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## SYMPOSIA

Reviewing Curriculum in the Health and Physical Education  
Learning Area: A Model for Professional Development and  
National Review of the Health and Physical Education  
Statement and Profile for Australian Schools

Auditing Curriculum in the Health and Physical Learning Area:  
the Implementation of the National Statement and Profile

Dr. Doune Macdonald Dr. David Kirk  
Department of Human Faculty of Health and  
Movement Studies Behavioural Sciences  
The University of Queensland Deakin University  
St. Lucia, 4072. Geelong, 3217.

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team consisting of The University of Queensland, Deakin University,  
Queensland University of Technology, Queensland Department of  
Education, and Victorian Board of Studies and Directorate of School  
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### Abstract

A questionnaire relating to the curriculum field Health and Physical  
Education in

Queensland and Victoria involved 490 schools and returned 801 teacher responses. Teachers in a random sample of primary and secondary schools were asked to identify their professional development experience and needs, the effectiveness of their teaching of learning outcomes across the strands and levels identified in the National Profile in Health and Physical Education, and methods of assessing, recording and reporting on student achievement and progress.

This presentation identifies those curriculum areas that teachers feel

more or less comfortable with, and analyses those responses in terms of their discipline backgrounds and their professional development experience. Some strengths appear to include movement skills, physical fitness, and skill development for play and sport, whilst perceived weaknesses include the teaching of sexuality and ethics.

Thus, implications of the audit for the effective implementation of the National Statement and Profile in Health and Physical Education are considered.

## Introduction

The key learning area Health and Physical Education (HPE) is a diverse field which embraces the traditional subject areas such as Physical Education (PE), Health Education (HE), Home Economics (HEc), Outdoor Education (OE), Religious Education (RE), Human Relationships (HR), Science (SC) and personal development subject matter. Both anecdotal and empirical evidence (Kirk & Gray, 1990; Senate Standing Committee, 1992) suggest that some "subjects" within this field (egs. PE, HE) presently lack a clear sense of definition, subject matter knowledge, and pedagogical and professional expertise. With the incorporation of such an array of subject matter knowledge, alongside the "subjects", into the

single field, one could argue that questions of teaching priorities, expertise and professional development would be problematic. More specifically, understanding procedural issues surrounding who teaches HPE, and how these teachers approach their responsibilities, is central to the successful introduction of the field into Australian schools.

In order to understand how the diverse range of primary and secondary teachers interact with the field, an audit of current practice is being undertaken as part of the National Professional Development Project for teachers of HPE. The audit involves monitoring current practices in terms of program development and implementation, subject matter, student assessment and recording, and teacher confidence and professional development, via questionnaires, teachers' reflective journals, reviews of literature, and participant observations. This paper focusses upon the early phases of data analysis from questionnaires which were distributed randomly to teachers in Victoria and Queensland in June, 1994.

Within the context of the NPDP project, the purposes of the questionnaire were to:

1. establish baseline data with which comparisons may be made throughout the project;
2. map current practice.

In order to achieve these, the questionnaire sought to gather information on:

1. learning outcomes for students across the content sub-strands identified in the HPE Profile;
2. teachers' professional development experience with respect to the field;
3. the teaching time allotted to the various content sub-strands within the HPE field;
4. the methods used to assess, record, and report on student achievement and progress.

Given the specialist/generalist teaching conditions for primary and secondary teachers, separate questions were prepared for these populations.

However, both questionnaires closely followed the structure and language used in the HPE Statement and Profile in order that teachers were required to think in terms of the documents, thereby giving the project a relevant reference point. Accordingly, the organizing sub-strands were:

- human growth and development
- sexuality
- movement skills
- skill development for play and sport
- physical fitness
- physical recreation
- food and nutrition
- individual and community health
- consumer health
- environmental health
- safety
- human relationships
- ethics
- personal and cultural identity

Responses were in the form a three, four or six point Likert scale. To ensure validity in the interpretation of the data arising from the questionnaire, teachers involved in the associated trial projects worked through the questionnaire and recorded any difficulties and issues surrounding interpretation of the questions.

#### Sample Population

Questionnaires were sent to schools which were randomly selected by computer in Queensland and Victoria. Schools variables included primary/secondary, government/non-government, rural/metropolitan, and size. School principals

were asked to distribute the questionnaires to "appropriate staff". Teachers completing the questionnaire, were asked to respond while keeping in mind one particular year level. There was a 50-60% response rate.

Table 1 indicates several demographic parameters of the sample population. The

majority of respondents were primary teachers (79.8%) and women (65%). They were generally experienced teachers with 69.4% having taught for between 5-20 years. Those teaching in primary schools were less stable in terms of the number of years teaching the year level for which they were answering the questionnaire than were the secondary teachers. Within the secondary respondents, the majority (67.7%) identified their major area of expertise as PE, followed by HE (24.2%) and HEc, HR and OE accounting for approximately 14.3% of the secondary teachers expertise. HEc and RE were identified as areas in which the secondary population of teachers, both male and female, had least expertise.

Of the primary school generalists, there were more than double the numbers of women than men. Amongst the secondary specialists, women outnumbered men in terms of acknowledgement of expertise in human relationships, home economics, and health education. The patterns of expertise suggested fairly stereotypical identification with subject matter.

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Table 1. Number of respondents according to school level and area of expertise.

	Secondary		Primary		HE	SC	HEc
	HR	OE	PE	RE			
Females	26	419	52	30	1	21	19
Males	4	198	56	9	1	0	10

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We are aware of the representative limitations of the sample and offer the following analysis as preliminary data from which some interesting

trends may be hypothesised. A wider sample will be surveyed if the project is extended in 1995.

### Devoted Teaching Time

Teachers were asked to estimate, within a 40 week teaching year, how many hours per year students in their class would spend on the sub-strands. Their responses were in units of time ranging from "not covered" to "more than 80 hours

(equivalent to an average of 2 hours per week)". Figure 1 gives the mean reported hours/week teaching of the sub-strands for the total sample. Those sub-strands most closely related to the subject PE were given the greatest time allocation, and added together they account for approximately 3 hours per week. These time allocations compare quite favourably with the recommendations issued by

ACHPER (1994). Consumer health, sexuality, ethics, and cultural and personal identity each received about 10 minutes or less per week.

When primary and secondary school teaching hours/week/sub-strand are considered, the patterns are relatively similar (Figure 2). Primary teachers reported slightly higher time allocations than secondary teachers in most sub-strands, with sexuality and movement skills being the exceptions. Within the PE-related sub-strands, the greater emphasis by the primary teachers when compared to secondary teachers on physical fitness, and the lesser emphasis on movement skills relative to secondary experiences, is a curious pattern as it contradicts what might be seen as appropriate PE emphases (Senate Standing Committee, 1992).

Figure 2 also gives us some sense of the total time per week allocated to the field in Queensland and Victorian primary and secondary schools. Primary schools devote approximately 5 3/4 hours per week and secondary schools 5 hours per week. An

important question is the adequacy of this allocation? At a glance it may seem reasonable, yet what does it mean for quality learning across such a breadth of subject matter? How does it compare to other fields and what does this comparison signify about the status of the field?

Male teachers tended to allocate more time than females only to those sub-strands which underpin PE (Figure 3), whereas female teachers concentrated more than males on sub-strands such as nutrition, safety, and human relationships. Given the demographics of the sample population, it could be inferred that it is male primary teachers who are taking more responsibility than the women for PE-

related learning, and that in doing so, the men are concentrating on skill development for play and sport, and physical fitness.

For those secondary teachers who had most expertise in PE (n=108), they had a fairly tight PE-related focus for their teaching (Figure 4). Those who identified themselves as having most expertise in HE (n=39) (Figure 5) tended to spend more time across a variety of sub-strands but still with PE-related sub-strands dominating their teaching time. In contrast to those who had most expertise in PE and HE (who touched a range of the sub-strands), HEC teachers (n=21) were more focussed in their teaching, not working with any of the PE-related sub-strands. What is curious is that, PE-related sub-strands aside, HE and HEC specialists demonstrated a similar pattern of teaching time allocations across the sub-strands.

#### Professional Development

There were three aspects relating to professional development which the questionnaire sought to inform: sense of professional preparation for teaching in

the field; professional development undertaken within the last three years pertaining to the field; and perceived areas of need within the field for professional development.

In asking the question, "How well prepared do you feel to teach in the following areas?", teachers indicated their relative levels of confidence in the range of subject matter and associated pedagogies within the field of HPE. The total sample of teachers most frequently felt "reasonably well prepared" or "very well prepared" in the sub-strands of human growth and development, movement skills, skill development for play and sport, physical fitness, physical recreation, food and nutrition, individual and community health, safety, and human relationships (Table 2). In the areas of sexuality, consumer health, ethics, and personal and cultural identity, more than 35% of primary teachers felt "poorly prepared". As with primary teachers, more than 35% of secondary teachers felt poorly prepared in consumer health, ethics and cultural and personal identity. While they felt more confident with sexuality, 44.3% felt ill-prepared for environmental health. In general terms, this pattern is consistent with the patterns of time devoted to teaching material related to the sub-strands.

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Table 2. Primary and secondary teachers' perception of being "reasonably" or "very well prepared" to teach the sub-strands.

Sub-strand	Primary %	Secondary %*
Human Growth and Development	72.9	69.8
Sexuality	40.4	60.2
Movement Skills	82.7	71.3

Skill Development for Play & Sport83.172.6

Physical Fitness85.573.3

Physical Recreation82.268.8

Food & Nutrition88.972.1

Individual and Community Health60.955.4

Consumer Health49.229.2

Environmental Health69.629.1

Safety88.670.2

Human Relationships69.764.0

Ethics50.828.7

Personal & Cultural Identity44.825.3

\* Note that the secondary population was dominated by specialist PE teachers

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When primary and secondary teachers' sense of preparedness is compared (Table 2), it appears that the primary teachers generally had a better sense of preparedness across the field than did the secondary teachers. Notable differences between the primary and secondary teachers occurred with secondary teachers feeling better prepared than the primary group in the sub-strand of sexuality, and the reverse in the PE-related sub-strands, and those such as consumer and environmental health, ethics, and personal and cultural identity. Given the findings in the Physical and Sport Education inquiry (1992) that primary generalist teachers were ill-prepared to teach PE and required urgent professional development in the subject matter, the teachers' sense of confidence as indicated in Table 2 is somewhat surprising. However, in continuing to ask "Who is doing the teaching?", it may be that the primary

generalist males are feeling very comfortable with their knowledge to teach PE, and that it is primary generalist females who need to be targetted for professional development.

Figure 6 displays graphically that secondary PE specialists felt very well prepared to teach in the PE-related sub-strands, suggesting that the PE-related sub-strands are taught by a well-defined group who are confident with their specialist preparation. Showing a similar pattern of confidence were those who considered themselves as outdoor educators. This is an interesting result in that teaching qualifications offering a first teaching area in OE are rare in Australia. Perhaps this group developed their expertise outside the formal professional development channels, yet in the school system work as PE teachers.

The sub-strand time allocations by HE teachers together with the teachers' sense of confidence in the HE-related sub-strands (Table 2), suggest that the teaching of HE-related subject matter is done by those who are not particularly confident with the subject matter. Furthermore, the subject matter itself occupies less than half the time allocated to PE-related sub-strands. As HE-related subject matter is central to the HPE Statement and Profile, these patterns suggest that in-service professional development is needed for those teaching HE-related subject matter.

The lesser "status" of HE raises questions about who are the health educators. As there are very few opportunities to undertake a tertiary qualification majoring in HE, what are the backgrounds of those 39 teachers who identify themselves as having most expertise in HE? These teachers may well be PE specialists, who have undertaken inservice in HE-related subject matter, as judged from their time commitment to PE-related sub-strands.

There was a loose relationship between the extent of teachers'

preparedness and the sub-strands in which teachers had undertaken professional development in the last three years. For example, in those strands in which teachers felt the least prepared (egs. consumer health, ethics, cultural and personal identity), few teachers had undertaken recent professional development. The most popular foci for professional development related to the sub-strands of movement

skills, skill development for play and sport, safety, and human relationships (Table 3).

For primary generalists, the profile for recent professional development suggests they had an interest in, and access to, a range of activities across the field except for consumer health, ethics, and cultural and personal identity (10% or less of teachers had undertaken recent professional development related to these sub-strands). Those sub-strands which were more popular for professional development included: human growth and development (29.8%), sexuality (24.8%), movement skills (26.1%), skill development for play and sport (37.2%), physical fitness (21.8%), safety (42.1%), and human relationships (37.6%). The highest "not relevant" response for professional development was in the sub-strand of sexuality, although this was perceived as the sub-strand in which teachers were least prepared.

Figure 7 indicates that PE specialists had recently undertaken professional development in predominantly PE-related sub-strands, those same sub-strands in which they felt as though they were "very well prepared". Within the PE-related sub-strands, skill development appeared to be a focus rather than the development of knowledge of recreation.

Teachers were also asked to express their level of need in terms of professional development activities (Table 3). Table 3 indicates that the teachers expressed a

moderate to high level of need across the sub-strands.

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Table 3. Professional development undertaken and felt need for professional development for all teachers.

Sub-strand undertaken (%)	"Yes", Development high need (%)	Moderate or
Human Growth and Development	27.9	48.9
Sexuality	24.9	57.0
Movement Skills	34.2	43.5
Skill Development for Play & Sport	42.8	43.6
Physical Fitness	27.8	41.0
Physical Recreation	22.3	42.7
Food & Nutrition	14.0	49.1
Individual and Community Health	15.2	56.6
Consumer Health	4.4	55.3
Environmental Health	13.0	41.2
Safety	40.0	42.1
Human Relationships	35.4	53.4
Ethics	9.3	54.2
Personal & Cultural Identity	8.1	57.1

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In exploring further the levels of need, the most frequently occurring "high level of need" for all teachers was in the area of sexuality (20.8%) and "little need" (with 45% or more) in areas relating to the sub-strands movement skills, skill

development for play and sport, physical fitness, physical recreation, food and nutrition, and safety. Not surprisingly, these strands correspond to those in which teachers felt reasonably and well prepared. This raises interesting questions about the appropriateness of recent emphases for professional development in the field (eg. the ACHPER programme currently underway in Victoria).

As with the total population of teachers, secondary specialists in the area of PE expressed some interest in professional development across the range of sub-strands (Figure 8), including the PE-related sub-strands which which they were already confident. This moderate interest across the field suggests that PE teachers are looking to expand the breadth of their knowledge, particularly in sub-strands more closely aligned to HE-related subject matter.

#### Implications for HPE Implementation

Before proffering any implications of the patterns of responses, we reiterate that for many teachers the labels, such as those used in the sub-strands, may have been new to them, and as such, their meaning may have been somewhat ambiguous. This in itself poses an initial challenge to the successful adoption of the Statement and Profile. It also puts the onus on pre- and in-service professional development to assimilate the language and its meanings into their programs.

There are several neglected areas within the field both in terms of allocated teaching time and teachers' sense of preparedness to teach that subject matter. These include sexuality, consumer health, environmental health, ethics, and cultural and personal identity. If all sub-strands within the field are to be addressed in the schools' programs then there needs to be a two-pronged strategy

in which teaching time is created, and teachers undertake professional development. Those sub-strands within the field that fare best are those which are PE-related, suggesting that the "subject" PE could be the "senior partner" in the field, and therefore, the "subject" in least need of negotiation for additional time-table space and support for professional development.

Within the secondary school, the allocated teaching times and the teachers' sense of preparedness suggest that there is a strong tendency to specialise within the field. This raises barriers to inter-disciplinary co-operation, planning, teaching and assessing, contrary to the intentions of the Statement and Profile. However, as indicated by the felt need for professional development, there was an expression of interest in becoming more skilled across the field.

The primary teachers offered perspectives contrary to those which were central to the Physical and Sport Education (1992) report. The field was allocated more teaching time per week than might have been expected, and teachers felt

confident to teach the PE-related sub-strands within the field. However, the sex of those teachers taking responsibility for PE in primary schools, and the

masculinist games and sports that are emphasised, do raise questions about clients of, and nature of, inservice provisions.

The organizational structures underpinning the successful implementation of the eight fields of learning will include adequate time-tabling, the co-operative grouping of teachers into fields rather than subjects, the recruitment of teachers with a breadth of knowledge, and in-service professional development targeted at those sub-strands in which teachers feel less confident to teach. These criteria challenge the established pattern which suggests that the "strongest organizational model is the separate subject, with strong boundaries and a body of highly specialised and credentialled teachers" (Kirk & Gray, 1990, p.71).

Nevertheless, there is evidence that teachers of HPE are willing to

diversify their knowledge, and that some teachers, such as PE specialists and primary generalists, are sufficiently flexible to address a range of sub-strands.

In closing we raise the issue of what this preliminary data might mean to teacher education. While the trend for tertiary coursework is increasing specialization and fragmentation, the school system requires the reverse for its teachers.

Current university structures such departments, faculties and degree rules are not sympathetic to the fields as they are to be implemented in schools. The case of PE teacher education is particularly problematic. As it moves further from its ties with education (Macdonald, in press), it will be less likely to produce graduates who have breadth in the HPE field. Thus, there are opportunities for universities to address the current needs in the field, creating a new category of teacher who has the confidence and competence to think about knowledge, teaching and learning in innovative ways.

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