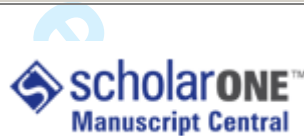


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**An Examination of the Responsibility Model in a New
Zealand Secondary School Physical Education Program**

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Review

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An Examination of the Responsibility Model in a New Zealand Secondary School Physical Education Program

For Peer Review

28 This study examined a six-month implementation of the Responsibility Model
29 in a New Zealand secondary school. Data were collected through interviews,
30 observations and student self-assessments.

31 The implementation was found to be successful in developing positive,
32 supportive and well-behaved classes in physical education. The majority of students
33 developed a greater understanding of personal and social responsibility and became
34 more personally and socially responsible in class. For most students, however, this
35 understanding was firmly associated with physical education and they generally
36 showed little understanding of the potential for the transfer of learning to other
37 contexts.

38
39 **Key words:** Adolescence; Physical education; Teaching

40 41 ***Introduction***

42 The belief that participation in physical activity will help in the development of
43 ‘good character’ has a long and consistent history. Examples of this belief in practice
44 include the introduction of games such as cricket and rugby football into the English
45 public school system (Redman, 1988) and the development of the concept of
46 ‘Muscular Christianity’ by the nineteenth century Christian Church (Meller, 1977).
47 Contemporary writers continue to champion physical activity-based programs as a
48 potential means of developing “good character” and of helping alleviate society’s
49 problems (Collingwood, 1997; Laker, 2000). While acknowledging the potential of
50 physical activity based programs, these writers generally consider that for programs to
51 be successful in achieving positive social development they need to offer more than
52 simply participation. To achieve positive results programs need to clearly identify

53 positive social development as a major priority and be carefully structured to
54 maximize the possibility that will happen (Salter, 1999; Shields & Bredemeier, 2001;
55 Tinning, 1993).

56 ***The Responsibility Model***¹

57 This study concerns one such approach, the Responsibility Model (RM),
58 developed with the explicit intention of teaching students to become more personally
59 and socially responsible (Hellison, 2003b; Hellison & Martinek, 2006). Integral to the
60 RM are five goals, goals that are often described as levels of responsibility. The five
61 goals/levels are identified as respect; participation and effort; self-direction; caring;
62 and transfer [of learning] outside the gym. The first goal, respect, relates to the
63 development of respect for the rights and feelings of others. While students may not
64 be participating fully, they can demonstrate respect by not interfering with the
65 teacher's teaching or the student's learning. Participation and effort concerns the
66 responsibility to make an effort to participate fully in learning including times when
67 the going is tough. Self-direction involves students demonstrating that they can take
68 responsibility for their own learning, set goals and work independently. The goal of
69 caring involves students helping, genuinely caring about and being sensitive and
70 responsive to others. Caring behavior may include taking a leadership role that will
71 contribute to the class's welfare. The final goal of transfer outside the gym involves
72 students taking their learning around personal and social responsibility and
73 implementing this learning in other contexts.

74 As a means towards achieving these goals the RM has a five stage teaching
75 structure. The first stage, counseling time, involves teachers spending time with
76 individuals within their classes in order to develop positive relationships. The second

¹ The Responsibility Model is also commonly referred to as Teaching Personal and Social Responsibility (TPSR)

77 stage, an awareness talk, describes an activity at the start of each lesson whereby time
78 is spent to refocus the students on the goals of the RM. The third stage, activity time,
79 relates to the physical activity part of the lesson, the time that addresses teaching and
80 learning around the physical education curriculum. During this time it is important
81 that the pedagogical approaches selected are appropriate for achieving the goals of the
82 RM. Towards the end of the lesson a group meeting occurs where the students, as a
83 group, have the opportunity to discuss events that have occurred in class. The lesson
84 concludes with reflection time, a time when individual students are asked to reflect on
85 their own behavior in relation to the goals of the RM.

86 Intertwined throughout the structure are a number of strong philosophical
87 beliefs or convictions about teaching and learning. These beliefs are conceptualized
88 by Hellison (2003a) as four themes - Integration, Transfer, Empowerment and
89 Teacher-Student Relationships. The first theme concerns the need for an obvious
90 integration of the levels and strategies of the RM into the physical activity part of the
91 lesson. It is important that learning about personal and social responsibility is seen by
92 participants to be an integral part of the lesson, rather than being an extra to the “real
93 lesson”. Transfer is concerned with the transfer of learning about responsibility to
94 contexts outside of the physical education classroom. The teacher needs to provide
95 opportunities that stimulate students to consider this transfer. During reflection time,
96 for example, students can be asked to think about how responsible their behavior has
97 been in other classes or at home. The empowerment of students refers to the transfer
98 of control and power from the teacher to the students. This transfer gives students not
99 only the opportunity to make decisions but also to experience the consequences of
100 their decision-making. The final theme, teacher/student relationships, concerns the
101 need for teachers to establish positive and respectful relationships with their students.

102 For this to occur, teachers must recognize and respect the individuality, strengths,
103 opinions and capacity for decision-making of each program participant (Hellison,
104 2003a; Hellison & Walsh, 2002).

105 Readers wishing to obtain a deeper understanding of the RM will find valuable
106 information in a number of Hellison's publications (e.g. Hellison, 2003a, 2003b).

107 ***Previous research***

108 While the RM is often associated with at-risk and/or under-served youth it
109 was originally developed for, and has a long association with, school physical
110 education (Gordon, 2007; Hellison & Martinek, 2006; Mrugala, 2002). For many
111 physical education teachers the RM is considered to be a viable and effective
112 pedagogical approach to the teaching of their subject. This acceptance has not
113 eventuated because of strong research support for the model in practice, but
114 rather through the experiences of teachers using the model in their classrooms,
115 observation of other teachers and through word of mouth. The acceptance of
116 new approaches to teaching in this way is not unusual, with the process often
117 being referred to as "teacher tested" (Siedentop, 2000).

118 While acknowledging the reality of the "teacher tested" status of the RM,
119 the limited research support to date has prompted concerns about the validity of
120 claims of the model's success (Newton, Sanderg, & Watson, 2001). The extent of
121 research on the model in the physical education context that has been
122 disseminated to date is limited; with a particular shortage of research that
123 examines implementations by classroom teachers rather than by outside
124 lecturers/teachers (Li, Wright, Rukavina, & Pickering, 2008; Wright & Burton,
125 2008).

126 **Concerns about a lack of research directly applicable to teaching and**
127 **learning in physical education are not restricted to the RM, however, but are**
128 **symptomatic of a wider movement away from research in practice (Lawson,**
129 **2007; Ward & Doutis, 1999). Macdonald et al. (2002), in their discussion on**
130 **contemporary research in physical education, expressed their concerns when**
131 **they wrote “... in physical education pedagogy research today ... we desperately**
132 **need to find ways to instruct children, prepare teachers, and assess physical**
133 **education programmes in schools, while many [researchers] in the pedagogical**
134 **research community pursue quite different interests” (p. 137).**

135 **This study was designed to go some way towards addressing a number of**
136 **these limitations by choosing to examine an implementation of the RM in a**
137 **normal physical education program within a public school, and where the classes**
138 **are being taught by a full-time member of the physical education staff. The**
139 **study was focused on examining the reality of the RM in practice and**
140 **investigating the teaching and learning that occurred from the perspectives of**
141 **both the teacher and the students.**

142 **An examination of the range of methodologies typically used in research on the**
143 **model established that there was a predominance of descriptive case study research**
144 **and a lack of research utilizing other methodologies (Compagnone, 1995; Georgiadis,**
145 **1992; Martinek, Schilling, & Johnson, 1999). This predominance of case study**
146 **research suggests that there is a need for the RM to be examined through a wider**
147 **range of methodologies. This suggestion is not to challenge the veracity of the**
148 **epistemologies underpinning the previous research or to suggest that there is a ‘best**
149 **way’ of verifying the worth of the RM. It is, however, an acknowledgment that**

150 alternative approaches to examining the RM offer different viewpoints that have the
151 potential to strengthen our understandings of the RM in practice.

152 ***Ethics***

153 An ethics application was submitted to, and approved by, the Massey University
154 College of Education Ethics Committee. This application gave due consideration to
155 the ethical implications raised by the research, including the issues of confidentiality,
156 anonymity and the need to protect participants from physical or psychological harm.
157 All participants received a letter of information and were asked to sign a permission
158 slip giving their informed consent.

159 ***Research design***

160 This study involved a mixed methodology combining case study and quasi-
161 experimental research methods. When making the decision to use mixed methods the
162 researcher was cognizant of the varying views held by writers, particularly concerning
163 using methods derived from different epistemologies. While this article does not enter
164 this debate the contested nature of the discussion is acknowledged.

165 In this study, there is, firstly, an examination of two classes that were taught
166 physical education based on the RM using a case study approach. The lack of research
167 on the RM, when taught by regular teachers in normal secondary school physical
168 education programs, makes this examination both relevant and of interest to physical
169 education teachers. A quasi-experimental methodology was included in the research
170 design with the introduction of two comparison classes. In an effort to control for
171 issues of internal validity all four classes were selected from the same year group and
172 academic stream, were taught by the same teacher, and received the same research
173 scrutiny.

174 **Participants**

175 This study was situated in a small rural secondary school in New Zealand, a
176 South Pacific country of four million people. The school roll consisted of 493 students
177 of whom 53% were female and 47% were male. Four classes, two from Year-9 (13
178 and 14 years of age) and two from Year-10, (14 and 15 years of age) were selected for
179 the study. The teacher chose the Year-9 (9RM) and the Year-10 (10RM) class that she
180 perceived to be the most difficult, to be taught physical education based on the RM.
181 This was a subjective decision based on her judgment of the quality of the
182 relationships among students, the general behavior of the classes and her perception of
183 the class's engagement with learning in physical education. Both Year-9 classes
184 (9RM and 9CO) had 18 students while the Year-10 RM class (10RM) had 28 students
185 and the Year-10 comparison class (10CO) had 29 students. All four classes were co-
186 educational and continued with the timetabled curriculum for the year. The topics
187 covered during the six month period of the implementation included dance,
188 gymnastics, touch rugby and minor games. The only major modification to the
189 standard curriculum was the introduction of a Sport Education module in touch rugby
190 for 10RM towards the end of the school year. All classes received two one-hour
191 classes of physical education per week.

192 The teacher, Sarah (pseudonym), was a young teacher in her third year of her
193 first teaching position. Sarah was introduced to the RM during her university studies
194 and had implemented the model with a physical education class the previous year.
195 This experience led to her approaching the researcher for help in introducing a more
196 extensive implementation. Sarah had a philosophical affinity to the RM and felt
197 comfortable with many of its underpinning beliefs.

198 **Data sources**

199 A variety of data were collected throughout the study. Sarah, who taught all
200 four classes, was interviewed eight times in total. These interviews ranged in length
201 from twenty minutes to an hour and all were allowed to continue until they reached
202 their natural conclusion. The first two interviews occurred during the initial planning
203 stage. During the implementation Sarah was interviewed monthly until the final
204 month (December) when two interviews were completed.

205 For the student interviews Sarah, using purposeful sampling (Bloor, Frankland,
206 Thomas, & Robson, 2001) selected twenty-four students, six from each of the four
207 classes, to be interviewed. In line with the principle of maximum variation (Seidman,
208 1998) students were selected in accordance with her perception of their attitude to,
209 and behavior in, physical education and the school generally. Two of the selected
210 students from each class struggled to behave in physical education and were often in
211 trouble at school; two were selected as representing average students; the final two
212 students were selected as students with positive attitudes who generally behaved well
213 in class and around the school. The students were interviewed on three occasions,
214 once each in August, October and December. At the beginning of each interview
215 students were reminded that the information they gave was confidential and would not
216 be shared with the teacher. Students were interviewed in groups of four in a warm,
217 quiet room in the school administration building and all interviews were recorded on a
218 small visible audio-tape machine.

219 This study wished to examine the realities of the RM when implemented by a
220 regular physical education teacher within their normal teaching practice. The observer
221 (researcher) therefore acted as a non-participant in the belief that this would offer a

222 more authentic examination of the model in this context. All four classes were
223 observed on a regular basis (49 observations in total).

224 The reflection sheets, completed at the conclusion of the study, asked all
225 students from the four classes to reflect on what they considered the physical
226 education program had been attempting to teach and what they felt they had learned
227 from the program. Students were also asked to reflect on their behavior in class. The
228 reflection sheets were distributed and collected in during the initial stages of a
229 physical education lesson. Students were supplied with pens and given as much time
230 as they needed to fill in the forms. Once they had completed the form, students were
231 asked to remain sitting until all members of the class had completed the process.

232 ***Data analysis***

233 The predominant epistemology that informed the analysis of data was that of
234 constructionism. This epistemological orientation has a number of implications in
235 regards to interpretation and the development of understanding. These implications
236 are considered in the discussion section.

237 The analysis of the interviews required the construction of categories in which
238 to assign substantive comments (Gillham, 2000). The development of these categories
239 occurred in two stages. The first occurred early in the data analysis with the
240 establishment of eight major headings. These initial headings were developed from a
241 combination of the initial analysis of data and assumed areas of interest. The second
242 stage involved the identification of additional categories that emerged during the
243 process of data analysis. It was from this process that the main themes and
244 understandings were generated. The analysis of the reflection sheets also involved the
245 development of categories from the data. Written notes were kept of all class
246 observations. These notes were used to authenticate the implementation of the RM

247 and to establish that a clear pedagogical differentiation between the RM classes and
248 the comparison classes had occurred. The descriptions of key incidents recorded
249 during the observations were analyzed to identify common themes and understandings
250 which were used to gain a greater understanding of the processes that occurred during
251 the implementation.

252 ***Processes used to authenticate the pedagogical approaches***
253 ***used***

254 When examining a pedagogical model it is important to establish that the
255 application of the model in practice showed fidelity to the model in theory. At present
256 there is no validated instrument available that can be utilized for this purpose for the
257 RM. In this study three sources of data, classroom observations and teacher and
258 student interviews, were used to establish this fidelity in relation to how the RM
259 classes were taught. The data established that the RM classes followed the suggested
260 RM lesson format (Hellison, 2003b) on all but a few occasions and that three of the
261 four themes identified as needing to be present in RM programs, teacher-student
262 relationships, integration of the RM with curriculum teaching and student
263 empowerment were all present in the RM classes. The fourth theme, transfer, was
264 present but did not receive the same emphasis as the other three. During interviews
265 students made constant reference to both the structure and the intent of the model.
266 These comments showed a developing understanding of the RM and gave a clear
267 indication that it was an overt part of the physical education program.

268 These data were also used to confirm that a clear pedagogical difference occurred
269 in the teaching of the comparison classes. It was clear that the comparison classes were
270 taught physical education in a program that was not based on the philosophy
271 underpinning the RM and did not involve any of the structure integral to the RM.

272 **Findings**

273 The findings for this study are presented in six sections: student learning in
274 relation to personal and social responsibility; student engagement with the physical
275 education curriculum; classroom behavior; transfer of learning; teacher perceptions;
276 and transferability of findings.

277 **Student learning in relation to personal and social responsibility**

278 The analysis of students' comments on what they considered that they had learned
279 in physical education during the six month implementation period identified that there
280 were distinct differences between the students in the RM classes and those in the
281 comparison classes at both Year-9 and Year-10 levels. At Year-9 the eighteen students
282 from 9RM gave a total of 35 comments (see Table 1) which showed an equal spread
283 between sport and fitness and responsibility related outcomes. This would indicate that
284 the program for 9RM was successful in achieving the twin goals (Hellison, 2003b) of
285 learning associated with the traditional outcomes from physical activity programs and the
286 goals related to personal and social responsibility. The students in 9CO in contrast
287 considered that their learning was predominantly around sport and fitness with only six
288 comments being related to learning about responsibility.

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Place Table 1 About Here

293 A comparison between the two Year-10 classes showed an even greater difference
294 in emphasis (see Table 2). In 10 RM a high number (88%) of comments were related to
295 learning around personal and social responsibility and little comment was made of
296 learning related to sport and fitness. The results for 10CO show a reversal of this with
297 sport and fitness (87%) being seen as the predominant area of learning.

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Place Table 2 About Here

302 **Student engagement with the physical education curriculum**

303 An important factor when considering the introduction of the RM into school
304 physical education is the impact on students' engagement with the physical education
305 curriculum. From Sarah's perspective, students' levels of engagement in the physical
306 education curriculum, for the two RM classes, improved from early in the
307 implementation. This improvement continued until, by the end of the program, her
308 judgement was that both RM classes were engaged in physical education at an
309 exceptional level:

310 The engagement in the RM classes was certainly improved and this was often
311 initiated by the students. They were quickly on task and also had the ability to
312 stay on task for a longer period of time [than the comparison classes]. This is I
313 suppose because I was not having to interrupt often for reasons of management
314 rather than of teaching and coaching.

315 One incident that clearly demonstrated the degree of engagement students had
316 in physical education occurred when it was announced that, due to industrial action,
317 school was to be cancelled on the following Wednesday. Sarah reported that the
318 students were very disappointed and were attempting to organize physical education
319 for that day. While the lesson did not eventuate, due to the canceling of the school
320 buses, the students' attempt to organize class for a day on which they did not have to
321 be at school demonstrated an unexpected level of commitment to and engagement in
322 the physical education program.

323 Sarah did not identify a similar level of engagement from the two comparison
324 classes observing that their level of engagement remained relatively consistent. This

325 judgment was supported by the classroom observations which concluded that while
326 the comparison classes showed reasonable levels of engagement, these levels
327 remained basically unchanged throughout the implementation period.

328 **Classroom behavior**

329 The impact of the RM on student behavior is an area that has received some
330 research interest. A number of studies have identified that programs based on the RM
331 have produced an improvement in the behavior of the students, and that teachers have
332 generally reported an improvement in the “feel” of their classes (Buchanan, 2001;
333 Cutforth, 2000; Georgiadis, 1990; Hastie & Buchanan, 2000). In some cases, the wish
334 to improve classroom behavior has been the prime motivation for teachers introducing
335 the RM into practice (Mrugala, 2002). The managing of children in class is a
336 pragmatic concern for many teachers and the impact of the RM on student behavior is
337 a prime determinant on whether teachers would consider the model to be successful.

338 In this study, Sarah first identified an improvement in classroom behavior with
339 the RM classes during the first interview four weeks into the implementation. These
340 changes included fewer incidents of minor conflict with individual students and an
341 increased tendency for students to be responsible for equipment. These improvements
342 had led to a better atmosphere in the class and the degree of change in such a short
343 time had been both a surprise and a source of some excitement for her. This
344 improvement in behavior continued until the end of the implementation when Sarah
345 described both RM classes as being extremely well behaved. The observation notes
346 supported Sarah’s judgment of continuing improvement and identified that on a
347 number of occasions the students’ behavior was excellent with a sense of positive
348 purpose that was noteworthy. Sarah also identified an improvement in the behavior of

349 the comparison classes but was very clear that it was not of the same magnitude as
350 that of the RM classes.

351 As part of the reflection sheet, completed at the end of the year, students in all
352 four classes were asked about their behavior in physical education. When asked
353 whether the program had impacted positively on the way they thought about their
354 behavior in class, a clear majority of students (25/33) in the RM classes felt that it
355 had. When students from the comparison classes were asked whether their behavior in
356 physical education had changed, 27 of 44 reported that their behavior had improved.
357 Students in all four classes were also given the opportunity to give a written comment
358 about whether participating in physical education had led to a change in their
359 behavior. Table 3 presents a selection of comments indicative of those supplied by
360 the students.

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362 Place Table 3 About Here
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365 The students' comments showed a fundamental difference between the students
366 in the RM classes and the comparison classes. The comments from the former tended
367 to show more global thinking with comments around such areas as self-control,
368 thinking about behavior and being more responsible. The comments from students in
369 the comparison classes appeared more pragmatic and more closely related to the
370 practicalities of the physical education classroom.

371 It is, of course, difficult to equate better behavior with specific learning about
372 personal and social responsibility. What can be said, however, is that the belief that
373 better behavior occurred in the two RM classes was supported by the professional
374 judgment of Sarah, comments from the students, and observations over a six-month

375 period. That the implementation of the RM was a factor in these changes is supported
376 by both the consistent results from previous research and the absence of an equivalent
377 improvement in behavior in the two comparison classes in this study.

378 **Transfer of learning**

379 The degree to which learning about personal and social responsibility is
380 transferred to other contexts is an important outcome for the model. The goal of
381 transfer of learning was added to the RM after the realization developed that this was
382 the underlying reason for its creation (Hellison, 2003a). Research on the RM has
383 reported a divergence of results in the area of transfer of learning with some studies
384 (Cummings, 1997; Hellison & Wright, 2003) finding strong evidence of this
385 occurring, while others found either weaker or no evidence (Hellison & Walsh, 2002).

386 For the vast majority of students involved in this study no indication was given
387 that they considered that their learning in physical education was applicable in other
388 contexts. In the final interview, students were asked if they had used what they had
389 learned in physical education in other classes or outside the school. One answer was
390 representative of many others:

391 No ... cause it doesn't work in other classes because we don't have a choice
392 what we learn, it's different in PE you are running around having a good time
393 but in other classes you are sticking to the routine.

394 Two students from 10RM were very clear, however, that the learning had had an
395 impact at home and at work. For one the RM had influenced him in a number of
396 areas:

397 Yeah and outside of school and everything. I mean, everything you can do can
398 go back to that [the RM]. Everything in life really. At work you can say, Oh
399 yeah. I didn't really work that good. So the next time I try harder.

400 A second student also believed that the RM had changed her behavior at home and
401 commented:

402 It's like, I don't think about the posters but I think about what's on them. Yeah,
403 they're in my, they're in your brain ... Sounds a bit weird but I don't know how
404 to explain it. Yeah, they've got stuck in your brain.

405 The majority of student comments would suggest, however, that despite the
406 stated intentions of Sarah to address transfer, and the integral place that transfer has in
407 the RM, few students were cognizant of the connection between what they were
408 learning in physical education and its applicability to other contexts.

409 While the study was interested in the students' understanding of transfer, there
410 was also interest in the behavior of the classes in their other subjects as a potential
411 indication of a transfer of learning in practice. Of particular interest was the behavior
412 of 10RM, who, while they demonstrated improved behavior in physical education,
413 had simultaneously been displaying steadily deteriorating behavior in their other
414 classes. The students readily accepted that this was occurring with one comment
415 offering a possible insight into the reasons: "Yeah. I think it's the way we get taught
416 in PE. It's more, more like they're giving us more responsibility and in other classes
417 we're treated like we're little kids." It should be noted that the experiences of 10RM
418 were not paralleled by 9RM who did not have similar problems.

419 **Teacher perceptions**

420 For Sarah, the implementation of the model led to a reaffirming of her beliefs
421 about the importance of a humanistic classroom and of the need for teacher–student
422 relationships to be based on mutual respect. In her final interview, when discussing
423 what she thought the RM brought to her teaching, she commented "what it brought to
424 my teaching is the development of positive relationships within my class." It is

425 interesting to note that Sarah did not experience a similar improvement in teacher-
426 student relationships with students in the two comparison classes. This lack of
427 improvement was noted:

428 By the end of the year my relationship with the non RM [comparison] classes
429 had developed no more than at the start and possibly I was a little frustrated
430 with this lack of progress in comparison to the RM classes.

431 Many of the teachers and leaders involved in previous studies involving the RM
432 commented that it was a pedagogical approach that they would use in their future
433 practice (Cutforth, 1997; Martinek et al., 1999; Parker & Hellison, 2001). Sarah
434 reported similar sentiments. In her final interview, when asked what she felt about the
435 RM as a pedagogical approach to teaching physical education, her reply left little
436 doubt of her feelings: “Absolutely, powerful, in fact the question is by not teaching
437 the RM are you knowingly withholding the opportunity to succeed [for the students].”

438 **Transferability of findings**

439 Transferability is concerned with the degree to which the understandings
440 generated from qualitative research can be generalized to other contexts. While many
441 would argue that the transferability of results is not the intention of case study
442 research, this issue becomes important where, as is the case with research on the RM,
443 the results from case study research may be taken as encouragement to introduce the
444 model into other contexts.

445 In this study, two methods were used to address the issue of transferability. The
446 first was based on the comparative method which considers that where a number of
447 case studies, over a period of time and at different sites, reported similar outcomes,
448 this justified the belief that the findings can be generalized to other similar contexts
449 (Silverman, 2000; Yin, 1994). Previous research had identified a number of learning

450 outcomes in relation to the RM (Buchanan, 2001; Hellison & Martinek, 2006;
451 Mrugala, 2002) and this study attempted to establish whether these were replicated
452 when the RM was implemented into a secondary school physical education program.

453 The second method used to address transferability was the inclusion of the two
454 comparison classes. It was anticipated that comparing and contrasting the outcomes
455 from previous research on the RM with those from the RM classes and the
456 comparison classes would contribute towards an understanding of the impact of the
457 RM in physical education classes and on the issue of transferability.

458 When comparing the outcomes from previous research (Table 4), it is clear that
459 a number of outcomes were replicated in the RM classes and that these outcomes did
460 not occur in the two comparison classes. These included outcomes of specific
461 importance in the school context, outcomes such as improved student behavior,
462 improved engagement with the curriculum, better student relationships and
463 improvements in the ability of students to be self-directed in their learning. While
464 these results cannot be considered to establish causation, they do offer a degree of
465 support for those who believe that the outcomes identified in previous research are
466 transferable to the school physical education context.

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469 Place Table 4 About Here

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472 ***Discussion***

473 Before discussing what understandings can be obtained from this study it is
474 important to consider the limitations and restraints integral to research situated in the
475 constructivist paradigm. It should be acknowledged that the beliefs and views
476 expressed by the participants are constructed through their experiences and world

477 views. In a similar manner it needs to be acknowledged that the interpretation process
478 itself is influenced by the beliefs of the researcher. This understanding does not negate
479 understanding derived from interpretation as it is accepted that while no particular
480 interpretation can be claimed as the correct one, interpretations can be both valuable
481 and useful. It is also important, however, to acknowledge that the views and
482 experiences that participants bring to the process often add an insight and
483 understanding that may be unavailable to others. In this study, situated in the reality of
484 practice, the world view of the teachers and students needs to be valued as these are
485 the legitimate inhabitants of this particular “swamp of practice.” As Crotty (1998)
486 stated, “different people gain a different meaning even from the same phenomenon”
487 (p. 46), and the meaning given by Sarah and her students is their meaning and must be
488 valued.

489 What, then, can be taken from this study? Firstly, the study established that the
490 RM can be successfully implemented into a secondary school physical education
491 program by a regular physical education teacher. While the findings from research in
492 both community and out-of-school programs has identified a number of successful
493 outcomes, a physical education class in a secondary school setting differs in a number
494 of important ways. Of particular importance is that a physical education class consists
495 of students who are required to attend and who move as a discrete unit within the
496 school, five or six periods a day, five days a week for the full year. This continuity
497 means that a class unit takes their experiences in the RM with them throughout the
498 day and into the classrooms of a number of other teachers. Other differences include:
499 the requirement for the teacher to ensure that specific curriculum goals are met; the
500 inability of the group to exclude students who do not respond to the RM philosophy
501 or cause problems; the generally large class sizes and the potential different

502 motivations for teachers introducing the RM into their classes as opposed to the
503 motivations behind voluntary groups run out of school.

504 One issue specific to the secondary school context relates to potential tensions
505 between the RM teacher/class and other teachers who teach the RM classes where the
506 pedagogy associated with the RM is at odds with the more traditional approaches to
507 teaching and classroom management present in the school. This issue is related to the
508 process of student empowerment, a process that can be in direct conflict with the
509 predominant culture of many schools and physical education programs. The
510 empowerment of students is, however, a central tenet in the RM philosophy and
511 clearly needs to occur in any implementation of the model. Conflict between classes
512 taught with the RM and their other teachers is not, of course, an inevitable
513 consequence of implementing the RM into a school environment. The results for
514 10RM would suggest, however, that discussing the implementation of the RM with
515 other teachers who will be teaching the classes may well be a prudent measure.

516 While this study makes some progress towards answering questions relating to
517 the realities of implementing the RM into the school context, it also generated others.
518 The first concerns the appropriateness of teaching the goals of the model as a
519 hierarchy of levels rather than as a number of individual goals to be experienced and
520 achieved as appropriate. Presenting the goals as levels has some advantages. Hellison
521 et al. (2000) commented that “Taking on the five levels at once is asking a lot of
522 students [and that] one way to address this issue is to present the responsibilities as a
523 loose progression of levels” (p.40).

524 While this view has some pragmatic appeal there are also a number of
525 disadvantages, including the fact that teachers sometimes use levels to label students,
526 and that they may also ignore Level five (Transfer outside the gym) which cannot be

527 observed within physical education class time (Hellison, 2003b). A central difficulty
528 with the concept of levels is the possibility that students will come to believe that they
529 need to “successfully” achieve at one level before they can move on to developing the
530 next. The belief that caring, for example, is something to be achieved only after
531 respect, effort and self-direction have been demonstrated is a constriction on both
532 students’ development and the overall potential of the model.

533 Shields and Bredemeier (1995), when discussing the place of levels, made the
534 observation that, if it was necessary to have the goals presented as cumulative levels
535 then they could, in fact, be arranged in any number of ways; with caring (Level four),
536 for example, easily being placed between respect (Level one) and effort (Level two).
537 Hellison (2003b) has also commented on this issue and while he acknowledged that
538 the concept of levels was used extensively in practice, he noted that personally he had
539 “abandoned the use of cumulative levels within a few years ... As I dug deeper into
540 each of the levels and began to appreciate their nuances, it seemed best to treat each
541 separately” (p. 29).

542 A second question arose around the impact of the learning associated with the
543 RM on students in other areas of their lives. Lave and Wenger’s (1991)
544 conceptualization of communities of practice (COP) offers the potential to place the
545 RM in the paradigm of situated learning. Kirk and Macdonald (1998) considered that
546 one of the major problems with contemporary physical education was the
547 incongruence between the learning in school physical education and the COPs for
548 which students are theoretically being prepared to participate. They identified the RM
549 as one of a limited number of models that were considered to be attempting to
550 prepare students for successful participation.

551 Kirk and Macdonald's comments raise the interesting question of the implications
552 when the learning from the RM is incongruent with the COPs in which students are
553 actually participating. There is an underlying assumption that the COPs, for which the
554 RM is preparing students, are receptive to and value the outcomes being developed. It
555 should be acknowledged, however, that the values promoted by the RM are but one
556 set of constructed values available to participants in our communities. The set of
557 values promoted by the RM, therefore, has the potential to be disadvantageous for
558 some students participating in COPs where caring for others, for example, may be
559 seen as weakness and lead to negative consequences. In many business COPs, a value
560 system that places caring for others as a priority could well result in disadvantage and,
561 in some street-based COPs, caring could have potentially dire results for students who
562 attempt to live these values. The issue of the compatibility of the learning around
563 personal and social responsibility with the reality of their lives outside of the
564 classroom offers a potentially rich area for discussion during group and reflection
565 time.

566 A final question relates to the degree to which the outcomes achieved with the
567 RM can be attributed to the humanistic and pedagogical approaches associated with
568 the RM rather than the RM itself. The RM gives students the opportunities to practice
569 skills such as self-directed learning, decision-making, being personally responsible
570 and helping others. It also places value on establishing teacher-student relationships
571 that are respectful and positive. These opportunities are created as an integral part of
572 the physical education program and are underpinned by the learning associated with,
573 and the structure of, the RM. It is interesting, then, to contemplate to what degree the
574 positive outcomes observed in the RM classes are the result of the reconstituted
575 relationships and the specific pedagogies used rather than the RM itself. How

576 different would the results be in a physical education program that encouraged
577 decision-making and student empowerment and that used a number of the same
578 pedagogical approaches but did not underpin the program with either the structure of
579 the RM or the specific teaching and learning about personal and social responsibility?

580 This current study would suggest that the RM has been successful in going
581 some way towards meeting Hellison's (2003a) plea to put kids ahead of physical
582 activity and to teach for personal and social development. The question then becomes
583 "Is it important?" Perhaps the answer can be seen in history where "educated men"
584 have often behaved in the most immoral and inhuman ways. We need to look no
585 further than Nazi Germany, for example, to see a stark illustration that education
586 offers no guarantee of humanity.

587 What then is the future for the RM in physical education? Are the humanistic
588 values promoted by the model truly valued or will they be sidelined by the more
589 easily taught and measured technocratic outcomes traditionally linked to physical
590 education? The decision to embrace the potential of the RM is neither a simple nor an
591 easy one to make. It requires a belief that the outcomes associated with the model are
592 important, a vision that sees they can be met and the courage to try.

593 Perhaps an equally important question for teachers is "Can I make a
594 difference?" While no definitive answer can be given, the following paragraph written
595 by Sarah three years after the completion of the study, perhaps offers a glimpse at
596 what can be:

597 Thanks, this was an awesome opportunity which I feel has really challenged me
598 to find my own style of teaching and formed a strong backbone for my own
599 philosophy of teaching and basically why I am a teacher. If I can help spread the
600 word – let me know. Since this [study], I have implemented the model and have

601 had even more success both for the students but as importantly for myself and
602 my professional practices. It is really powerful stuff to have such an effect on
603 young people and I do feel that I have made a difference.

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680 **Table 1: Students' comments on learning in physical education**
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Comments related to	9RM		9CO	
	Number of comments	% of total comments	Number of comments	% of total comments
Sport or fitness	15	43%	28	77%
Personal responsibility	10	29%	0	0%
Social responsibility	9	26%	6	16%

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For Peer Review

683 **Table 2** Students' Comments on Learning in Physical Education

Comments related to	10RM		10CO	
	Number of comments	% of total comments	Number of comments	% of total comments
Sport or fitness	3	6%	48	87%
Personal responsibility	20	40%	0	0%
Social responsibility	24	48%	2	4%

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For Peer Review

685 **Table 3** **Students' Written Comments on Behavior in Class**

Class	Comments
RM classes	<p>It made me behave better without supervision.</p> <p>Yes it made me realize how I should act and speak.</p> <p>Yes I have more self control and I don't get frustrated real bad any more.</p> <p>No not really ... hell no.</p>
Comparison classes	<p>Yes it has because I have been participating more.</p> <p>No I have been reasonable all year.</p> <p>I don't think so because every thing I do I seem to get wrong.</p> <p>Yes because we have done funner (sic) sport that interests me.</p>

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687 **Table 4** Summary of Comparative Research Findings

Findings from previous research	Findings from RM classes	Findings from comparison classes
Improvements in participants:	Improvements in participants:	No improvements in participants:
Self-control	Self-control	Self-control
Self-direction	Self-direction	Self-direction
Helping others	Helping others	Helping others
Participants generally positive towards the opportunities to make decisions for themselves	Students generally positive towards the opportunities to make decisions for themselves	No comments received about opportunities to make decisions for themselves
Many participants enjoyed the programs	Many students enjoyed physical education	Many students enjoyed physical education
The behavior of participants showed steady improvement	The behavior of students improved greatly	The behavior of participants did not improve greatly
Participants' levels of engagement increased	Students' levels of engagement increased	Students' levels of engagement did not increase

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