Theory into praxis: Recent developments in Senior Physical Education in Queensland

Abstract

The Board of Senior Secondary School Studies (BSSSS) in Queensland has
recently approved the trial of a new syllabus in Senior Physical Education. The BSSSS endorsed the intellectual rigour of this practically based subject and agreed that students' results would 'count' equally, for tertiary entrance score purposes, with the other traditional academic subjects.

Part one of this presentation describes the development and the practical nature of this Senior PE syllabus and recounts the attempts of the syllabus developers to counter the conventional hierarchical order of knowledge and the orthodoxy that physical activity involves little cognition.

Part two reports on the progress of the syllabus's implementation. Quantitative and qualitative data, with a focus on the trial school teachers and students, shall be presented. Concerns pertaining to the participating student population, integration of learning experiences, syllabus structure, comparability, and enjoyment of the subject by teachers and students, shall be highlighted.

Theory into praxis: Recent developments in Senior Physical Education in Queensland

INTRODUCTION

In 1973 the Board of Secondary School Studies (BSSS), being the statutory authority responsible for the development and accreditation of secondary school syllabuses and work programs in Queensland, resolved on the advice of its Health and Physical Education Subject Advisory Committee (HPE SAC), to commission the development of a new syllabus in Senior Health and Physical Education (HPE). The syllabus was successfully trialed during 1974 and 1975, and became an examinable 'Board Subject', with its associated tertiary entrance status, in 1976.

In awarding HPE Board subject status the BSSS had been convinced by the HPE SAC that sufficient intellectual rigour existed in the subject to warrant this very favourable classification, and to the present day, students' results in this practically based subject, "count" equally, for tertiary entrance score purposes, with the other traditional academic subjects such as English, Maths and Science.

In 1990 the now Board of Senior Secondary School Studies (BSSSS) resolved on the advice of the HPE SAC to commission the development of a new syllabus in senior physical education.

In reaching this contentious decision the BSSSS chose to override the advice of its own influential Curriculum Committee and the wishes of a significant proportion of HPE teachers who had responded to a BSSSS survey
related to this issue. The HPE teachers and the Curriculum Committee had advocated the retention of the existing integrated HPE syllabus which had been in operation since 1976. Both groups believed that little justification existed for the separation of health education and physical education into individual subjects. The following excerpts from responses to the BSSSS's survey generally expresses these concerns.

a. The Senior HPE course has seen many changes since its inception in 1974-75. At its present stage of development there exists an integration between Health Education and Physical Education which is reflected in the current syllabus. Objectives such as "applying the knowledge of exercise sciences to physical performance" demonstrates the connection between the two areas. Students who elect to study the existing Senior HPE program experience a balance of theory and practical work which results in more effective learning experiences. The aspect of Health Education not only represents important, relevant information for the student in terms of acquiring a healthy lifestyle, but also extends the credibility of the course as perceived by parents and the general community.

b. I object to the constant need to re-write programs because of some perceived need for change by a committee based in Brisbane. The student does not appear to be gaining any advantage from the changes. The increased use of teacher time means less time is available for preparation of new materials for students or the upgrading of existing materials.


However the BSSSS was convinced by the HPE SAC that health education and physical education are philosophically different and that health education, in particular, deserved greater curriculum time and emphasis than it received in the existing Senior HPE syllabus.

...However with Health Education allocated a maximum of only 20% of time, [in Senior HPE] students with a particular interest in this area are not catered for...

(Letter to BSSSS from HPE SAC, 1990)

The HPE SAC was successful in its application to the BSSSS for separate syllabuses and almost four years after its original formation the Physical Education Sub-Committee (PE SC) of the HPE SAC was finally given formal approval to develop a new syllabus: Senior Physical Education (Senior PE).

Part one of this paper describes the development and the practical nature of this Senior PE syllabus and recounts the attempts of the syllabus developers to counter the conventional hierarchical order of knowledge and the orthodoxy that physical activity involves little cognition.
PART ONE: THE DEVELOPMENT OF SENIOR PHYSICAL EDUCATION

During the period 1987-1990 the members of the PE SC met generally one afternoon each month to discuss the development of:

- a rationale for the separation of Senior HPE
- a rationale for Senior Physical Education
- a broad working outline of the structure of Senior Physical Education

(Minutes of PE SC meeting, August 4, 1988)

This proved to be an extremely difficult period for the committee as they laboriously examined their educational philosophies, discovered and manoeuvred around the politics of the BSSSS and generally ruminated about what it meant to be physically educated. The ten members of the PE SC included four practising teachers, two teacher consultants and two university lecturers. Each appears, however, to have been selected more as a result of their expressed and demonstrated commitment to physical education, than on their expertise or experience in the development of syllabus documents. During this period the committee pursued a rationale approach to curriculum design (Arnold, 1985; Fox 1988) and developed the following set of principles to guide the development of Senior PE:

a. Physical activity is a highly institutionalised and formalised component of Australian society;
b. Rational and creative thought at a high level of cognitive functioning underlies skilful human movement;
c. Valuable knowledge and understandings about human movement are developed and enhanced through skilful participation in a variety of physical activities;
d. Senior PE is essentially concerned with physical activity and 50% of timetabled school time should be devoted to actual involvement in physical activity.
e. The syllabus should attempt to treat physical education as a whole and if possible should not promote the separation of theory and practical.
f. The study and practice of physical activity are inseparably intertwined and where possible the study of physical activity should not be divorced from the actual engagement in physical activity;
g. The syllabus should emphasise the developmental and independent nature of learning. It should view students as self directed, independent learners and teachers as facilitators of learning experiences, providing opportunities for students to recall, sequence, generalise, apply, demonstrate, modify and ultimately make informed personal meaning of knowledge, understandings, skills, behaviours, values, and attitudes, in and about physical activity.
h. The syllabus should use a modified information processing approach where people are seen as rational and creative thinkers and where students improve their understanding of, and performance in, physical activity through the thoughtful manipulation of information relevant to physical
activity. ie. Information relevant to physical activity is: gathered --> recalled --> manipulated --> evaluated.

i. Information relative to physical activity should be organised around the following three subject matter themes:
   (i) Physical activity is a highly institutionalised and formalised component of Australian society;
   (ii) Physical fitness is a concept that is of social and biological significance.
   (iii) There are complex processes involved in the learning and performance of Physical Skills.

   These 3 themes should act as the framework around which the subject matter chosen by each school should be organised. Schools should have flexibility in selecting the specific subject matter to be covered in their school work programs.

These principles were, in effect, the PE SC's attempt to put curriculum, learning, and skill acquisition theories into practice. Their development proved to be significant and subsequently, with some refinement, they guided the remaining development of the syllabus. In particular, the notions of Movement Education (Arnold 1980); Embodied Consciousness (Kirk, 1989); Teaching Games for Understanding (Bunker and Thorpe, 1982); Intelligent Performance (Kirk, 1988); Strategic Classifications of Physical Activities (Dudley, 1985; Bingham, 1990); Stages of Skill Acquisition (Fitts & Posner, 1976) and Information Processing (Mateniuk, 1976) were the basis of these principles. These notions became extensively integrated throughout the final syllabus document.

The PE SC's efforts to reflect these contemporary curriculum theories sit juxtaposed, however, with the perplexing political realities of BSSSS requirements during this period.

While the BSSSS advocates a philosophy of a comprehensive and diversified education for all, much of its efforts are consumed by and directed toward satisfying the quality assurance, comparability and reliability concerns that society has about public education. This issue of educational comparability appears to be a particular concern of school based assessment systems such as exists in Queensland and as exemplified by the extensive comparability and reliability initiatives which were being undertaken by the BSSSS at this time as a result of the "Review of Tertiary Entrance in Queensland" by Viviani (1990).

In attempting to ensure the comparability of decisions regarding student achievement levels in the existing subject HPE, the BSSSS emphasised a hierarchical order of knowledge which devalued practical knowledge and promoted the orthodoxy that physical activity involved little cognition. The result for HPE was, and continues to be, a narrowly focused technocratic view of physical education which lends itself to being easily monitored, compared and ranked.
In emphasising these cognitive aspects of HPE and by centrally imposing a minimum standards model which was widely perceived as being unjust, the BSSSSS prompted at this time an unprecedented response in Queensland from teachers, students, school principals, parents and politicians. The basis of the contention was the philosophical difference of opinion relating to the educational value of physical activity. This difference of opinion being symptomatic of the historical, social and political values attributed to types of knowledge, and in particular, the worth attributed to practical knowledge.

It was within this climate of disenchantment and close scrutiny that the PE SC, in an attempt to secure Senior PE's future acceptance as a 'Board Subject', moved to ensure that the its intellectual demands were similar to that of other 'Board Subjects'. The following additional principles were developed to supposedly safeguard the intellectual rigour of the subject:

k. A minimum standards model should guide decisions regarding final ELOA's. This decision is to ensure:
(i) assessment reflects the significant aspects of the course;
(ii) comparability across the subject;
(iii) comparability with other senior Board subjects;

i. Decisions regarding exit levels of achievement (ELOA) should be based on a students ability to process information. Decisions regarding how well a student has performed in written, oral and physical tasks should be expressed in this terminology. eg.
gathered -------> recalled -------> manipulated -------> evaluated.
(acquire pre-req skills) (select & use in game) (modify skill choice)

j. Assessment information should reflect the significant aspects of the course and thus 50% of assessment information will come from actual involvement in organised physical activity.

The PE SC completed their development of Senior PE in May 1992. The completed syllabus closely reflects each of the development principles. Senior PE emphasises the interrelatedness of learning in physical activity and learning about physical activity and utilises an information processing approach to learning. It promotes physical activities as being both a source of content and a medium for learning. and classifies them on their structure and form and on the basis of their strategic features.

The members of the PE SC ultimately agreed that to be physically educated is to be both a competent thinker, and a competent performer, and to be someone who views the very notion of physical activity, in all its forms and contexts, to be problematic. Unfortunately, this definition is not specifically stated in the document.
The syllabus is currently being trialed and evaluated in eleven high schools in Queensland. Part two of this paper reports on the progress of the syllabus's implementation in Queensland. Quantitative and qualitative data collected from key stakeholders, with a focus on the trial school teachers and students, shall be discussed. Concerns pertaining to the participating student population, effective integration of learning experiences, appropriateness of the syllabus's integrating information processing model, establishment of comparability, and enjoyment of the subject by teachers and students, shall be highlighted.

PART TWO: THE EVALUATION OF SENIOR PHYSICAL EDUCATION

To date, the evaluation process has raised several interesting and complex issues that reflect the tensions in having a university entrance subject in a field which is marginal to conventional academic schooling. Although the development of "matriculation" Physical Education is fairly advanced in Australia when compared to the subject offerings in other industrialized countries, relatively little has been written about the challenges of implementing such subjects (see Fitzclarence & Tinning, 1990). In this report we seek to summarize the data in terms of equity, status, innovation and change, and motor/learning theory and raise questions rather than offer solutions to the issues which have arisen.

The Evaluation Process

The conduct of the evaluation has followed, in a large part, the principles and processes of an action research model (Kemmis & McTaggert, 1988). Qualitative and quantitative data have been gathered through the co-operative and collaborative efforts of the evaluators and the various stakeholders in the Senior PE trial. To date, data have been drawn from the following sources:

- open-ended interviews with teachers, Heads of Departments, students, school administrators and Syllabus developers;
- document analyses of the trial Syllabus and work programs;
- evaluators' journal notes from conferences and participant observations during visits to participating schools;
- student and teacher questionnaires; and
- demographic records from the schools.

Data analysis has followed a grounded theory approach (Glaser & Strauss, 1967) in which the gathered data has been analysed to provide a platform of issues for further investigation. In order to capture the reality of the trial process, the voices of various stakeholders have constituted the reported judgements relating to the quality, adequacy or otherwise of the Syllabus. Nevertheless, it is important that the constraints on the political nature of the evaluative process are acknowledged. These include:

- the BSSSS, while being supportive of the exploratory evaluation
process, providing particular parameters which prescribe aspects of the process (e.g., frameworks of discussion for the biannual conferences) and Syllabus product (in that the Senior PE subject and its documentation must in many respects fit into a predetermined format). This renders the trial process from the teachers' perspective as a blend of collaborative action research together with a more traditional top-down model of innovation (Smith & Lovat, 1990); and

• the perspectives of the evaluators supplementing and shaping the reporting process - an inevitability of the methodology (see, for example, Corradi, 1991).

Equity

The 11 schools involved in the trial have populations ranging from 270-1500 students. The percentage of year 11 students studying the subject in each school ranges from 6% to 42% with the average being 24%. Socio-economic characteristics of the schools reflected a diversity of backgrounds, with five schools being in non-government systems and six being state high schools. Statistical data was gathered from 432 of the 481 year 11 students enrolled in the subject which represents 90% of the student population. Of those who responded, males represented 64% and females 36%. This imbalance between females and males has been a progressive trend in students of senior HPE in Queensland and has carried over into trial Senior PE. It should also be noted that there were few non-Australian born students and no students with physical disabilities, thus perpetuating the stereotype that PE/sport in Australia is the province of white, able-bodied males (Scraton, 1990).

While the reasons for females not choosing to take Senior PE are unclear at this stage it is likely that the causes are numerous and complex. The students have indicated that the decisions made in choosing Senior PE were influenced by their enjoyment in practical subjects, expectations of achievement and future employment in related fields. They were not influenced by such factors as friends, teachers or parents, or the belief that Senior PE was an easy option. Over half the students believe their strengths and abilities are in the practical aspects of the course and in particular within team and individual sports. Knowledge about PE, skill development and fitness are what most students hope to gain from studying Senior PE. Approximately half of the student population are unsure about any future involvement in the PE area. Based upon this information, it would appear that female students were less attracted to the subject because they foresaw limited enjoyment and opportunities for success in the practical areas, and did not see it being as relevant to their post-school options.

The classification and selection of physical activities to be included in the schools' program is perhaps important here. One activity from each category - directly interactive, indirectly interactive, performance and aesthetic - was to be included in work programs. However, schools lobbied to change this prescription and now schools, being able to choose from "at
least three categories", have tended not to do an aesthetic activity despite it being an area in which girls may achieve.

A key factor in the selection of activities was staff expertise. This gives rise to the concerns such as the priority given to the interests and abilities of the students, the need for stability in staffing, staff selection, pre- and in-service education etc. When the teaching population involved in the subject is considered the pattern becomes clearer. Of the 24 teachers, 79% are male and 21% female. This in turn is a reflection of the teaching population who are sufficiently experienced to become involved in teaching a trial subject.

A second key concern within the realm of equity is the establishment of fair and comparable standards and criteria upon which to judge students' work, and the process for making such judgements. This introduces a myriad of complex questions relating to what it means to be physically educated when given a mixed sex population with mixed abilities across a range of physical activities, with varying physiques and socio-cultural backgrounds, located in a range of school environments etc.

• Should males and females be evaluated according to the same criteria of physical performance?
• Should objective measures of speed and distance be used and if so, have different achievement levels for males and females? What does this mean, for example, for the opportunities of an underdeveloped boy when compared to an elite girl? What does it mean for students with physical impairments?
• Should a student have to excel at a range of physical activities in order to be "successful"? and
• Should students have an option in choosing the physical activities which they would like to pursue?

Integral to the process of making fair judgements of students' performances, is the question of the most appropriate mechanisms for establishing comparability between teachers' judgements of physical performance within and between schools. At present teachers are experimenting with the use of peer assistance and the preparation of videotapes. The videotapes may be best used for recording the performances of a few key students who represent general categories of achievement or as indicative of the high achieving students only. However, is a sample satisfactory? What are the options for physical activities which are too difficult to track with a camera? Other suggestions for videotape usage include the making of a range of demonstration tapes by which teachers can calibrate their judgements.

Status

There is a degree of frustration amongst both the teachers and students relating to the matching of the subject to (a) the requirements expected by
the BSSSS for a university entrance subject and (b) the interests, needs and expectations of the students who selected the subject. The low academic status of the subject area has been discussed in terms of its marginality in schools (eg. Sparkes, Templin & Schempp, 1990) and its subsequent efforts to reflect the hegemonic academic curriculum (eg. Fitzclarence & Tinning, 1990). The Senior PE subject is clearly in a dilemma.

Academically, the student population was of average ability. For example, their year 10 results revealed that on average that only 8% received Very High Achievements (VHA), 33% received High Achievements (HA), and 46% received Satisfactory Achievements (SA). However, in HPE in year 10 the trial students had achieved 13% VHAs, 52% HAs and 31% SAs. On the basis of these results, together with interview data collected from Principals, teachers and Guidance Officers, it seems that Senior PE was seen to be an option for the less academically able student. As an outcome, there is a strong resistance to the theoretical component in the subject by the lower academic ability students and for many it is "more scientific" than they expected.

Some fundamental questions which need resolution include:

- should the profession attempt to offer a subject centred around physical activity in the "hostile" environment of the "academic curriculum"?
- if Senior PE is offered, to what extent should it meet the needs, interests and abilities of its student population? and
- if Senior PE is to "match" academic standards set in other subjects, will the subject remain attractive to its potential constituents who may achieve only limited "success"?

Yet, a strength of the syllabus is its attempt to overcome the technocratic logic which divorces thinking and doing, the mental and the manual, the theoretical and the practical. This in itself may make a great contribution to altering the status of PE.

Innovation

The majority of teachers and students, after six to nine months, were finding PE to be enjoyable and rewarding. In particular, the teachers were enjoying the increased opportunity for depth of study of Senior PE (without incorporating HE), "flexibility to spend time in theory or time in prac. when you want to or as you see the need" and for strong teacher-student interactions with the focus on the student as a more independent learner. As one teacher explained, "Working with the new syllabus has been a worthwhile professional development exercise".

However, based upon the teachers' previous experiences with BSSSS subjects there was a sense of experimentation and confidence in some schools and conversely a sense of caution, uncertainty, lack of confidence and the need for clear direction amongst others (see Sparkes, 1992). The division was
based upon those teachers who had held positions on BSSSS committees, who had previously been "successful" working with HPE, who had access to resources and support networks, and the like, and those who had not. Thus, while some teachers were ready to work with the relative flexibility of the trial process as exploratory and innovative, others were looking for a more traditional, coercive model of innovation (Smith & Lovat, 1990; Sparkes, 1990).

The surface level changes (Sparkes, 1990) that the syllabus requires are being tackled with relative success eg. writing work programs, implementing new content knowledge. The teachers are receiving a good deal of support for this from the BSSSS with a conference every six months and advice readily available. However, the harder changes which relate to new approaches to teaching and learning, and as a result, new ways to assess, are proving more difficult. Said one teacher, "Linking theory and prac. is difficult for teachers and students." Also the demands on structuring and teaching towards appropriate writing tasks is a challenge - "You have got to be half an English teacher". Teachers believed that, "Exemplars would have been useful" to help them resolve their directions mentioned their frustration with responses such as "try it". Sixty-four percent of staff have expressed the need to further develop their expertise in order to effectively teach the subject. The main areas which have been highlighted for development are their physical skills, theoretical knowledge and BSSSS expectations. The challenge for the BSSSS is to co-ordinate subjects in such a way that teachers' sense of autonomy and professional judgement are encouraged (Templin, Savage & Hagge, 1986) while a sense of unity and common purpose is retained.

Motor/Learning Theory

A key platform of the syllabus is that learning will occur in the physical, cognitive and social domains integrally through an information processing model. This reintroduces what we know about learning theories in the cognitive and motor domains to the realm of curriculum planning. While curriculum texts frequently include chapters detailing the relevance of educational psychology, sociology, and philosophy (eg. Smith & Lovat, 1990), or socio-cultural foundations and learning and developmental theories (eg. Taba, 1969) attention to motor learning has waned in much contemporary PE curriculum development (see Quest, 42, 1990). Yet, for this syllabus, there is a need to refocus on this literature (eg. Abernethy, 1991) to address several questions in planning, teaching and assessment.

These questions include:

- Can the information processing model be effectively applied to theoretical and practical dimensions of learning?
- What represents expertise in physical performances?
- How can expertise in performance be judged?
- How should units be planned in order to maximize motor learning eg. is
it preferable to do one activity for six months or break it up and revisit it during the two years? and

• How should units be sequenced to maximize any transfer of skill between activities?

Conclusion

While the syllabus is making a great contribution to new ways of thinking about PE, and for those participants in the process, is providing a professionally challenging experience, an important question is yet to be clarified. That is, "What qualities represent a physically educated person?" Clearly, this question is one which is vexing state and federal education authorities and higher education institutions as evidenced by recent reports and journal debates. Once the answer to this question is provided for the Queensland context by the Senior PE syllabus and this answer is internalized by the teachers, then many of the above mentioned dilemmas arising from this syllabus will be resolved.

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References


