ROLES AND COMPETENCIES REQUIRED BY PRIMARY TEACHERS IN TEACHING PERSONAL DEVELOPMENT, HEALTH AND PHYSICAL EDUCATION

By:

David Moore - Australian Catholic University
Dr Paul Webb - University of Wollongong

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David Moore is a lecturer in Personal Development, Health and Physical Education at the Australian Catholic University. He is currently enrolled for a Doctor of Education at the University of Wollongong.

Dr Paul Webb is a Senior Lecturer Physical and Health Education at the University of Wollongong, NSW. He has completed a Ph.D. and M.Sc. at the University of Oregon, U.S.A., a Masters of Kinetics at the University of Windsor, Canada and a Bachelor of Education from the Tasmanian College of Advanced Education.

ABSTRACT

This paper is a pilot study in identifying the skills and competencies required of Primary teachers when teaching Personal Development, Health and Physical Education through the use of the Behaviourally Anchored Rating Scale (BARS). BARS is used to determine competencies for specific roles. It has been used to determine roles and competencies in many fields including Nurses, Store Managers, College Professors, Professional and Career Development for Teachers, Sport Development Officers, Sporting Officials and Head PDHPE Teachers.

The BARS procedure consisted of
1. Two expert panels meeting for the day to determine competencies through
   (a) the generation of action verbs
   (b) the development of these action verbs into action statements
   (c) the formulation of roles
   (d) the grouping of the competencies into roles
2. A survey instrument was designed using a five point rating scale.
3. The survey instrument was then sent to the primary teachers for validation.
4. Competencies were determined by
   "Must have" competencies where 90% of responses were ranked at either one or two.
   "Should have" categories were rated one, two or three by 90% of respondents.
   "Unimportant" (non essential) categories fall outside of these rankings.

Through the responses of the pilot group it showed that all except four of the competencies that had been listed in the initial survey were seen to be either "must have" or "should have" competencies.

Teaching/Implementation, Assessment and Evaluation, Resource development, Promotion of the Key Learning Area and Planning were roles that had the majority of the competencies placed in "must have" categories. Coordination, Staff development, and Research had the majority of the competencies placed in "should have" categories.

INTRODUCTION

Personal Development, Health and Physical Education (PDHPE) is one of the six key learning areas that has been identified by the New South Wales government to be taught in primary schools. The draft consultation document has been in NSW primary schools since 1991 and the majority of teacher training institutions have been educating their preservice teachers to teach to this document. The syllabus was due for release mid 1995, but with a change of government and a review of all curriculum documents in NSW, the PDHPE syllabus will be held until 1997. The last health and physical education syllabus was released into NSW primary schools in 1965.

An effective PDHPE program should provide a child with skills and experiences that can be utilised for a lifetime. This is supported by the Excellence and Equity document produced by the N.S.W Department of School Education which states that primary schooling is recognised as a critical stage in the overall education process. These are the years in which children gain their foundation in basic skills (Excellence & Equity, p18). This is reinforced by findings made by the Senate Standing Committee investigating Physical and Sport Education when it was stated that academics believe the best time for children to learn and refine their motor skills is the pre-school and early primary school years. (Commonwealth, 1992, p58). If children in Australian primary schools are to receive effective PDHPE, the teachers who are involved in teaching this need to develop skills, competence and confidence through a
comprehensive and co-ordinated preservice physical education.

This appears not to be the case. Since the Senate Standing Inquiry into Physical and Sport Education (1992), there has been a focus on the lack of adequate training of primary teachers in teaching physical education and the lack of confidence and competence shown by teachers when teaching. It has been stated that "teacher training institutions are not sufficiently preparing generalist teachers to supervise and conduct physical education lessons" (Commonwealth, p9, 1992). The Queensland Department of Education suggest that some teachers "lack both competence and confidence in physical education" and because of this they teach areas of physical education in which they have some experience, usually in the games and sports area (Commonwealth, p99, 1992). This is supported by Kirk et al when they state that physical education programs are "not only very sport oriented, but are narrowly defined and dominated by the culturally popular sports such as netball and football" (Commonwealth, p99, 1992). This leads to teachers only being supervisors in this area rather than teachers.

In an attempt to make primary PDHPE teacher education more effective this pilot study has identified skills and competencies that teachers believe are important when teaching PDHPE. Having identified these competencies, the next stage of the study is to develop primary PDHPE teacher education programs that identify and develop these competencies so that teachers may enter schools with the confidence and competence to teach PDHPE effectively in the schools.

REVIEW OF LITERATURE

The development of competency based models of education and training in professions are receiving wide support in Australia through the work of the National Training Board and financial support from the National Office of Overseas Skills Recognition (Bowden, 1993, 45). Many occupations and professions are basing the training and assessment of their staff on the notion of identified competencies and skills. The National Training Board and National Overseas Skills Recognition in Australia have adopted a particular implementation of competency based principles, based on the notions of units, elements, performance criteria, and range indicators. In this way, an attempt has been made to establish common methods and terminology and provide a degree of comparability across occupations. Tuxworth (1989) in Bowden (1993), however, believes that there is only a limited use of a universal definition of competence and it may be preferable for different occupations to develop their own conceptual definitions. It is an attempt in this pilot study to develop role specific skills and competencies so that primary teachers may be more effectively trained in PDHPE and so that they may take more relevant skills and competencies into the classroom to become more effective teachers of PDHPE.
In relation to the development and utilisation of competencies and skills for primary teachers when teaching personal development, health and physical education (PDHPE), there has been a level of debate on the value of this process in university education and training. In support of the use of competency based education and training it is stated that university courses too often emphasise 'book knowledge' and theoretical learning at the expense of the practical competencies actually required in professional practice. Graduates of higher education programmes commonly lack general workplace knowledge and skills. (Bowden, 1993, 70)

Others would suggest that greater attention to occupational relevance, the development of general employment-related competencies in university courses, and the introduction of more vocationally oriented competency based curricula and assessment are seen by some as antithetical to the essential purpose of university education - namely, the pursuit of knowledge, critical and reflective thinking, and personal development (Bowden, 1993, 61)

Past attempts to utilise competency based training in teacher education have not been successful. Burke et al (1975) in Bowden (1993) stated that one of the problems faced by institutions when developing teacher education programs that involve competency based activities was the general lack of definition and criteria for just what constitutes a competency based teacher education program. Early programmes were hindered by imprecise definitions and inadequate guidelines for implementation. With the utilisation of the Behaviourally Anchored Rating Scale these imprecise definitions should be overcome through the use of a panel of experts and the validation of the instrument through the population that it is measuring.

There appears to be a major concern at the use of competency based education in Universities. The AVCC believes that the specification of sets of competencies required by university graduates can threaten the integrity of university education (Bowden, 1993). Schedvin (1992) and Karmel (1992), in Bowden (1993) believe that university education is more than just attainment of educational outcomes, but also a development and understanding of utilising processes and developing values and the ability to become an effective citizen. The Business-Higher education Round Table report supports the role of the university in promoting the pursuit of knowledge and higher order thinking independent of specific vocational purposes. Universities should be primarily oriented towards the extension of knowledge and research, and the technical institutions primarily concerned with applied studies. (Bowden, 1993, 60)

Universities themselves see that the development of competency based standards for training and education may threaten their autonomy. "One of the AVCC's concerns is that outside agencies and professional bodies
might seek to use the development of competency based standards as a means for dictating what ought to be taught in university courses, shifting the balance from academic judgement about what will be necessary in the future to the judgement of those who knowledge and experience are ground in present or past practice" (AVCC, in Bowden 1993). The development of skills and competencies of this pilot study were developed through the judgement of people who have the knowledge and experience. A wide cross section of experts in primary PDHPE were brought together to develop the instrument while the skills and competencies have been validated by the teaching population that are involved in the planning programming and development of PDHPE in the primary schools.

NOOSR Guide to Development of Competency Standards for Professions makes the point that competency standards are focused on competent workplace as performance, rather than defining the competency expected of new graduates. There is also an expectation that competency standards may influence the content and delivery of courses in higher education institutions. Heywood et al (in Bowden, 1993) supports this in stating that competency standards are not concerned with defining abilities of new graduates. They are concerned with defining competent performance in the workplace. He does state, however, that it is to be hoped that the abilities of new graduates would be closely aligned with the level of competence required at the entry level of the profession.......A good set of competency standards will provide invaluable guidance for occupationally-related changes to the content of courses. As tertiary educators we need to look at developing graduates that can teach PDHPE effectively in the primary schools. If there are competencies and standards identified as important for effective teaching should not it be the role of teacher training institutions to identify and educate toward these?

The Department of Human Movement Studies at Queensland University of Technology (Submission 78,1992)believes that there are a number of key competencies that a teacher involved in the conducting of primary physical education should have. These included
* the knowledge and experience to apply anatomical, physiological and biomechanical principles to permit analyses of all aspects of children's activities;
* the ability to apply these analyses to children in need of remedial work, and to plan or implement appropriate programmes;
* the wide range of skills needed to teach and demonstrate the numerous activities in the programme;
* a knowledge of physical growth and development, and a corresponding knowledge of how to plan activities for specific age groups;
* the physical abilities needed in areas such as supporting in gymnastics, and swimming proficiency;
* a knowledge and application of safety procedures in ball games, throwing events, and jumping activities, and appropriate first aid and resuscitation training; and
*the broad awareness provided by the discipline which is needed to
guide children toward a capacity for self-analysis of the claims and
information emanating from the media, commercial interest and community
groups.

They believe that the general classroom teacher cannot be expected to
perform all of the above competencies. When required to deal with
problems such as the above, the teachers response is to eliminate the
activity completely, or to present it in a less satisfactory form. With
the identification of skills and competencies through this pilot study,
it is hoped that courses will educate preservice teachers in these
areas and allow them to teach with confidence and competence, and not
to avoid essential parts of the key learning area.

The Australian Sports Commission (Submission 177, 1992) believes that
within each state, a reference group comprising representatives of all
education systems, physical education teachers, community sport
representatives, tertiary educators, parents and teachers should be
established to specify for the pertinent tertiary institutions an
"employment profile" expected of graduates they would employ. This
document would expand on such areas as the characteristics and physical
education experiences which they expect of their future "physically
educated" teacher employees. The profile would not rely only on student
grades as the indicator but would expect teaching practice records to
reflect efforts in the area of physical education. The Commission feels
that priority employment would be given to graduates with commitment,
sport specific qualifications, experiences, flexibility and an
awareness of children's physical education needs in the 1990s. It is
perceived by the Australian Sports Commission that these reference
groups would be endorsed by the Education Departments in each of the
States and Territories and the institutions supplying their teachers
will be much more accountable if they work cooperatively to research
the most appropriate undergraduate content to achieve this "employment
profile".

Outcomes of the "employment profile" may result in a range of options
including the training of more and better qualified physical education
generalists, curriculum leaders in the physical education and/or sport
education area more specialist teachers for the primary school level,
and skills appropriate for exchange between schools and community sport
centres. (Submission 177, p1431)

Personal Development, Health and Physical Education has an integral
role to play in the total education of the child. It is part of the
total aspect of schooling. Within this key learning area the child will
experience physical, social, emotional, behavioural and moral
development. Within the PDHPE key learning area physical education can
be one of the avenues for educational experiences in thinking,
reasoning, communication and decision making. The movement mediums
commonly employed to achieve a state of being "physically educated" include dance, aquatics, games, sports, athletics, outdoor adventure activities and gymnastics. The process of an effective physical education occurs when changes related to the acquisition of the knowledge and competencies are brought about through movement experiences. (Submission 177,p1442). In addition, the personal development and health aspects will build upon this and allow for the students to become a well rounded individual and allow them to function effectively in any group in which they are a part.

Due to the importance of the PDHPE key learning area to the development of the child, it is the role of the teacher education institutions to develop and implement courses that will allow teachers to enter the profession with confidence and competence in teaching this key learning area. There is a growing recognition within higher education that competency based methods could impact on all aspects of the university curriculum and assessment, including content and organisation of university courses. It has the potential to reshape university education by imposing demands that courses be redesigned to accord with CBET principles and to focus on clearly defined observable competencies. (Bowden,1993). This pilot study has identified a number of competencies and skills that a selection of professionals believe are important in the teaching of PDHPE in schools within NSW. These skills and competencies could be attained through the development of units in preservice primary personal development, health and physical education courses within teacher education programs throughout New South Wales. Universities already work with professional organisations to design curricula to professional registration and accreditation requirements. If effective teaching in PDHPE involves the use of competency based education at a preservice level then the profession should identify this and encourage this model of education and training.

METHODOLOGY

BEHAVIOURALLY ANCHORED RATING SCALE

The specific purpose of the Behaviourally Anchored Rating Scale (BARS) is to use behavioural procedures to design an instrument that can identify and measure the critical components that constitute effective performance in an occupation.

It has been used for occupations such as Nurses (SMITH AND KENDALL, 1963), Store Managers (CAMPBELL ET AL, 1973), College Professors (HARRAI AND ZEDECK, 1973), Professional and Career Development for Teachers (ERFFMEYER AND MARTRAY, 1988), Sport Development Officers (MOORE AND WEBB, 1990) and Head PDHPE Teachers (LANDY, 1994).
CONSTRUCTING BARS

Two panels of experts were brought together to separately reach a consensus. Members of these panels included (on each panel): one university lecturer, two primary teachers, one Head teacher PDHPE (Secondary), two PDHPE consultants and one representative from the NSW Board of Studies. It was run over a six hour session with the results at the end categorised into a questionnaire that was completed by the subjects. Each panel worked in different work places so that competencies were generated independently and considered essential.

The timetable of the day was divided into
• Definition of terms and desired outcomes for the day.
• Separation of the two groups to different work stations
• Each individual compiled a list of action verbs. Once this was done a composite of individual responses were collaboratively constructed for each group.
• Independently worked to organise action verbs into what they perceive as homogenous category areas or sets of verbs that go together.
• Developed action statements from the verbs. Done by transforming each original and categorised action verb into a specific and observable behavioural statement.
• Once each group had devised a list of competency goals and indicators, representatives of each group meet to collaboratively develop a single draft instrument that marries the competency goals and indicators from each group.

AFTER CONSTRUCTION

A rating scale that has a series of critical competencies (anchors) that are perceived to represent effective performance in an occupation was then administered to a wider sample (n=30) of the targeted population. Respondents asked to indicate on a 5 point Likert scale their perceptions as to how essential each competency area is to effective performance. Each competency or individual indicator can be rated (Campbell, 1973). For the competency to be viewed as "MUST HAVE" (ESSENTIAL) 90% of responses must be ranked at either one or two. SHOULD HAVE categories need to be rated one, two or three by 90% of respondents. UNIMPORTANT (NON ESSENTIAL) categories fall outside of these rankings.

ADVANTAGES

Gay (1981) believes that some rating scales have a problem with the HALO EFFECT and GENEROSITY ERROR.
HALO EFFECT: Ratings influenced by the raters positive feelings towards the person they are rating.

GENEROSITY ERROR: Raters give higher ratings than otherwise might.

These generally occur when the rater doesn't have enough information to make objective rating and ratee benefits from any doubt that may exist with high rating.

Smith and Kendall (1963) and Campbell (1973) believe that these problems can be overcome by the utilisation of the BARS instrument as it has:

- a level of precision and specificity that occurs in procedure for design and construction.
- identified items for rating that are at all times defined in specific behavioural terms.
- scales that measure performance, rather than behaviour or effectiveness.

Performance is behaviour that occurs in a specific context.

Smith and Kendall (1963) further state that as each set of indicators is designed to represent the specific skills associated with effective performance in the competency area then the instrument is rooted in and referable to actual behaviour.

VALIDITY AND RELIABILITY

The procedures for the development of a BARS ensure high levels of content validity and reliability. (Smith and Kendall)

To ensure content validity
- a representative sample of the targeted population or occupation is used to construct each rating scale. (Erffmeyer and Martray, 1988)
- the experts are split into groups and go through identical processes to develop the scales
- anchors or competencies are identified as well as the dimensions or indicators in each competency area.
- only those statements that are common to both panels will be utilised in the final scale.
- the instrument is developed in the language of the occupation that is being investigated therefore increasing face validity. (Smith and Kendall, 1963)

To ensure reliability
- the final scale would be piloted
- the instrument would be devised by people in the same field as those responding therefore making the language common

- indicators written as behavioural statements to remove ambiguity
RESULTS
Thirty subjects responded to the survey. For the competency to be viewed as "MUST HAVE" (ESSENTIAL) 90% of responses must be ranked at either one or two. SHOULD HAVE categories need to be rated one, two or three by 90% of respondents while UNIMPORTANT (NON ESSENTIAL) categories fall outside of these rankings.

MUST HAVE

COORDINATION

Be informed of the short and long term medical conditions of their students and be able to identify and respond with appropriate action to injuries acquired during lessons

Coordinate special events including athletic and swimming carnivals, special days such as bicycle safety days and Jump Rope for Heart days, weekly sport and daily fitness

TEACHING/IMPLEMENTATION

To hold recent and recognised first aid qualifications and be informed of the short and long term medical conditions of their students

Develop a stable, consistent, accepting and empathetic learning environment where all students have an equal opportunity to participate and experience success and feel confident to contribute and participate

Reinforce and give positive and consistent feedback to students on performance and results

Logically sequence ideas/activities to maximise student learning

Manage and organise students in a manner to maximise participation and provide equal opportunity and enable them to achieve full potential

Use equipment and resources to enhance the development of concepts and skills to maximise student learning

Explain expectations and outcomes to be achieved by the students

Provide demonstration of a skill or have somebody skilled demonstrate various movements

Supervise students in both indoor and outdoor settings, providing a safe learning environment

To develop interesting, creative and enjoyable PDHPE lessons

Provide appropriate examples in PDHPE
Raise controversial issues in a sensitive, caring and non judgemental environment

Implement and modify when necessary programs commensurate with students identified abilities, interests, needs

Implement a program that allow students to develop a sense of their own worth, a respect for the right of others to have different values and attitudes from their own, a sense of belonging, a sense of responsibility for personal and community health, a willingness to participate in regular physical activity, a commitment to realising their full potential

ASSESSMENT AND EVALUATION

Assess and evaluate students in development of appropriate skills and knowledge such as communicating effectively with others, interacting positively with others and the environment, decision making in the context of developing healthy lifestyles, problem solving as an individual and with others, esteem building with self and others, appropriate skill and fitness development interest in participation /learning in PDHPE

Critically assess and evaluate the effectiveness of teaching programs

Report clearly and concisely to parents of student achievement in PDHPE

Give constant positive and constructive feedback to students regarding their performance

RESOURCE DEVELOPMENT

Develop safe resources, equipment and learning environments

Provide, utilise and organise resources and equipment to enhance the development of skills in PDHPE

To analyse the effectiveness of resources and equipment in relation to PDHPE

PROMOTION OF THE KEY LEARNING AREA

To teach in a manner that will motivate students interest in the PDHPE KLA

To develop within students, staff, parents and community members an appreciation of the educational benefit and value of PDHPE
To demonstrate positive and confident participation in physical activity and model healthy lifestyle and practices

Promote participation in and support for carnivals, weekly sport and daily fitness

Promote special programmed events including athletic and swimming carnivals, special days such as bicycle safety days and Jump Rope for Heart days, weekly sport and daily fitness

Promote the KLA as an integral component of the total education of our students

Promote a healthy classroom environment in which there is a stable, consistent, warm, caring environment and where children will feel able to confide and take risks

PLANNING

State a balanced scope and sequence of PDHPE to be taught in the school

Provide meaningful and substantial time for the provision of PDHPE

Provide a wide variety of effective and creative teaching/learning activities that are appropriate to all styles of learners

Structure activities to ensure the maximum participation of all students

Provide a learning environment that has warmth, trust, openness, honesty and mutual respect

Develop within the students

- self esteem
- holistic approach to a healthy lifestyle
- appropriate motor skills
- problem solving
- value themselves and others
- responsible and informed decision making

Recognise the importance of safety issues when planning PDHPE programs

Provide appropriate examples in PDHPE

Develop a program which is achievable within the context of both the syllabus, school and student needs interests and abilities and the available resources
Identify and prioritise what skills, knowledge and understanding need to be taught to a particular grade and modify programs to meet these needs.

Familiarise themselves with the PDHPE syllabus and respond effectively to changes and current trends within the KLA

SHOULD HAVE

COORDINATION

Coordinate regular meetings for school planning, program development, design, implementation, evaluation and assessment

Provide meaningful and substantial time in timetable for the provision of PDHPE

Liaise with colleagues, parents, community members, outside business and facilities to compliment the PDHPE program

To create a communication network in the school for staff support, sharing ideas and resources

To order and maintain equipment and resources for the teaching of PDHPE

To coordinate inservice course initiatives which respond to the needs of the staff for effective implementation of the PDHPE program

TEACHING/IMPLEMENTATION

Develop a personal teaching philosophy in relation to PDHPE

Integrate the three areas of Personal Development, Health and Physical Education in the class programs

Identify and mentor students who require advanced skills, more individualised instruction or additional movement experiences

Provide meaningful and substantial time for the provision of physical education

To demonstrate a willingness to be informed of and experiment with different approaches or styles of teaching

Explain concepts clearly and concisely and link these to current events and issues in relation to PDHPE

ASSESSMENT AND EVALUATION
To monitor school, parent and community involvement and support in PDHPE KLA

To review PDHPE planning strategies and program development

To review teaching methodologies and teaching styles

Modify when necessary programs commensurate with students identified abilities, interests, needs

To mark students work accurately and promptly

Implement a range of assessment and evaluation procedures

RESOURCE DEVELOPMENT

Investigate and utilise facilities/services provided by community organisations

Liaise with outside business, facilities, people to develop resources to complement the PDHPE program

STAFF DEVELOPMENT

To attend meetings/conferences as required in order to maintain and update our knowledge, skill and understanding of the contemporary and relevant issues and trends for the effective teaching of PDHPE

To examine and be familiar with current literature and applicable documents and resources

Identify and liaise with community support agencies

Consult with PDHPE resource specialists

To investigate and apply current teaching methods in PDHPE

Consult and communicate ideas and knowledge to students, colleagues, parents and community members

Organise and develop professional development initiatives which respond to the needs of the staff for effective implementation of the PDHPE program

To create a communication network in the school for staff support in the planning, implementation and assessment and evaluation of PDHPE

PLANNING
Integrate in a relevant manner the three areas of Personal Development, Health and Physical Education in the class programs

Integrate in a relevant manner aspects of the PDHPE with programs in other KLA's

Teach all content strands each year in a sequential, balanced and appropriate manner taking into consideration syllabus aims, objectives and outcomes

Include the student, parent and community input into the development of the school's PDHPE program

Link concepts to relevant and contemporary issues

RESEARCH

To attend meetings/conferences as required in order to maintain and develop an understanding and knowledge of the relevant issues for the effective teaching of PDHPE

To be familiar with, and examine, current PDHPE literature and documents, trends and issues

Identify and research areas and issues involved in PDHPE

NON ESSENTIAL

COORDINATION

To generate fund raising measures to assist with the PDHPE program

TEACHING/IMPLEMENTATION

Integrate the PDHPE KLA with other KLA's

PROMOTION OF THE KEY LEARNING AREA

To generate fund raising measures to assist with the PDHPE program

RESEARCH

Report any finding of research undertaken to any appropriate audiences

FUTURE RECOMMENDATIONS

• Modify the survey and distribute to a wider population
• Utilise results to make modifications to teacher training in Primary PDHPE

• Identify more effective ways of inservice in Primary PDHPE through the use of competency based education

• Further research into the value of competency based education in training Primary teachers to confidently and competently teach PDHPE

BIBLIOGRAPHY


Queensland University of Technology-Department of Human Movement Studies. (1992) Senate Standing Committee into Physical and Sport Education, Submission 78.
Senate Standing Committee on Environment, Recreation and the Arts. (1992) Physical and Sport Education, Senate Printing Unit, Canberra.