gains	Social Gains	Average Ratings Combined		
	120	0.29	0.35	0.38	0.41	0.53	0.55	0.56	0.65	0.65	0.75	0.81	0.81	0.86	1.08	1.11	1.24	1.53	1.71	1.86	1.96	1.99	2.16	2.87	3.23	3.67	3.77	4.05	0.287	
	37	0.75	1.03	0.65	0.65	0.73	0.05	0.34	0.94	0.73	0.64	1.27	0.76	1.05	1.06	1.06	1.40	1.59	1.43	1.97	2.21	1.24	2.14	2.91	3.53	3.69	3.91	4.06	0.346	
	39	0.37	0.05	0.53	0.35	0.32	-0.24	0.30	0.30	0.59	0.05	1.47	0.69	0.74	1.46	1.49	1.74	1.26	1.92	2.00	1.27	2.26	3.34	3.57	3.58	3.55	3.89	0.187		
	55	0.33	0.06	0.11	0.21	0.45	0.80	0.58	0.42	0.98	0.44	0.87	0.69	1.17	0.92	0.79	1.65	1.91	2.19	2.02	2.00	2.19	2.57	3.18	3.89	3.91	4.08	0.2		
	46	-0.33	0.57	0.17	0.09	1.02	1.35	0.57	0.95	1.11	1.07	0.52	1.00	1.74	1.00	1.05	1.57	1.91	2.00	2.02	2.36	2.39	2.82	3.07	3.89	3.91	4.16	0.337		
	69	0.20	0.17	0.18	0.32	0.72	0.84	0.60	0.82	0.97	0.72	0.63	0.90	1.31	1.17	1.11	1.76	1.88	2.08	1.91	2.18	2.16	2.79	3.25	3.77	3.83	4.09	0.292		
	36	0.25	0.26	0.89	0.51	0.61	1.03	0.40	0.89	0.83	1.17	0.97	1.00	1.22	1.57	1.49	1.92	2.69	1.60	1.94	3.47	2.03	2.97	3.50	3.49	3.60	3.85	0.428		
	72	0.21	0.24	0.10	0.31	0.56	0.37	0.62	0.44	0.32	0.56	0.64	1.07	1.13	1.32	1.29	1.28	2.06	2.07	1.91	2.31	2.37	3.01	3.38	3.71	3.85	4.17	0.204		
	11	1.11	1.27	0.55	0.70	0.09	0.18	0.73	1.18	1.36	2.82	1.82	1.82	1.82	0.73	-0.45	-0.09	1.82	1.27	1.45	1.36	1.64	1.27	1.64	1.45	4.00	3.82	3.91	0.374	
	10	0.00	0.70	0.30	-0.33	1.88	0.22	0.50	0.70	0.21	1.50	1.70	1.80	1.30	1.11	1.30	1.50	2.00	3.10	2.50	3.44	2.40	3.10	3.44	3.20	3.40	3.70	0.182		
	14	-0.29	1.25	0.00	0.69	1.15	0.57	0.69	1.00	0.71	1.29	0.71	1.57	1.50	1.33	1.00	0.50	2.21	2.00	2.31	2.67	2.50	3.38	4.08	4.38	4.54	4.54	0.353		
	41	-0.12	0.80	0.00	0.69	1.88	1.66	0.58	0.80	1.34	1.07	0.63	1.41	2.41	1.69	1.63	1.39	1.83	2.30	2.15	2.56	3.00	3.20	3.50	3.73	3.78	4.10	0.536		
	42	0.29	1.03	0.54	0.71	2.00	2.02	0.67	0.97	1.49	1.07	1.41	1.10	2.49	1.61	1.72	1.59	2.73	1.92	2.13	2.63	3.05	3.28	3.63	3.54	3.89	4.21	0.662		
	54	0.29	-0.16	0.40	0.10	-0.75	-0.71	-0.45	0.24	0.13	0.42	0.68	0.46	-0.22	0.58	0.75	1.72	1.20	1.90	1.84	1.41	1.21	2.54	3.06	3.54	3.48	3.80	-0.04		
	36	0.53	0.49	0.58	0.29	1.67	1.75	0.54	1.31	1.11	1.17	0.72	0.75	2.36	1.46	1.69	1.53	1.86	1.43	1.91	1.91	2.86	3.20	3.15	3.94	4.09	4.31	0.519		
	27	-0.15	1.38	-0.04	1.08	1.68	1.58	0.68	0.64	1.35	1.19	1.19	1.88	2.04	1.71	1.40	1.19	2.42	2.40	2.24	3.08	3.04	3.12	3.68	3.48	3.84	4.12	0.63		

4.7 Results from the *Strongest Two Bridges and Barriers Section*

Responses from the Strongest Two Bridges and Barriers section were collated to create a list of all bridges and barriers given in this section. Some responses were variations of factors on the questionnaire and were treated as the respective factor (e.g. “lack of time to prepare” (Q3) was treated as *Teacher Preparation Time*, and “Location” (Q30) as *Proximity to Outdoor Areas*). Some new, more general factors were also created to categorize similar answers given. These included: *Time*- teachers mentioned time issues in multiple ways (e.g. “Time” (Q18), “time constraints” (Q58), “Time pressures” (Q99)), *Funding*- teachers mentioned multiple facets of funding and used various phraseology (e.g. “Expense” (Q22), “Funding / Cost of Outdoor Camp” (Q31), “financial resources” (Q77)), and *Student Benefits*- some teachers identified benefits generally without a specific type (e.g. “Benefit to students” (Q87), “Good for kids” (Q120), “Benefits to the students” (Q31)). Some of the responses did not match directly with other factors and were therefore left as written.

Table 14 lists factors specified as teachers’ strongest two barriers. The number of times a factor was identified as the strongest or second strongest barrier is indicated in the columns left of the factor. Related factors were placed near each other, but generally the list is in random order.

The more frequent factors are, without surprise, also those with the lowest average means. Legal liability, issues of funding and time prove again to be of greatest concern. It is at the same time interesting to note that there is a wide array of strongest barriers among teachers.

Table 14

List of Individuals' Strongest Two Barriers

Strongest Barrier	2nd Strongest Barrier	Barrier Factor	Strongest Barrier	2nd Strongest Barrier	Barrier Factor
22	16	Legal Liability		1	Staffing / parent support
1	5	Student Safety Concerns		1	parents/support staff availability
	1	Teacher Safety Training	1		Lack of Support
25	11	Student costs		3	Teacher colleagues
18	3	Funding	4		District Policy
1	3	School Fundraising		1	School Policy
1	1	Teacher Costs	2	1	Information Resources
5	2	Implementation Time		1	Resources- equipment, transport,
3	9	Teacher Preparation Time		1	Teacher Information Resources and Prescribed Curriculum
1		Prep Time and Implementation Time	2	1	Equipment
8	15	Curriculum Time Constraints		2	student interest
2	2	Schedule Conflicts	1		Weather
4	1	Time	1		Union Policy
4	5	Parents		1	Unclear Union Policy
	2	Parent volunteers		1	Outdoor School Attitude
4	4	Transportation		1	Special Needs Students
3	1	Teacher Knowledge		1	First Aid Personnel
	1	Teacher Knowledge of OE		1	Evaluation
2	3	Student Behaviour		1	Burnout
1	4	Paperwork		1	Lack of clear purpose
	2	Support Staff		1	Teacher Philosophy
1		Staff resources			
	1	Staffing resources	117	112	Total

Table 15 lists factors specified as teachers' strongest two bridges. The number of times a factor was identified as the strongest or second strongest bridge is indicated in the columns left of the factor. Related factors were placed near each other, but generally the list is in random order.

Table 15. *List of Individuals' Strongest Two Bridges*

2nd Strongest Bridge	Strongest Bridge	Bridge Factor	2nd Strongest Bridge	Strongest Bridge	Bridge Factor
17	12	Access to Outdoor Spaces		1	teacher colleagues
2	2	Proximity to Outdoor Areas		1	Support Staff Resources
13	13	Student Interest		1	Teacher colleagues
13	6	Physical Health Gains		1	School Staff Support
1		Physical/ Mental health gains		2	1 Teacher Subject Knowledge
	1	Health Gains		5	3 Teacher Knowledge
	1	Physical Health Gains / Mental Health Gains		5	District Policy
	1	Physical / Mental / Social gains		1	District / Administration Support
8	13	Social Gains		1	School Policy
3	6	Mental Health Gains		2	Fundraising
1		Mental/ Physical Health Gains		1	2 funding
1		Social Gains and Mental Gains		1	learning new skills
1		Social/Mental Health Gains		1	School / District Resources
1		Social / Academic Gains		1	Teacher Support
1		mental health/ social gains		1	Teacher/Parent/Admin. Support
	1	Mental / Physical Gains		1	Student Experience
	1	Mental and physical health		1	Resources- many available
	1	Social and Mental Gains		1	Hands-on
13	7	Teacher Philosophy		1	Teacher costs
8	5	Student gains		1	Student Knowledge
	1	Student Interest and Student Gains		1	School Traditions
3	3	Academic Gains		1	NVOS
1		Academic / Physical Gains		1	Local knowledge- teacher and other
	6	Prescribed Curriculum		1	Prep Time
3	5	Administration		1	Student/ teacher/ parent interest
2	7	Parents			
1		Parent Volunteers		117	110 Total
	1	Staff Support			

Once again those factor with high average mean ratings are also well represented as strongest bridges. It is also important to note that some factors listed as a 'strongest bridge' may well be a strongest bridges that teachers would like but do not presently exist. A good example of this is indicating prescribed curriculum as a strongest bridge and commenting, "If

the outdoor ed. is ministry required or recommended, then I am more apt to take them to comply” (Q27). Comments made about individuals strongest bridges were often repeated and expanded upon in the open-comment section.

Chapter V: DISCUSSION

The three questions of inquiry that guided this study will create the framework of the discussion. It is hoped that each question will build on the former and bring meaning to the study as a whole. The three questions of inquiry are:

1. To what extent is Outdoor Education being offered in school?
2. What are the bridges and barriers teachers perceive to offering Outdoor Education, and which are the strongest?
3. What can be done to weaken the barriers or strengthen the bridges to offering Outdoor Education?

5.1 More Outdoor Education Ought To Be Offered to Grade 4-7 Students in School

From the analysis, we are able to approximate how much Outdoor Education teachers offer their students. On average, teachers offer a non-overnight OE experience 5.4 times per year, which is only just more than once every two months. On top of this, teachers on average offer 0.95 nights of OE, although the majority of teachers offer no overnight outdoor education. Combining non-overnight and overnight experiences, teachers offer a rounded total of 8 experiences per year. This is an average of one OE experience every 5 weeks during a 40-week school year. Above and beyond this, another 12% of teachers offer some kind of extra-curricular OE.

At this point it is best to review the definition of Outdoor Education given on the questionnaires:

Outdoor Education is when the process of learning takes place out-of-doors and the outdoor environment is meant to affect the learning.

Examples:

*Canoeing
Collecting insects from the school grounds
Park walks
Poetry writing in the out-of-doors
Outdoor Orienteering*

Non-Examples:

*Soccer on the sports field
Environmental Ed. in the classroom
only
Indoor Aquarium visits*

An outdoor experience can range anywhere from a five-minute jaunt collecting specimens in the schoolyard, to twenty-four hour days of hiking and camping. Eight 5-minute jaunts per year, totals forty minutes per year. Even 8 full days is only 4% of actual B.C. public school days¹ (and overnight experiences are often outside of regular school days).

To say whether this amount of Outdoor Education is good for education is a complex pedagogical debate beyond the confines of this study. To arrive at a number of experiences that best supports students' learning is impossible. Students "learn in a variety of ways and at different rates" (Min. of Ed., 1995a, ¶ 1). Each class has various needs and strengths that guide how much OE would be appropriate.

With that said, there are multiple suggestions that more OE should be offered. Comments from participants seem to clearly support more OE in schools: "outdoor education should be more available to students" (Q31), "I think outdoor ed. would be a benefit to their education" (Q46), "I need to do more!!!" (Q49), "Usually can afford one major outdoor ed. experience and I'd like to do at least one a month" (Q99). It is interesting that the 'elite' private schools of B.C., which are expected to offer education less hindered by funding and other non-pedagogical issues, offer much more extensive structured Outdoor Education

¹ Under the B.C. Schools Act, schools are mandated to offer a minimum of 187 days of instruction and 194 days in session (Min. of Man., 2004).

experiences (St. Michael's University School, 2004; Crofton House, 2004; St. George's School, n.d.). Seeing OE as under utilised is in line with other related research: "The field trip has long been recognized as a teaching tool in education, particularly in geology and biology sciences. However, the general agreement on the educational value of field trips has not been reflected in their use by schools" (Orion, 1993). Research also shows a correlation between longer OE programmes and higher outcomes (Hattie et al, 1997; Cason and Gillis, 1994). Participants acknowledged this as well: "They need to be more often / consistent to have long term impacts" (Q68). As discussed in the following section, teachers' ratings expose barriers of a non-pedagogical nature, while the factors related to improved learning press for more OE. Basing programme choices on student learning consequently appeals for more Outdoor Education as well.

The amount of Outdoor Education being offered seems meagre relative to the related gains affirmed by teachers and research. Although we should not belittle the tremendous amount of time and effort many teachers put into offering Outdoor Education, there appears to be a myriad of untapped resources to be utilized for student benefits. The following section explores why those untapped resources lie dormant.

5.2 The Bridges and Barriers

It needs to be easy to take your kids outside [...] Seems that it's not worth the effort sometimes. However when the kids learn, grow and glow with the experience you know why it's important (Q104).

Comparing the pros and cons of Outdoor Education guides teachers' decision-making. If perceived bridges measure up strongly against perceived barriers, more OE is likely. If menacing barriers loom over the bridges, OE will be left unexploited. The bridges and barriers identified in this study shed light on why OE is and is not offered to students.

The multitude of bridges and barriers identified in this study has provided interesting insight into the teaching of many fellow colleagues. What each teacher experiences in relation to Outdoor Education cannot be summed up in a few pages. Like our students, each educator is an individual and carries unique views and perspectives.

This discussion hopes to provide a concerted voice to those teachers who participated in this study. Not every voice can be heard, and in fact, the voice of the whole may speak directly against some thoughts of the individual at times. The bridges and barriers below are those seen to be consistently of concern to most teachers.

5.2.1 The Barriers

The barriers to offering Outdoor Education are particularly challenging. Interestingly, bridges so often parallel the perceived barriers to OE: "I love outdoor education, but I'm tired of organizing these trips (Q93). This lays fertile ground for much aggravation: "I did not realize how much pent up frustration I had regarding this issue" (Q112). The dominant barriers stem from three areas: time, money and legal liability.

Teachers days are filled with ringing bells delineating what to do and when, and a list of x, y, and z that needs to be accomplished between those bells. The longest interval between bells exists between class end and the beginning of class the next day, but this time is also under great demands. Of the strongest twelve barriers identified by teachers, six are concerns of time: Teacher Preparation Time (-0.8, 12th), Scheduling Conflicts (-0.9, 11th), Paperwork (-1.0, 10th), School Fundraising (-1.3, 8th), Teacher Time Outside of School Hours Implementing Outdoor Education (-1.5, 7th), and Curriculum Time Constraints (-1.7, 5th). Time is one of the most prevalent barriers to offering Outdoor Education: "There is a lack of time to pursue meaningful outdoor ed. activities" (Q11).

There is a saying I learned while teaching in Germany: *Geld ist nicht alles, aber ohne Geld ist alles nichts* (Money is not everything, but without money everything is nothing). In the reality of teaching in public schools, money proves to be a grave concern for many teachers. It is not that teachers demand silver cutlery and gold-embossed stationery, but rather funding which allows them to ply their trade effectively. In relation to OE, teachers voice their concerns: "So many wonderful things to do, but they are often expensive!" (Q99), "No money for OE" (Q111). Money as a hindrance surfaces in five of the nine strongest barriers to OE: Transportation (-1.1, 9th), School Fundraising (-1.3, 8th), Teacher Costs (-1.5, 6th), Student Costs (-2.2, 3rd), and School Funding (-2.3, 2nd). In a time of government budget cutting in B.C. education, money issue have left impacting damage among schools and are among the greatest barriers to Outdoor Education.

On its own, Legal Liability (-2.8) was rated the strongest single barrier factor for teachers. The impermeable nature of this barrier was reinforced by other buttressing factors: First Aid Personnel (-0.6, 17th), Teacher Safety Training (-0.8, 14th), Paperwork (-1.0, 10th),

and Student Safety Concerns (-1.8, 4th). Surrounded by words of fear about the “possible legal ramifications” (Q9), legal liability makes up the third area of dominant barriers.

These three barrier areas correspond with those mentioned in research literature. Orion (1993) lists barriers to field trips directly paralleling those barriers to OE found in this study: “Logistical limitations exist in the school system. Organizational difficulties, cost factors, safety/ security concerns and the lack of time are common barriers.” Barriers for field trips listed by Michie (1998) show obvious similarities but some disparity is noted:

- Difficulties with transportation, including cost
- Teachers’ skills, the disparity between theory and practice and a perceived teacher inertia
- Time considerations—preparation, fitting into the school timetable
- Lack of support from school administration for field trips
- Curriculum inflexibility
- Poor student behaviour and attitudes
- Inadequacy of resources and choice of venue (§ 5)

School administration, student behaviour and choice of venue proved to be bridges in B.C. teachers’ eyes. The Australian teaching context of Michie’s study may affect the differences noted. Legal liability as a barrier, distinct from student safety, is also becoming more prevalent in literature as well. Siegenthaler (1996) warns, “Litigation has caused programs to be eliminated, facilities to be closed and equipment to be banned” Neill (2003) further underlines this barrier: “I have become aware of several educationally strong activities and program components in various schools which have fallen by the wayside out of litigious fear” (§ 3). The barriers that emerged in this study appear to be shared by educators elsewhere.

5.2.2 The Bridges

“There are so many good reasons (bridges) to / for learning in the outdoors” (Q5). It is this plethora of bridges that brings many teachers to offer Outdoor Education experiences to their students. Those factors that promote OE fall under three headings: availability of outdoor areas, educational stakeholders, and student learning benefits.

The context of B.C. teachers is that of being close to green spaces. From the most populated areas of the province to the remote outreaches, teachers know they are close to prized outdoor spaces. Although transportation may present a stumbling block, access is still viewed favourably. With Access to Outdoor Spaces (+1.7, 10th) and Proximity to Outdoor Areas (+2.0) promoting Outdoor Education, the availability of outdoor areas is a strong bridge for B.C. teachers.

Most educational stakeholders are found to be collaborating with teachers to enhance OE in schools. The primary stakeholder, the student, is no exception. Student interest (+3.2, 4th) shows they “want to get out into Outdoors” (Q20). Their mental health (+2.0, 8th), physical health (+1.9, 9th), and knowledge (+1.2, 12th) are all seen conducive to OE also. Teachers see that administration (+1.5, 11th) “strongly supports outdoor education” (Q42) and praise them often. Parents (+0.9, 15th) and parent volunteers (+0.8, 17th) add another perceived building block to creating OE programming. Finally, teachers’ fellow colleagues (+0.8, 16th) present a mild bridge to offering OE. Although teachers often feel alone in their professional endeavours, when other educational stakeholders are involved, the results are a strong bridge to OE.

“[I] have never found anything more powerful than wilderness activities for helping the children develop physically, mentally, emotionally or socially” (Q94). Student learning,

which forms the basis of schooling, stands proudly at the top of the strongest bridges in this study. Of the top six strongest bridges, five are firmly planted in student learning: Teacher Philosophy (+2.2, 6th), Academic Gains (+2.9, 5th), Physical Health Gains (+3.7, 3rd), Mental Health Gains (+3.8, 2nd), and Social Gains (+4.1, 1st). These pedagogical motives are the most powerful battery of bridges that teachers perceive to offering Outdoor Education.

The contextual bridges identified in this study do not always match those in the research literature, although the pedagogical ones do. As mentioned, “choice of venue” (Michie, 1998) was seen as a barrier to field trips, where access and proximity to outdoor areas was seen as a bridge to OE. Various papers also have conflicting views of the various educational stakeholders in relation to off-site excursions, and this also fits in with the disparate distribution of ratings associated with other educational stakeholders (Disinger, 1984; Michie, 1998). The student learning bridges are echoed in a summary of reasons for taking science field trips: “providing first-hand experience, stimulating interest and motivation in science, giving meaning and interrelationships, observation and perception skills and personal (social) development” (Michie, 1998). Physical health gains were included among educational objectives teachers cited for bringing students to outdoor education centres in another study: “To increase choices for a healthy and safer lifestyle” (Cooper, 2004). Reasons for offering OE appear to be shared, but whether certain factors are bridges or not, seem to be more context dependant.

5.2.3 The Nature of the Bridges and Barriers

It is important to recognise the stark difference between the types of bridges and the type of barriers teachers perceive. The barriers are mainly of a non-pedagogical nature. The

only barriers that may have pedagogical groundings include Curriculum Time Constraints (assuming the constraints are educationally based and not due to Ministry prescription) and Student Safety Issues (if it is actually the welfare of the student, and not the legal ramifications that are of concern). All other barriers deal with organisational, financial and legal issues. These would play no role in schools of a utopia. Schools would base educational programming on pedagogical motives alone. On the other hand, the essence of the bridges is very different. With the exception of the availability of outdoor areas, the bridges have education at their centre. Educational stakeholders, who are recognised as important bridges to OE, assumedly strive to improve the educational quality of students' learning. Most importantly, the strongest perceived bridges are of pure educational interest; they are clearly based on student gains: academic, physical health, mental health, and social.

The educationally inspired spirit behind the bridges makes them immeasurably more admirable in the eyes of an educator. Unfortunately, the non-pedagogical character of the barriers does not make them any easier to overcome. It simply makes it more frustrating that they exist. It is much easier to come to terms with educational decisions with pedagogical pros and cons on either sides of the equation. When decisions seem more based on practicality than pedagogy, those decisions sit less easily with our professional conscience.

5.3 What Can Be Done to Weaken the Barriers or Strengthen the Bridges to Offering Outdoor Education in Grades 4-7?

Success can often outweigh some of the concerns involved (behaviour, resources, paperwork) but the volume of concerns can lead me to stay in the classroom rather than invest the time/effort to take on special trips (Q68).

There will always be concerns when offering any learning to students. Outdoor Education too will always demand certain barriers be overcome. Time and effort will be demanded as a part of the professional duties of teachers and I believe teachers are more than willing to do their fair share. What is needed is the lowering of barriers to a more workable level and strengthening the bridges so that offering Outdoor Education is not an onerous task. In this way, it is hoped that teachers will not be left thinking: "Outdoor ed. is wonderful but too much work" (Q7).

Education in B.C. has many very positive sides. I believe our students receive top-notch schooling. Teachers, administrators, parents and students often work together with great results. Unfortunately, there is still much that is denied due to a lack of resources. This is not due to a lack of funds in our society. As we look around us and see the material wealth crowding our streets and making its way faster and faster to the landfills. It seems that obvious provisions exist. British Columbian society is in a position to truly better our quality of life through investing more resources in our education. We should not only write it on websites and trumpet it in political speeches, we need to give public school students a better chance to "develop their individual potential and acquire knowledge, skills and attitudes to contribute to society" (Min. of Ed., 2004e, ¶ 1). If we honestly believe in education, school resources need to be increased not reduced, so that students may receive rich schooling

opportunities. Among the victims of the B.C. government school cutbacks and a general lack of funding lie many Outdoor Education opportunities.

Although there is much to be said for providing schools with unlimited resources, this is not the reality of B.C. public schools, nor will it ever be. The suggestions below are seen to be reasonable in the context of B.C. public schools. They are not unrealistic dreams, but rather sound suggestions that could be implemented to improve the learning of our students. They are suggestions to chip away at the barriers perceived by teachers and build towards offering more for students. The recommendations below are a synthesis of suggestions made by participants and my professional opinion to address issues brought up by this study.

5.3.1 Discussion of Time as a Barrier and Needed Resources

The menacing barrier of time will serve as a starting point, but suggestions will naturally address many barriers. Outdoor Education places true time pressures on teachers, as all teaching does. The teacher preparation time, implementation time outside of school hours, and the curriculum time constraints all present concerns. None can be magically removed with the waving of a wand, but some relief may be provided.

Many teachers spend countless additional hours to provide their students with OE experiences as they do with other teaching strategies. This personal sacrifice does often result in powerful rewards to students. And even though teachers may be working with great efficiency, there is always more that could be done to add that little extra edge. Time demands become an acute problem when the essential work becomes laborious. Fortunately, there are more options than just bulldozing through the added workload that some see as a

fatalistic OE fact: "There seems to be a dearth of young people coming up who are willing to give very many extra hours to kids in a wilderness setting" (Q94). The title of the Intermediate Conference, from which the bulk of the participants originated, underlines the key point- "Work Smarter, Not Harder" (PITA, 2004, ¶ 1).

As educators, it is important to remember in the hustle bustle to look up and see that there are ways to lighten the workload. "A team approach to outdoor ed. would make the task less daunting" (Q96), and making use of available resources can save copious amounts of time. A reminder of this may diminish the pressures that teachers sense: "It's impossible or too exhaustive to do it all myself" (118), "outdoor ed. is a huge undertaking- one that I would be very reluctant to do on my own" (Q108). To make OE function more effectively, systems need to be put in place to encourage teamwork among teachers and the accessing information already assembled through others' vigour (as we so often tout to our students). Working together can successfully lighten the workload (Hertzog et al., 2000; Dufort, 1999; Deboer, 1995).

One preliminary approach would be preparation time scheduling that promotes collaboration and teamwork. A successful model I have experienced in a larger school gave teachers preparation times that coincided with different teachers on different days. This gave the flexibility to choose the most beneficial teacher groupings for the tasks at hand (e.g. teachers with more OE experience may be available to mentor on one day, while the artistic expert would be available another day). Whether preparation was seen best accomplished alone or as a team, it could be carried out as preferred. This would demand more preparation time than common in B.C. schools now, but the advantages for students would be very evident.

Teachers should be more actively informed about cooperative groups such as the B.C. Environmental Educators Provincial Specialist Association (EEPSA), Eco Education B.C., WILD BC, and the Outdoor Recreation Council of B.C. (ORC). Being informed would promote these groups being accessed for the wealth of knowledge they have to offer. Beyond the borders of our province are also marvellous groups such as the Global, Environmental and Outdoor Education Council (Alberta), Canadian Network for Environmental Education and Communication (EECOM), and the Council of Outdoor Educators of Ontario (COEO). If teachers experience a barrier, there are many colleagues and associations who are happy to share experiences and give advice. Re-inventing the wheel is common among teachers, but it is important that at least sometimes we seek direction from others on the engineering of how other educational wheels have been built.

It is essential that these groups continue to fashion their information so that teachers can easily access it. Actively providing teachers with links to good, clear and succinct information may give guidance for teachers in this information age. The Ministry, school districts, the union and the groups themselves can help to this end. This would help address multiple concerns: “Would be nice if there were more access to pre-made programmes” (Q3), “Like to learn where I can find more resources” (Q42), “As a new teacher, I would like to know where I can find resources for planning and means of teacher training” (Q46), “Knowing what is available out there” (Q84).

The Ministry could address these and many other concerns by embellishing and maintaining updated resources in the IRP’s or creating an Outdoor Education handbook to include more rationale, guidance, information, and links to recommended resources on OE for all teachers in the province. This means all can enjoy the fruits from the labour that goes

into these documents. Each teacher does not need to start at ground zero. It would also impress upon teachers that there is more official backing for OE from the government. The Government of Alberta (1990) curriculum documents, Environmental and Outdoor Education, could make for a good starting point (Remember, we want to promote teamwork). Another advantage is that experienced OE educators putting together this information and sound advice enhances the safety and proficient implementation of OE. This is far superior to leaving individual teachers to search out and assess the quality of resources on their own, especially for those with limited experience.

One teacher suggestion describes a great bridge to offering OE: "An outdoor education resource package would be useful- each district should provide schools with information about the programs available to them- also what the policies are regarding outdoor ed." (Q122). With a package, teachers would be a huge step ahead in preparation time. A committee could create a general provincial package, while districts assembled region specific information ("resource guides on easy lessons to do for various subjects in the neighbourhood" (Q104). A web-based resource could provide quick and easy links between provincial and district resources, as well as links to other recommended sites. Materials such as this also empower the Ministry and school districts to express their ideas in relation to OE, which may otherwise not be heard.

A relatively straight forward approach would be for the Ministry or districts to show OE support by simply trying to open the door: "Schools would benefit from brochures (i.e. info) sent to: 1. Get the ball rolling. 2. Enhance knowledge / Awareness. 3. Cut down research time." (Q110). At times teachers only require a tiny nudge to start building momentum: "Questionnaire made me realize I need to do more!!!" (Q49).

An effective way to implement this might involve supporting interested teachers in creating materials and maintaining a website as a portion of the teaching assignment. This means qualified teachers with an understanding of colleagues' needs could keep current OE information available as well as give guidance to other resources.

Materials can be great, especially when there appears to be such a deficiency from the Ministry and most school districts, but a coordinator would be phenomenally powerful and effective. A coordinator could play a stewardship role for district OE resources, but over and above this, support teachers in ways only superficially achieved by materials. So many OE experiences necessitate extensive organisation and footwork that does not need to be repeated by each and every teacher wishing to offer OE experiences. An educator placed in a position to offer advice could ensure that programmes and resources are available and up to date. This person could sometimes offer support during implementation, greatly weakening the barriers to offering OE: "teachers willing to try new things if coordinator there to give support" (Q21), A "district coordinator needed to help teachers do this" (Q21), "A coordinator at the district level to help" (Q78), "Some teachers never do, so they need to try it with support to see how beneficial it is" (Q104), "Present a program all set up which will cut down on Teacher Prep Time" (Q113), "more district programs" (Q104) "Having a district outdoor ed team of teachers. Therefore, a person like me with little outdoor ed experience can still offer the program to students" (Q118), "A definite bridge would be to have an expert volunteer who is willing to provide information specific to a teacher's needs" (Q124). A coordinator at the district level would create a resource and leadership in an area that is much needed. Presently, teachers have little to no structured guidance other than that which they may happen to find in their colleagues and administration.

Another collective resource, along the similar lines as a coordinator, is district or provincially resourced overnight facilities. The time and energy each inexperienced teacher would need to invest to be well versed in all angles of overnight OE would be phenomenally greater than employing the skills of a district specialist. Many teachers promote this idea, and recognise North Vancouver School District as a reasonable model: "I know North Vancouver School District has a special outdoor ed. centre that kids go to [...]. This kind of a district resource and funding would be wonderful" (Q99), "[We need a] program designed and supported by the district- i.e. North Vancouver's outdoor school and Bighouse program" (Q71). The bridging qualities are evident: "In North Vancouver, we take gr. 2,3,4 and 6's to Outdoor School. It is a lot of extra work, but all the safety precautions are in place, a first aid worker and principal on site full time, and it is very well organised. It is a valuable experience for all students" (Q117), "North Vancouver supports Outdoor Ed. as does my administration. This makes it very easy" (Q58).

The North Vancouver Outdoor School (NVOS), supported by #44 North Vancouver School District, is a permanent facility maintained and organised with the mission/mandate "to educate children" (NVOS, n.d.,c, ¶ 3). The school has an educational staff, on-site principal, safety personnel and other support staff. Designed programmes are available for specific grades but programmes are facilitated so that they can be integrated directly into students' other learning:

"Unlike other institutions that offer static or fixed programs, NVOS works in tandem with teachers to develop programming. One way they have done this has been to ensure that the educational facilities and resources they develop align closely with the curriculum for students of certain ages. They have then focused on reaching every teacher of those grade levels. Every year curriculum-related environmental education seminars and workshops are offered." (NVOS, n.d.,c, ¶ 14)

This means that expert support is provided where needed, while the classroom teacher can still maintain the link between the OE and classroom based learning. NVOS experienced staff provides much of the basic organisational work necessary for overnight experiences for all classroom teachers. This is a fine example of effective resourcing to best benefit students.

The NVOS overnight facility is a strong bridge made evident by positive comments from all North Vancouver study participants.¹ One North Vancouver teacher describes how she would act in the position of other teachers: But, I wouldn't organise all that on my own (if I worked in another district) with all the other pressures put on teachers" (Q117). This system could satisfy so many of the voiced concerns: "some teachers insecure to try [Outdoor Education] without support" (Q21)), "More programs / (field trip access) with trained guides (that come with complete paperwork)" (Q26), "it means the teacher has assistance with planning and implementation" (Q11), "adequate funding which allows trained and qualified personnel is very important" (Q108). A facility such as this uses resources effectively and the savings in regard to educational efficiency overall are profound.

I promote the development and maintenance of facilities such as the NVOS, but some teachers made suggestions I disagree with as a mainstay for OE that I would like to address: "provide people who will do the programs for the teachers so they can supervise only" (Q62), "Going to a facility that can do it for you" (Q79), "As a classroom teacher (not an outdoor ed. teacher) I expected those teachers to do the teaching" (Q39). It is true that valuable learning may very well occur during OE experiences that really fully on external experts, but I emphatically promote OE being linked to the rest of grade 4-7 students' education. OE

¹ Among the positive comments were also some complaints about food quality and teacher sleeping quarters. Interestingly, this shows how real life incidents and challenges can surface in unexpected ways during OE experiences.

offers special gains academically, socially, physically and mentally that I hope are not seen as isolated forays, but as an integral component of their education. There are sound pedagogical reasons for the classroom/core teacher in grades 4-7, and these stand in regards to OE. The learning, which occurs before and after OE experiences in classrooms, should be intertwined and synergistic; the classroom improves the OE experience and the OE experience benefits the classroom. OE as I see it therefore demands that the classroom teacher be purposefully involved in its implementation. This does not mean that high-ropes courses cannot provide amazing opportunities unless classroom teachers administer them. It means that classroom teachers should be involved in the high-ropes courses, to enhance and use the learning experience as a part of the curriculum they plan and organise for their students.

Another voice of concern comments: "The classroom teacher's level of outdoor expertise / interest needs to be taken into account. Just as someone would not be expected to teach French or Music. The teaching of Outdoor Ed. needs to be put in the capable hands of the O.E. Teacher" (Q39). I agree that certain aspects of OE may demand OE experts and that there is reason to provide specialized knowledgeable educators for rock-climbing, geological surveys, etc., but Outdoor Education as a methodology can in my mind be implemented by all competent classroom teachers. This participant may be referring to kayaking, back-country skiing and other skill specific pursuits, but OE as I define it in this study, is mainly based in common modern pedagogical practice: hands-on, experiential, collaborative and child-centred. These techniques, which are used in the classroom with various success, can be brought outdoors where the new environment opens doors to a whole new context for discovery. Unlike French and Music (which I have always taught as a non-specialist), basic

OE is a way of teaching that every teacher has the abilities and skills to offer. In reverse, I believe the French teacher would find herself well trained to wander among the trees at a *cabane à sucre* embellishing students' cultural understanding, or a music teacher could facilitate First Nations' drumming among giant red cedars with proficiency.

Accessible professional development for teachers should be offered so that teachers may come together to improve their awareness of OE: "more workshops on possible outdoor ed. Programs" (Q18), "Workshops would [...] be great" (Q42). Through in-service training and OE components to teacher training programmes, teachers may come to better see the attainable benefits of OE for their students. The results of this study give an understanding of the barriers that need to be addressed during instruction- issues of time, funding, information resources, transportation, liability and policy- as well as the bridges to be emphasised: outdoor areas, teacher philosophy, student gains, and other stakeholders. There is also strong support for professional development focussing on integration and using OE to enhance curriculum; not as another separate agenda to compound the workload. Teachers' requests for in-service were plentiful with suggestions such as: "Pro-D to show how it can be done painlessly and cheaply" (Q104), "more teacher, district and parent education about benefits" (Q89), "Ideas for inexpensive outdoor education" (Q119).

In the spirit of OE, professional development and teacher training should also incorporate hands on and experiential learning: "The 'Level 1 Canoeing Course' offered by the district was ideal" (Q118), "Workshops providing examples" (Q119), "I lived in Australia where the State Forest Dept. offered weekend camping excursions for teachers (free!!). As teachers, we got to experience first hand what our students will learn and how they can benefit from this experience. It was great!" (Q102.).

It is positive to know that some OE professional development is being offered but judging from many participants' comments these are not enough: "more courses for teachers" (Q102), "availability [of] courses to take" (Q49). By broadening the scope of in-service for teachers, we broaden the chances of students benefiting from OE, and do not rely on teachers being forced to slog through offering experiences alone.

By teachers attempting to self-train themselves and not being given direction by the Ministry or school districts on OE resources, it is likely that the combined amount of work unnecessarily repeated in the present system is manifold that of creating structured resources for teachers to draw from. Collective resources and training can save immeasurable effort. This situation is difficult for accountants to gauge because the extra time teachers spend re-doing this work presently does not 'show up on the books' whereas a funded committee, coordinator, overnight facility or in-service would. But the reality is, teachers can only give so much to their profession, and if a block of that is absorbed by unnecessary work, this leaves less for improving their teaching in other ways.

Unfortunately, teacher time spent implementing OE outside of school hours budes very little as a barrier. If teachers believe in the merits of overnight OE experiences, teachers will need to spend prolonged periods of time with their students outside of school hours. Although it is important to remember that teachers should not organise extended experiences so that they are on 'full-duty' twenty-four hours a day. Programmes must have reasonable duty rosters giving all involved respectable downtime for safety and health reasons. Another suggestion, which would perhaps be more quickly addressed in other lines of work, was: "Need for some kind of compensation for the (I really hate to state it like this) personal

sacrifice” (Q87). It should also be remembered that extended experiences is only one part of OE and within the hours of a regular school day OE opportunities abound.

The issue of curriculum time constraints is immense and deals very much with the greater question of what good education is, as well as the role of prescribed curriculum and its interpretation. Only a few points will be mentioned in this regard.

Perceptions vary in the relationship between Outdoor Education and curriculum. To support OE a more positive connection needs to be more broadly accepted: “We need to have outdoor ed. perceived to be valuable as ‘in-class’ instruction” (Q56), “Teachers need to be helped to develop the understanding of the power to OE for children, to realize that there is curriculum that is best taught outdoors and to develop the skills to do this” (Q94). Although there are explicit OE learning outcomes presently in B.C. Ministry curriculum, they are few and perhaps not widely acknowledged. Most links to OE in the curriculum are due to learning outcomes being seen as best achieved using OE (Understanding life cycles is not necessarily OE but observing the salmon cycle firsthand is a strong link). I believe OE would benefit most not by adding more direct OE learning outcomes to the IRP’s, but rather by explicitly pointing out OE as a recommended method to meet many of the objectives currently in the IRP’s. This allows teachers to feel more confident that their OE approach to teaching is indeed supported by the prescribed curriculum. Thankfully, this does not add more to the sea of outcomes already flooding the IRP’s. It also promotes flexibility for teachers to employ OE where it is best suited and encourages more meaningful learning rather than a checklist of objectives.

This proposal speaks to comments advocating more curriculum links such as, “curriculum focus that can incorporate more time out of the classroom” (Q31), while

respecting the issue of “too much material to cover, doesn’t lend itself to taking time off for outdoor ed.” (Q72). It is hoped that this promotes many teachers’ view that OE is an effective way to meet the educational needs of students.

This stance lies at the root of one structured programme currently aimed at grade 10 students at Prince of Wales Secondary: “The ‘TREK’ programme is an excellent example of offering outdoor ed. during class time” (Q114). It is designed to meet all requirements of grade 10 through a combination of class based and ‘on-TREK’ outdoor experiences. Students meet the same IRP learning outcomes as other students but through a distinctly OE manner (Prince of Wales, n.d.). The TREK programme is evidence that OE and the curriculum have positive connections, yet the Ministry should reinforce their symbiotic relationship and explicitly recommend OE in curriculum materials more regularly.

Although I approach this suggestion to improve efficiency with caution, there are many splendid OE resources from other governmental organisations, non-profit organisations and the private sector². Teachers need not shy away from these resources but should always bring a critical eye to the opportunities when assessing where the resource is from and the pedagogical aspects of the source (ASCD, 1990; Olson, 1990). Forestry, fishing, mining and other groups often support OE with information, equipment, transportation and even funds. This can provide much needed assistance and students have much to gain. Obviously, teachers need to be aware and guard against biased learning programmes that can often occur under these circumstances. Good education should come before simple implementation sometimes suggested by such groups. A successful model has been to allow multiple interest groups to present OE that may contain bias from different angles while assuring equitable

² It should be noted that this suggestion does not include interest groups that are using schools solely as a targeted advertisement groups. On the contrary, many organisations have valid interests in providing what they, along with many educators, deem as good education.

exposure. A bias may still exist, but even teachers present their own biases regularly to students.

As previously stated, nothing will alleviate all concerns of time for teachers, but there is much that can be done. That which is done can be very positive by giving teachers more time to improve their teaching in other ways and by making Outdoor Education opportunities more available to students.

5.3.2 Discussion of Funding as a Barrier and Needed Resources

In addition to resourcing needs discussed in the previous section that naturally relate directly to funding, other issues of funding are also worthy of mention.

A treatment often used to overcome the problem of funding is fundraising. Fundraising can, believe it or not, be an educational endeavour, but I tend to agree that there are "limited opportunities for meaningful fundraising that doesn't interfere with learning time nor be too labour intensive for teacher" (Q88). For successful fundraising I believe students need to be at the centre of it. They need to benefit from their participation, not only in its monetary gains. Many real life lessons can be learned through organising and implementing fundraising events. A greater connection between school and the world outside is also possible. Involving parents in this can be positive as well, but only in that it can strengthen home-school bonds, not as a form of cheap labour. When one is able to step back to contemplate the constructive nature that could under certain conditions reify from fundraising it seems rather pleasant. Unfortunately, in the arduous work that normally results for teachers, it is only meekly uplifting. If fundraising is to be a part of school education, it needs to be done so students gain from participating. If students do not, then it should not be

done in schools and adequate funding needs to be provided for proper public education by government.

As far as teacher costs are involved, I sympathise with teachers who feel pressured to personally finance any part of students' education. At the same time, I see this as simply a misguided approach to dealing with funding concerns. Teachers bring to the education table amazing amounts resources, but this should never be in the form of finances. In the same way salespeople are not expected to top up customers' funds to meet purchase costs, and doctors need not reach into their own pocket to pay for patients' medication, teachers should not spend their personal savings on student needs. To do so, potentially leads teachers to resent the activity they are offering, and as this study shows, creates a barrier to OE opportunities for students.

To give students access to learning beyond the confines of the classroom, a reasonable method to get there needs to be available. I think it is important that teachers keep in mind that 'wild' outdoor areas are not the only venues for OE. Many locations in the vicinity of schools make for powerful OE experiences: park, ravines, streams, etc. Although not always applicable, I like the positive comment of: "Access awesome- but its just often mindset" (Q44). When teaching in an inner-city school I remember many successful class trips undertaken on foot. Another trip made use of local transit and a handful of inner-city grade 7 students had never been on local busses before. This was a pleasant unexpected part of the off-site learning experience. Implementing a bicycle programme is another effective and active transport idea with positive outcomes. For more distant destinations, district support in the form of access to district busses or funds for rental is a logical bridge to OE.

An especially important aspect of funding school OE is its promotion of social justice. Providing OE through the public school system would mean that all children have a better opportunity to benefit from OE, not just a select few. It means greater equality afforded for students often left out: “Outdoor ed. is beyond the experience of most of my students in an inner city school” (Q17), “families have difficulties coming up with the cost” (Q31), “I work in an innercity school. We have socio-economic factors that make it difficult to leave school” (Q20), “kids (and families) with money can afford it and the regular public school kids (especially in poverty belt- who need it most) cannot (Q112). By classroom teachers offering OE to students, it also means students from all backgrounds will benefit and not just those from particular cultures or of a particular socio-economic status. Public schools are an excellent venue to uphold positive values of equality and inclusiveness.

5.3.3 Discussion of Legal Liability as a Barrier and Needed Resources

As a rule, those people who have chosen to work with children as their profession care deeply for those children. To see a student hurt would be painful for a teacher, legal ramifications and professional responsibility aside. Teachers do not want to see students suffer. This Includes seeing students suffer from missed opportunity caused by perplexing legal issues.

It is distressing if the state of the nation produces a setting where “liability concerns are a huge worry – not worth the risk to take kids to wonderful places” (Q25). Should we only let children sit in dark padded rooms eating celery sticks? While it may be true that “there is a greater chance of a student getting hurt outside of the classroom” (Q117), there is also harm in keeping students overprotected and under experienced. Students need exposure

to life in order to be able to function effectively and become competent adults. OE is a medium to provide some of that exposure.

We hurt children by keeping them bottled up too tightly, when inevitably they must be released to walk on their own two feet. If they have never had the chance to test their legs, they will predictably fall. This can be devastating in high-stakes situations beyond the reach of supportive hands. If we do not provide these opportunities in a learning setting, students will, as their freedoms increase, find themselves without guidance in places where falling could result in much more than a skinned knee. Proper Outdoor Education in schools could address the too-familiar news reports of ill-prepared hikers lost in the local mountains of Vancouver.

By not exposing students to OE we run the risk of sentencing students to a limited education, without the social, academic, physical health and mental health benefits of OE. It is important to recognise risks of offering *and* not offering OE. Take for instance the possible ramifications of denying students the physical health gains provided by OE. By not giving students the prospect of enjoying outdoor activities, their chances of developing a lifelong active outdoor passion are stifled. Placing this in perspective with children's health trends can be gloomy. "Research indicates that more Canadian children are overweight and obese than in the past [...] The weight gain in children is due primarily to lack of physical activity. To reverse that trend, children should become more active and eat properly. Active, healthy children have a better chance of becoming active, healthy adults" (Canadian Heart and Stroke Foundation, 2001). The risk may not seem as vivid as a child being stung by a wasp on an outdoor trip, but the effects can be much more permanent and damaging.

A regrettable concern is that many potent OE experiences are passed up because of a fear of legal liabilities: “in this day of liability / suing, it’s much safer to stay in the classroom where it’s more predictable” (Q117), “Too many legal issues in taking kids off school property” (Q46), “parents are becoming more litigious” (Q114). Legal Liability was rated the strongest of all barriers for teachers to offering Outdoor Education. I emphasise that it is a legal liability concern and not a fear for the welfare of students. This is an important distinction that is difficult at times to clarify. I agree that OE does increase concerns that students may perhaps be physically injured and that there are characteristics of some OE programming that do incorporate some amount of increased risk. Yet, would ‘a prudent and careful parent of a large family’ (in loco parentis) not want to offer the activities grade 4-7 teachers wish to? Are they seen as “too risky” (Q83) for the child’s welfare? How do these compare to “activities of high and potentially catastrophic risk, such as driving, which is so commonplace in our society that society is willing to accept the risk” (LawNow, 2003, ¶13). I doubt teachers believe that. But I do not doubt that the sinister aura of unclear litigation and legalese creates serious and heady paranoia.

Urban myths of irrational million dollar lawsuits and legends of litigation with only a kernel of reality are common. One participant spoke with me after completing her questionnaire and wanted to further explain how bad the legal situation was. She told me that she will never take students to the local downhill ski resort because of a case in Alberta where seven students at their local downhill ski resort were killed on a school trip and the teacher was found fully at fault, in a multi-million-dollar suit. I assume the origins of this story began with the Strathcona-Tweedsmuir School incident, where seven

students did perish in an awful tragedy. But, they were not at a local ski resort; they were in backcountry ski terrain where there was “considerable” avalanche hazard on that day (LawNow, 2003, ¶4). There also was not a multi-million dollar suit but rather “[a] trail on the negligence issues in this tragedy is not likely” (LawNow, 2003, ¶17).

Both the Ministry and the school districts have a duty to clarify legal liability issues with teachers regarding outdoor activities. It is in their best interest, as it opens the door to education opportunities. They also do not want teachers to may make poor decisions because the employers have not provided necessary information (it is in fact the school district that carries much of the legal liability). Teachers want and need to know what is expected of them legally. It is not acceptable to flippantly cut programmes and feel that this action deals with the issue. “It is important that liability issues are explored and exposed so that teachers and boards are not hesitant to o.k. trips” (Q63). Although some materials have been created to give guidance on legal liability, searching the Ministry of Education, the B.C. College of Teachers, the teachers’ union, and multiple school district websites provides no reasonably accessible guidance on this issue (Min. of Ed., 2004b; BCCT, 2004; BCTF, 2004; SD #39, n.d.,b; SD #41, 2004; SD #44, n.d.,b). At best, links to the entire School Act and Teaching Profession Act are available on the Ministry of Education (2004c) site. There should be accessibly legal information from the Ministry and school districts, which in a comprehensible format explains the expectations of teachers leading OE experiences. This information should also be available to parents, students and other educational stakeholders.

Legal liability, from a legal perspective in any case, does not exclude teachers from offering grade 4-7 OE experiences. Teachers are charged with the same legal

responsibilities on OE experiences as in the classroom with little exception¹. Teachers are expected to be “acting *in loco parentis* with the legal and moral duty of ‘a prudent and careful parent of a large family’” (LawNow, 2003, ¶16). “There is also now jurisprudence suggesting that teachers who engage students in any higher risk activity will be held to a professional duty of care” (LawNow, 2003, ¶17). This means that teachers instructing outdoors or in the classroom need “specialized training, skill, and knowledge not generally available to parents” (LawNow, 2003, ¶17) if they plan to offer higher risk experiences. This seems very sensible and does not reflect a wild and irrational enigma that some teachers seem to suggest exists: “I’m not exactly sure how this works but it is scary these days” (Q48). Legal liability would not be nearly the barrier that it is if teachers were provided with concise manageable legal advice on the present situation.

5.3.4 Discussion of the Bridges to Offering Outdoor Education and Needed Resources

It would be wrong to focus solely on the hindering barriers to Outdoor Education. There are many wonderful bridges that teachers recognise and we must remember that these provide the reasons Outdoor Education is offered.

OE is a remarkable pedagogical method. Students are interested in it and teachers perceive powerful gains in so many aspects of student learning. Social and Mental Health Gains prove to be the strongest two bridges, while Physical Health and Academic Gains stand boldly as the third and fifth strongest bridges respectively. Student Interest surfaces as the fourth strongest bridge. These bridges should be promoted throughout the

¹If students are leaving school grounds, consent forms are needed, and depending on the activity, possibly release forms as well. Certain classroom activities also demand these legal documents.

many resources discussed in earlier sections. Print materials, websites, audio-visual resources, professional development, coordinators, overnight facilities, and interested groups should keep the positive reasons for offering OE in the forefront of information they share. We must not dwell on the challenges alone, but also celebrate the rewards. The prodigious advantages of Outdoor Education need to be better understood in the educational community.

We must not forget that other educational stakeholders, including anyone who reads this study, is in a position to be a formidable bridge to teachers. One comment that speaks to teachers as people carries an important message: "We need a more positive and supportive attitude. We need to be cheered on for all the extra effort and time outdoor ed. takes." (Q78). Teachers are professionals and employees of the education system, but it is their human side that makes them truly effective. Offering OE, as with so much learning, depends on the creativity and skills of teachers, which best shine when inspired to do so. It is predictable that teachers long for "recognition of the value to students, appreciation by [students and parents] of the teacher effort, increased parental involvement in the school in planning and carrying out fundraising, increased involvement of community in the school" (Q116). Providing teachers with the encouragement and moral support they deserve should never be underestimated as bridge and I hope that those interested in supporting OE do not shy from strengthening this bridge.

Chapter VI: CONCLUSION AND RECOMMENDATIONS

FOR FURTHER WORK

6.1 Summary

This study has provided a better understanding of offering Outdoor Education to grade 4-7 students in schools. Although somewhat limited by its scope, this research sheds light upon three major facets of OE. It provides a glimpse into the present extent of OE in schools. It affords a more comprehensive profile of the bridges and barriers teachers perceive to offering OE. This profile along with participant comments has provided a basis for action to weaken the barriers and strengthen the bridges.

The amount of OE offered by teachers in grades 4-7 is limited overall. Some teachers offer OE experiences quite often, but the average teacher offers little to no OE in the course of a school year. With higher amounts of OE offered by a minority of teachers, the mean number of experiences offered in an entire school year is still less than once per month. This does not do justice to the benefits that teachers recognise and cite for OE in the study.

Relative to its perceived gains, there is an incongruously small amount of OE offered due to the multiple barriers teachers come across. Although each individual educator has unique perceptions of the hindrances to offering OE, certain barriers are common. Time is a menacing barrier and manifests itself in dominating factors such as: Curriculum Time Constraints, Teacher Time Outside of School Hours Implementing Outdoor Education, School Fundraising, Paperwork, Scheduling Conflicts and Teacher Preparation Time. Issues of Funding also loom large over offering prospective OE experiences: School Funding, Student Costs, Teacher Costs, School Fundraising and Transportation. The most debilitating hindrance perceived by teachers to offering OE was Legal Liability, which was further

reinforced by related stumbling blocks such as: Student Safety Concerns and Paperwork. Combined, these make up the bulk of what teachers perceive as barriers standing in the way of offering Outdoor Education experiences.

On a positive note, teachers also perceive powerful bridges to offering OE experiences. To begin, there are the bridges noticed in the Proximity of Outdoor Areas and Access to Outdoor Spaces. These are perhaps somewhat specific to the B.C. teaching context. Another source of strong support for teachers is found in other educational stakeholders. Many shone through as considerable bridges: Student Interest, Administration Staff, Parents, Other Teacher Colleagues and Parent Volunteers. Yet the strongest bridges to offering OE, are factors that deal with the benefits to students learning: Social Gains, Mental Health Gains, Physical Health Gains, Academic Gains and Teacher Philosophy. These are the type of educational elements that should carry the greatest influence when programming decisions are made.

To promote grade 4-7 OE in schools, multiple supports can be put in place. Some bridges to be considered included:

To address issues of time:

- A team approach, where each member's skills and time are used as wisely as possible (Hertzog et al., 2000; Dufort, 1999; Deboer, 1995).
- Teachers should be given more time to work collaboratively. Scheduled preparation time overlapping with other educators can assist this.
- Knowledge and expertise of various OE interested groups should be used by teachers, and those groups should reach out to teachers in an efficient manner (ASCD, 1990; Olson, 1990).

- Efforts should be brought together to create Ministry and school district supported materials on OE. Possible mediums include: improved IRP's, a provincial and school district OE Handbook, or even brochures to get things started.
- Interested teachers should be involved in creating OE material and other supports to make use of their first hand understanding of classroom realities.
- OE coordinators should be employed on both district and provincial levels as stewards of OE materials and personal contacts to give teacher support otherwise limited through materials.
- Overnight facilities similar to that operated by #44 North Vancouver School District should be accessible to all students. This would change the face of overnight OE opportunities in B.C.
- OE professional development and teacher development needs to be more broadly offered to teachers and include hands on practical workshops that address the bridges and barriers such as those noted in this study. Teachers need to be supported to integrate OE into their curriculum not how to increase workload.
- Curriculum documents need to more explicitly show teachers where OE could be employed and include greater recommended resources and strategies.
- Although teachers should be cautious, other governmental organisations, non-profit organisations and the private sector should be tapped as a viable resource for OE.

To address issues of funding:

- Appropriate funding should be made available for OE.

- If students are involved in fundraising, their participation alone should benefit them. The monetary gains should be secondary. Teachers and parents should not simply be 'cheap labour.'
- Resourceful transportation such as cycling, local transit and simply walking should be taken advantage of. When bussing is appropriate, it should be funded.

To address issues of legal liability:

- It should be made clear that there are risks of limiting education by not offering OE.
- The Ministry and school districts need to better clarify the legal responsibilities of teachers regarding OE. False information creating paranoia should be replaced by concise and straightforward legal advice.

To address the bridges to Outdoor Education

- The far-reaching advantages of Outdoor Education should be trumpeted widely through the various resources mentioned. Especially important are the noted bridges of: Social Gains, Mental Health Gains, Physical Health Gains, Academic Gains and Student Interest.
- Educators should be recognised for the time and effort they devote to offering Outdoor Education.
- Educators should be cheered on and given moral support to offer OE experiences to their students.

Viewing these suggestions against the backdrop of information provided by this study, it seems evident that barriers can be pulled down and bridges erected. If we believe in

the benefits of Outdoor Education, as the teachers in this study and the literature supports, interested stakeholders should implement the suggestions with optimistic enthusiasm.

6.2 Limitations of This Study and Methodological Suggestions

Given the resources available for this study, many teachers' voices were heard. Yet a sample size of 120 participants only affords statistics of a descriptive nature. To have more reliable results, greater resources and a larger sample size are necessary.

The questionnaire wording asked teachers to identify factors as bridges and barriers to them personally. It is possible some teachers identified factors as bridges because they believe the factors could be bridges, not that they currently are. This challenges the validity of some results. In further research clearer explanation is recommended.

This study was also limited by presenting bridge and barrier factors for rating by a single phrase only. Factors were not described specifically, leaving much room for interpretation. A factor such as Parents could be understood as referring to anything from parents' pedagogical views of OE, to parents' willingness to sign permission forms. Open-ended answers guided results but the possibility for diverse interpretations by participants must be taken into account.

Along similar lines, the multifaceted nature of factors was not investigated.. This allows important issues to possibly be masked. If, for instance, the skills of Support Staff were seen as an extreme bridge but their job description created an extreme barrier, this dichotomy would not be evident in this study. Two important issues that deserve attention would be lost.

The interrelations of bridge and barrier factors were not investigated in this study, although they are certain to exist. This means the correlation and multivariate nature of factors such as Student Safety Concerns and Legal Liability were not investigated. This means the strength of individual factors is somewhat obscured. It is possible for instance, that Student Safety Concerns would surface as a much weaker bridge if it were not for the effect of Legal Liability.

Multiple factors provided for rating also used biased phrasing that would have affected responses. Although information was collected about these factors, more neutral phrasing would afford more powerful claims to be made. Factors with these concerns include: Unclear District Policy, Unclear School Policy, Unclear Union Policy, Student Safety Concerns, Curriculum Time Restraints, Academic Gains, Physical Health Gains, Mental Health Gains and Social Gains.

The questionnaire format could also be improved by including a 'Not Applicable' or similar choice for the rating scales and giving a description of a '0' rating. Not applicable would have been very appropriate for those factors dealing with the union, as some teachers (independent schools) have no affiliation with the union. A '0' rating could be described as factors that do not have a net effect that is neither positive nor negative.

An option that would change the design of the research somewhat but offers certain advantages would be to ascribe a description to each rating on the scale. For instance, +1 could be linked to an expression such as 'a mild bridge to offering Outdoor Education.' Naturally, the translation of a numerical value into a written statement is problematic especially when certain analyses are used. On the other hand, without this link, the results

are left to be interpreted numerically making translation into written word problematic. This research is bound to a more numeric rather than written word interpretation.

In light of the current study, a more streamlined questionnaire could be recommended with fewer factors for rating and somewhat different phrasing. This would address some of the issues mentioned above, include those factors observed to be of greatest concern, as well as reduce the time demands on participants. Twenty factors recommended for research along similar lines would be:

- Legal Liability • School Funding • Student/Parent Costs • Student Safety
- Curriculum Time Allowance • Teacher Costs • School Fundraising
- Teacher Time Outside of School Hours Needed for Preparing and Implementing Outdoor Education • Transportation • Paperwork • Parents
- Administration Staff • Access to Outdoor Spaces • Teacher Philosophy of Learning • Academic Learning • Student Interest • Physical Health Learning
- Mental Health Learning • Social Learning
- Teacher Knowledge Related to Offering Outdoor Education

This list uses more neutral phrasing. It includes the essence of factors rated above +1 or below -1, excluding factors seen as redundant (Teacher Subject Knowledge, Proximity to Outdoor Areas, Student Mental Health, Student Physical Health, Student Knowledge, and Student Skills). Parents was included although it had an average rating of +0.9 (SD=2.7) because it featured strongly in participants' comments. Teacher Knowledge Related to Offering Outdoor Education was a synthesis of Teacher Subject Knowledge (mean rating of

+1.1, SD= 2.9) and Teacher Outdoor Education (mean rating of +0.6, SD= 3.1) as both were oft mentioned in comments also.

6.3 Recommendations for Further Work

The present study has brought to light some aspects of Outdoor Education in schools. Just like lighting a trail in the dark, this study allows us to better understand what is around us but it also makes us very aware of the many directions we may explore.

This study is a preliminary glimpse at the extent of Outdoor Education in B.C. schools, but a current comprehensive survey is still needed. A fuller understanding of what and how much OE is offered throughout the province would enable resources to be offered with greater precision to needs.

The current study investigated the views of grade 4-7 classroom teachers. Similar research of kindergarten to grade 3 teachers and teachers above grade 7 would add greater understanding to students' long-term schooling. The differences and similarities between teachers of various age groups is another topic of interest.

The perceptions and views of other educational stakeholders are also important to investigate. Teachers are meaningful sources of information in regards to offering OE, but administrators, school boards, parents and students need to also be included and added to the results of this study.

Naturally each factor in the current study can be addressed individually and in relation to each other. An area of particular interest would be to discern the role of legal liability in teachers' views of student safety concerns as a barrier. This is important, as

resources need to be directly differently if student welfare is the issue or legal perplexity is the true culprit.

As Canadian society evolves into a more litigious and bureaucratic entity, current information on OE legal concerns must be continuously refreshed. Contemporary legal responsibilities of British Columbian OE teachers need to be reviewed and transposed into educational resources for the learning community.

The present study focuses on Outdoor Education for grade 4-7 students. OE in both younger and older grades may prove to show similar characteristics, but further work is needed in these areas to allow more authoritative understandings of the different contexts.

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Definition of Outdoor Education used in this study.

For this study the following is meant by Outdoor Education.

Outdoor Education is when the process of learning takes place out-of-doors and the outdoor environment is meant to affect the learning.

Examples:

Canoeing
Collecting insects from the school grounds
Park walks
Poetry writing in the out-of-doors
Outdoor Orienteering

Non-Examples:

Soccer on the sports field
Environmental Ed. in the classroom only
Indoor Aquarium visits

Please complete the following information about the amount of Outdoor Education you involved your class(es) in during the 2003/2004 school year. (Include any activities you were involved in even if you were not the main organiser. Include activities offered to the class even if it was not mandatory. Include extra-curricular activities only in #6.)

4. In 2003/2004, **how many times** during the entire school year did you involve your class(es) in Outdoor Education (**not including overnight experiences**)? (please circle)

a. 0-5 times

b. 6-10 times

c. 11-25times

d. 26 or more times

5. In 2003/2004, did you involve your class(es) in an **overnight** Outdoor Education experience? (please circle)

YES / NO

If YES, how many nights in total: _____

6. In 2003/2004, did you offer **extra-curricular** Outdoor Education in the form of a club, team or similar structure? (please circle)

YES / NO

If YES, please explain: _____

Appendix II Questionnaire

Certain aspects of teaching Outdoor Education to students make it less likely to be offered (barriers) while others promote Outdoor Education (bridges). Please rate how strong you perceive the following to be a barrier or bridge to you personally offering Outdoor:

7. Please circle the number you believe best describes each as a barrier or bridge to you personally offering Outdoor Education.

A negative rating means it makes you less likely to offer Outdoor Education.

-5 would be a very strong barrier to Outdoor Education. **-1** would be a weak barrier.

A positive rating means it makes you more likely to offer Outdoor Education.

+5 would be a very strong bridge to Outdoor Education. **+1** would be a weak bridge.

	Please circle the most appropriate rating										
	Strong Barrier										Strong Bridge
School Funding	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
School Fundraising	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Costs	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Costs	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Access to Outdoor spaces	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Paperwork	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Legal Liability	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Safety Concerns	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Safety Training	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
First Aid Personnel	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Outdoor Education Knowledge	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Subject Knowledge	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Subject Specialty	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Preparation Time	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Time Outside of School Hours Implementing Outdoor Education Activities	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Scheduling Conflicts	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Curriculum Time Restraints	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Prescribed Curriculum	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Philosophy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
School Tradition	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Parents	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Parent Volunteers	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Other Teacher Colleagues	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Support Staff	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Administration Staff	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

Appendix II Questionnaire

District Policy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
	<i>Please circle the most appropriate rating</i>										
	Strong Barrier										Strong Bridge
Unclear District Policy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
School Policy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Unclear School Policy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
School Board	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Union Policy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Unclear Union Policy	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Support Staffing Resources	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Staffing Resources	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Skills	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Knowledge	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Special Needs Students	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Interest	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Physical Health	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Mental Health	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Behaviour	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Student Gender Issues	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Teacher Information Resources	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Equipment Resources	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Transportation	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Proximity to Outdoor Areas	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Academic Gains	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Physical Health Gains	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Mental Health Gains	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Social Gains	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

8. Please include other factors that you view as barriers or bridges to offering Outdoor Education not included above. A table is provided below.

Other bridges or barriers	Strong Barrier	<i>Please circle the most appropriate rating</i>										Strong Bridge
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	

Appendix II Questionnaire

9. Please list your **strongest two barriers** to offering Outdoor Education and a short description of why they are barriers (please use barriers from the provided table or your own table).

Strongest **Barrier**: _____

Short description of what makes it a **barrier** (use point form if desired):

2nd Strongest **Barrier**: _____

Short description of what makes it a **barrier** (use point form if desired):

Appendix II Questionnaire

10. Please list your **strongest two bridges** to offering Outdoor Education and a short description of why they are bridges (please use bridges from the provided table or your own table).

Strongest **Bridge**: _____

Short description of what makes it a **bridge** (use point form if desired):

2nd Strongest **Bridge**: _____

Short description of what makes it a **bridge** (use point form if desired):

11. Optional Open-Ended comments:

A major focus of this study is to identify ways in which teachers can be supported when offering Outdoor Education to their students. In the space below please include **any information you feel may be useful in understanding the bridges and barriers to offering Outdoor Education**. Feel free to include specific bridges or barriers that deserve further explanation, any answers you would like to elaborate on, or any ideas you have that could be implemented on a class, school, district or provincial level to support teachers offering Outdoor Education.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

If you need more space, please use the back of this sheet.

Executive Summary-
BRIDGES AND BARRIERS TO OFFERING OUTDOOR EDUCATION TO GRADE
4-7 STUDENTS IN SCHOOLS

This study was guided by three questions of inquiry:

1. To what extent is Outdoor Education (OE) being offered to grade 4-7 school students in British Columbia?
2. What are the bridges (enabling factors) and barriers (hindering factors) grade 4-7 teachers perceive to offering Outdoor Education, and which are the strongest?
3. What can be done to weaken the barriers or strengthen the bridges to offering Outdoor Education in grades 4-7?

To explore these questions, one hundred twenty grade 4-7 classroom teachers were surveyed using a questionnaire. Teachers were required to record their perceptions pertaining to fifty bridge and barrier factors of offering OE programs on an 11-point scale (-5 indicating a very strong barrier and +5 indicating a very strong bridge). Open-ended responses provided insights about the strongest barriers and bridges, as well as how teachers felt OE programmes could be supported in school settings. Participants' quantitative responses were analysed using Microsoft Excel© while open-ended answers were employed to create thicker descriptions of phenomena and build suggestions to support OE.

Outdoor Education is a powerful medium for learning. Although teachers and students involved with outdoor experiences may be the first to advocate this notion, there is also a supportive literature base that grows stronger and more comprehensive with each passing year. One of the more telling studies is the extensive meta-analysis by Hattie et al.

(1997), which gives an overview of how outdoor education positively affects learners (producing an average effect size of .34). Among other advantages, OE proves especially effective for improving: leadership, teamwork, self-concept/ self-esteem and academic gains (Hattie et al., 1997; Cason and Gillis, 1994). Particularly important is the fact that “the effects appear[] to be retained over time” (Hattie et al., p.43), which is not the case for some other programming choices.

This creates strong impetus to include OE in school programming, yet OE seems noticeably lacking in schools. A comprehensive search through literature sources uncovers the latest accessible surveys of OE in B.C. schools to be by McClaren and Ramsay in 1972. The lack of a current survey is in itself a sign of OE’s meagre stature. Today, with the exception of a few isolated programmes, documented and structured OE for elementary students is almost non-existent. The disparity between OE showing such great promise and being implemented sparingly is cause for concern.

Data suggested Outdoor Education is indeed offered in many schools but often only to a limited degree. At this point it is important to note the definition of Outdoor Education given on the questionnaires:

Outdoor Education is when the process of learning takes place out-of-doors and the outdoor environment is meant to affect the learning.

Examples:

*Canoeing
Collecting insects from the school grounds
Park walks
Poetry writing in the out-of-doors
Outdoor Orienteering*

Non-Examples:

*Soccer on the sports field
Environmental Ed. in the classroom only
Indoor Aquarium visits*

An outdoor experience can range anywhere from a five-minute jaunt collecting specimens in the schoolyard, to twenty-four hour days of hiking and camping. This needs to be taken account of when comprehending these statistics.

From the analysis, we are able to estimate that teachers on average offered non-overnight OE experiences 5.4 times per year. On top of this, teachers on average offered 0.95 nights of OE, although the majority of teachers offer no overnight outdoor education. 12% of teachers identified that they offered some kind of extra-curricular OE.

The average bridge and barrier ratings were compiled and Figure 19 displays these results. Although each individual educator has unique perceptions of the hindrances to offering OE, certain barriers are common. Time is a menacing barrier and manifests itself in dominating factors such as: Curriculum Time Constraints, Teacher Time Outside of School Hours Implementing Outdoor Education, School Fundraising, Paperwork, Scheduling Conflicts and Teacher Preparation Time. Issues of Funding also loom large over offering prospective OE experiences: School Funding, Student Costs, Teacher Costs, School Fundraising and Transportation. The most debilitating hindrance perceived by teachers to offering OE was Legal Liability, which was further reinforced by related stumbling blocks such as Student Safety Concerns and Paperwork. Combined, these make up the bulk of what teachers perceive as barriers standing in the way of offering Outdoor Education experiences.

On a positive note, teachers also perceive powerful bridges to offering OE experiences. To begin, there are the bridges noticed in the Proximity of Outdoor Areas and Access to Outdoor Spaces. These are perhaps somewhat specific to the B.C. teaching context. Another source of strong support for teachers is found in other educational stakeholders. Many shone through as considerable bridges: Student Interest, Administration

Staff, Parents, Other Teacher Colleagues and Parent Volunteers. Yet the strongest bridges to offering OE, are factors that deal with the benefits to students learning: Social Gains, Mental Health Gains, Physical Health Gains, Academic Gains and Teacher Philosophy. These are the type of educational elements that should carry the greatest influence when programming decisions are made.

These bridge and barrier ratings, combined with participants' open ended answers, research literature, and my personal experience as a professional teacher provide suggestions for supporting elementary Outdoor Education teachers' efforts. Suggestions below are listed under issues that they address, although most suggestions address multiple issues.

To address issues of time:

- A team approach, where each member's skills and time are used as wisely as possible (Hertzog et al., 2000; Dufort, 1999; Deboer, 1995).
- Teachers should be given more time to work collaboratively. Scheduled preparation time overlapping with other educators can assist this.
- Knowledge and expertise of various OE interested groups should be used by teachers, and those groups should reach out to teachers in an efficient manner (ASCD, 1990; Olson, 1990).
- Efforts should be brought together to create Ministry and school district supported materials on OE. Possible mediums include: improved IRP's, a provincial and school district OE Handbook, or even brochures to get things started.
- Interested teachers should be involved in creating OE material and other supports to make use of their first hand understanding of classroom realities.

- OE coordinators should be employed on both district and provincial levels as stewards of OE materials and personal contacts to give teacher support otherwise limited through materials.
- Overnight facilities similar to that operated by #44 North Vancouver School District should be accessible to all students. This would change the face of overnight OE opportunities in B.C.
- OE professional development and teacher development needs to be more broadly offered to teachers and include hands-on practical workshops that address the bridges and barriers such as those noted in this study. Teachers need to be supported to integrate OE into their curriculum not how to increase workload.
- Curriculum documents need to more explicitly show teachers where OE could be employed and include greater recommended resources and strategies.
- Although teachers should be cautious, other governmental organisations, non-profit organisations and the private sector should be tapped as a viable resource for OE.

To address issues of funding:

- Appropriate funding should be made available for OE.
- If students are involved in fundraising, their participation alone should benefit them. The monetary gains should be secondary. Teachers and parents should not simply be 'cheap labour.'
- Resourceful transportation such as cycling, local transit and simply walking should be taken advantage of. When bussing is appropriate, it should be funded.

To address issues of legal liability:

- It should be made clear that there are risks of limiting education by not offering OE.

- The Ministry and school districts need to better clarify the legal responsibilities of teachers regarding OE. False information creating paranoia should be replaced by concise and straightforward legal advice.

To address the bridges to Outdoor Education

- The far-reaching advantages of Outdoor Education should be trumpeted widely through the various resources mentioned. Especially important are the noted bridges of: Social Gains, Mental Health Gains, Physical Health Gains, Academic Gains and Student Interest.
- Educators should be given moral support and recognised for the time and effort they devote to offering Outdoor Education.

Viewing these suggestions against the backdrop of information provided by this study, it seems evident that barriers can be pulled down and bridges erected. If we believe in the benefits of Outdoor Education, as the teachers in this study and the literature supports, interested stakeholders should implement these suggestions with optimistic enthusiasm.