

# MANAGEMENT OF ASSESSMENT FOR PHYSICAL EDUCATION IN MALAYSIAN SCHOOLS

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## ABSTRACT

*Schools use examination scores to gauge a child's academic strengths and weaknesses while communities rely on these scores to judge the quality of their teachers and administrators. Moreover, policies are often formulated based on these examination results. This scenario itself is enough reason to necessitate assessment to be valid and reliable as they have such a high impact on the live of students, their families, the school administrators and on every level of the education system. This raises the issue of the status and importance of non-examination subjects like Physical Education. Is assessment required for these subjects to be taken seriously in schools? If so, how are they managed? Is alternative assessment formats the answer to these questions? This paper discusses management of assessment in Physical Education which is a non-examination subject even though it is a core subject in the Primary and Secondary Curriculum in all Malaysian Government schools. The results of a survey with a sample comprising 120 key personnel provide salient points for discussion. Alternative assessment formats are examined and discussed and suggestions made as to how the management of assessment in the Physical Education subject can be more valid, reliable, relevant, non-threatening and use-friendly.*

## **INTRODUCTION**

Student assessment has been a continuous, controversial and contentious subject of debate among educators and many sectors of the population. Highly publicized examinations are often the most visible measure of success or failure in education of students, teachers, parents, political leaders and ordinary people alike. It is the yardstick that represents the nations; commitment to high academic standards and school accountability. Schools use examination scores to gauge a child's academic strengths and weaknesses and communities rely on these scores to judge the quality of their teachers and administrators. Moreover, policies are often formulated based on these examination results. This scenario itself is enough reason of necessitate assessment to be valid and reliable as they have such a high impact on the lives of students, their families, the school administrators and on every level of the education system.

### **Alternative Forms of Assessment**

The current affinity for a dependence on assessment as measure of academic achievement has raised the concern of some individuals who question the effectiveness of these standardized paper-pencil examinations to measure actual student learning. These examinations have been viewed as being one dimensional, biased and not useful for classroom teachers as forwarded by Loadman and Thomas (2000); Mehrens (1992); Popham (1992); and Hermans and Golan (1993). Based on the prevailing assessment philosophy and methodology that are strongly correlated with the learning process, methods of assessment are determined by our beliefs about learning. Hence, experts such as Stiggins (1994) and Brookhart (1999) profounded that alternative assessment strategies such as teacher observation, personal communication, student performances, student demonstrations, portfolios that are authentic, real-world, and project-based are useful for evaluating student learning in the various levels of learning in the cognitive, effective and psychomotor domains.

According to Wiggins (1989), alternative assessment formats mentioned before are able to offer students and teachers a forum where the knowledge or skill to be assessed is closely associated to real-world tasks. In addition, the varied formats offer additional and often more comfortable ways for the students to demonstrate what they know and are capable of doing. On the contrary, alternative assessments have been criticized for not being objective enough, too intensive, too expensive and a big hassle to conduct. However, they give an opportunity for students to demonstrate their learning successfully who may otherwise be disadvantaged by standardized formal examinations.

Thus, formal paper-pencil examinations and tests are not the only way to gauge a student's knowledge and abilities. Some educators are going beyond traditional examinations and tests and using alternative assessment formats to gauge what their students know and can do. In view of this, both standardized examination scores and alternative student assessments have an important place in the classrooms in schools. Each of these forms of assessment provides different forms of feedback to the teacher. Together they provide a more comprehensive and accurate picture of the students' learning and achievement.

Sad to say, assessment seems to have become the central focus of life in schools for both teachers and students. They see assessment as the sole and final determinant of learning. Many students and teachers become preoccupied with marks and assessment and see every piece of work or assignment as a means to acquire marks. They view assessments as a set of activities which determines their grade in a subject, rather than as an activity integral to their learning in a subject. This being so, we have to wonder then about the status and fate of non-examination subjects. Should there be assessment for these subjects? If so, how are they carried out? Are alternative assessment formats the answer to these questions?

This paper would discuss the issue of alternative assessment on Physical Education in the schools. Physical Education is a core subject taught from Primary One to From Five, yet it is a non-examination subject in the curriculum.

## **ASSESSMENT FOR PHYSICAL EDUCATION IN MALAYSIAN SCHOOLS**

The new national curriculum for Physical Education in the Malaysian primary and secondary schools (KBSR and KBSM) was introduced in the early nineties. However, it was categorized as a non-examination subject and so assessment was not compulsory. The schools were encouraged to develop their own assessment and reporting methods.

Findings and data collected on two main occasions revealed that the schools however were slow to do this, if at all, and even then it was inconsistent (National Fitness Norms, 2005; *Seminar Pentafsiran Pendidikan Aktiviti Jasmani*, 2005). A random survey of the schools indicated that assessments in almost all schools were carried out on an ad-hoc basis ranging from standardized tests and alternative assessments to no assessment at all. Lack of understanding and skills in the development as well as the administration of each type of assessment; be it, standardized tests or alternative assessments strategies, seems to be the problem. The development and use of these various forms of assessment were closely linked to the amount of emphasis and priorities given by the specific school heads. Often or not, the main determining factor was the directive and the role of the State Education Director.

On a brighter note, some school heads perceived the assessment for Physical Education as an integral part of educating the child as a wholesome and balanced individual. The assessment of a student's psychomotor abilities and knowledge was linked to standards and were carried out and documented so that everyone, students, teachers and parents, understands what was being assessed. The whole system supports and influences these forms of assessments. Still there were others who looked at assessment for Physical Education merely as a task to fulfill the basic requirement of conducting assessment for all subjects in the school system.

Alternative assessments for Physical education should in fact include a variety of techniques. It would have to encourage students to go beyond recall of data; close the gap between the classroom and the real world and include opportunities for students to perform tasks and solve problems. Examples of alternative forms of assessments would include self-test of skill performance, portfolios and a check-list of accomplishments. As

reasonable as these recommendations might appear, most of the assessments carried out do not fulfill these requirements. The quality of assessment of Physical Education in schools is very much dependent on the expertise of the implementers. The classroom teachers, administrators and test developers, who are required to design and develop assessments in the schools, have very little to guide them particularly on how to align assessment with learning goals. Hence, often these assessments are done at an ad-hoc basis and prepared haphazardly just to create or to assign a score or grade to the students in Physical Education. Documentation and reporting is not a priority in most cases.

On the other end of the scale we have these groups of schools that do not conduct Physical Education classes as required, let alone, carry out assessment. Physical Education being a non-examination subject is not considered as an important indicator of school success. As a result of this biased disposition towards the Physical Education subject, assessment of Physical Education remains in a state of limbo, very much dependent on the whims and fancies of the administrators' priorities.

## **A SURVEY ON THE STATUS OF ASSESSMENT IN PHYSICAL EDUCATION IN THE SCHOOLS**

The state of assessment in Physical Education in schools can be further exemplified by the results of a survey research on teachers' assessment and reporting practices in relation to Physical Education in the primary schools. The study was conducted in year 2003 on 120 trained key personnel of Physical Education by the authors with the help of the Curriculum Development Center Officers.

## **THE OBJECTIVE AND SAMPLE OF THE SURVEY**

The study aimed to investigate teacher's assessment and reporting practices in the subject of Physical Education in the primary schools. It involved a survey of 120 trained key personnel from the states of Malacca, Negeri Sembilan, Perak and Johore. They were currently undergoing a four days training and orientation course on the revision of the KBSR Physical Education primary school curriculum conducted by the officers

from the Physical Education Unit, Curriculum Development Center, Malaysia. They were trained and expected to facilitate and conduct training workshops for primary school teachers who would be implementing the primary schools Physical Education syllabus in their respective schools in 2003.

To ensure representativeness as regards to the best practices of assessment, this sample was chosen as they were supposed to be the 'cream' and experts in Physical Education in the primary schools. Being the key personnel, they were categorized and presumed to be equipped with the technical expertise and had a better understanding of the theoretical knowledge to conduct the assessment. Furthermore, they were expected to be the change agents and role models for the effective implementation of the Physical Education curriculum.

## **INSTRUMENTATION AND ADMINISTRATION OF QUESTIONNAIRE**

A questionnaire comprising seven questions was distributed to the participants during the session on "Assessment and Evaluation in Physical Education". It was conducted on the 25 March 2003. The questionnaire was in Bahasa Malaysia as the participants were more proficient in that medium. Completion time (one day) was given for them to respond. However, only 67 out of the 120 participants (55.83%) returned the questionnaire on the following day.

The items in the questionnaire were developed by the officer from the Curriculum Development Centre who lectured on the topic, "Assessment and Evaluation in Physical Education". The items were selected with the purpose of gauging their understanding of the basic functions of assessments, alternative assessment strategies used to assess Physical Education, methods used or suggested to document and record the assessment that had been carried out. The intention of the study was to highlight any good practices by the participants and to have them disseminated to the other key personnel.

## MAJOR FINDINGS OF SURVEY

Data were analyzed manually. Quantitative and qualitative data were derived in the form of frequency distributions and descriptions of best practices. It was unfortunate that the instrument used in this study did not incorporate the background information on the respondents. Such information would provide interesting and useful data for further analysis and interpretations. However, preliminary findings were sufficient to depict the current scenario in the schools. The major findings included the following:

### Item 1: The Function of Assessment or School Based Evaluation

The majority of the respondents were able to answer this item correctly because the answers were given in the hand outs by the lecturer concerned. Hopefully the answers indicated reliably that all the respondents have a clear understanding of the functions and the basic purposes of evaluation in school based assessment. The answers by the respondents are in congruence with those cited in the literature on assessment. That seeks to define assessment and identify its purpose. Brady and Kennedy (1999), Conner (1991), Griffin and Nix (1991) and Duncan and Dunn (1988) attempted to clarify the concept, and Groundwater-Smith and White (1995) reported on the five functions of assessment listed by Eisner (1993, p. 24-5) in examining the issue of assessment and accountability. Experts in assessment have identified three common types of student assessment to be conducted during the course of the school year to ensure effective teaching. The three types of assessment highly recommended are:

1. **Diagnostic:** usually occurs at the beginning of the school year or before a unit of instruction. It identified "where students are at" or the students' 'take-off value' and helps the teacher to plan appropriate lessons.
2. **Formative:** an ongoing classroom process that gives students and teachers feedback on student's progress in achieving learning objectives. Its main purpose is to improve teacher instruction and

student learning. It allows students to keep track of their progress while at the same time allowing teachers the opportunity to make program modifications based on students' progress.

3. **Summative:** occurs most often at the end of a unit of learning. Its primary purpose is to determine what students have learned over a period of time in relation to learning objectives. This progress is usually reported to students, parents and appropriate school personnel.

## Item 2: Aspects of Physical Education to be evaluated

The responses were as follows:

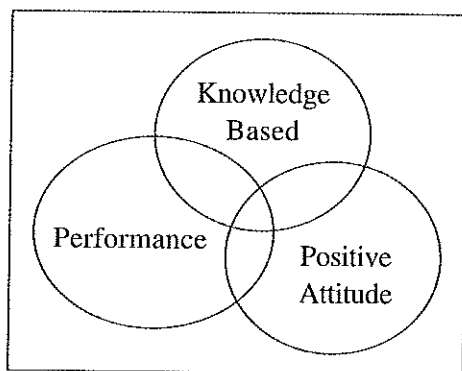
Answers reflect clarity of understanding of aspects to be evaluated	Answers reflect moderate understanding or this item	Answers reflected confusion understanding of this item
20.89%	55.22%	23.89%

Answers from 20.89% of the respondents indicated a clear understanding of the aspects that have to be assessed. The three domains, that is, the psychomotor, cognitive and affective domains were cited clear examples were used to exemplify their answers. They were able to relate assessment to the goals of Physical Education.

The KBSR and KBSM Physical Education syllabus specify learning goals and objectives that students should know and be able to achieve. Focusing on the goals of physical education will help teachers align their learning objectives of lesson and unit plans to appropriate assessment and evaluation strategies. All planning, presenting, facilitating and judging revolve around the goals of the national Physical Education program. Amongst the goals of physical education is developing lifestyles oriented to overall well-being and lifelong education. Assessment and evaluation to achieve this goal is reflected by looking at student evaluation in terms of three areas of student learning: knowledge, performance and positive attitudes which comprise the cognitive, psychomotor and affective domains as illustrated below.



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Knowledge Based (Cognitive Domain)

FOCUS	ASSESSED BY	DOCUMENTED IN
1. Physical activity 2. Physical fitness	1. Extended open-response item 2. Contracts 3. Presentations 4. Homework 5. Objectives Tests	1. Checklists 2. Rating scales 3. Anecdotal records 4. Mark sheets 5. Report cards

The second goal of physical education in Malaysian schools is concept-based skill development. In order to reach this goal, teachers will have to consider a number of factors when developing learning objectives, lessons and units. For example, students in the same class may have objectives that aim for different levels of achievement. A beginner volleyball player may have objectives related to learning the basic digging and serving skills. The intermediate volleyball player may wish to improve skills related to setting and spiking skills. The advanced volleyball player may wish to refine skills related to more sophisticated game situations and strategy.

Taking such an individualized approach to skill development requires the use of entry level or diagnostic assessments. These assessments will allow students to establish a starting reference point from which to determine progress. Teacher will then be required to prepare activities to meet the needs of these students. Entry level assessments will also

provide a take off value or baseline from which to evaluate motor skill improvement. Hence, group work is also recommended in Physical Education classes.

### **Performance (Psychomotor Domain)**

<b>FOCUS</b>	<b>ASSESSED BY</b>	<b>DOCUMENTED IN</b>
1. Motor Skill development	1. Continuous Performance Assessment	1. Checklists 2. Rating scales 3. Anecdotal records 4. Graphs 5. Score sheets

The third goal of physical education is development of positive attitudes. These attitudes focus on physical activity, fitness, self-concept, relationships with others, social behavior and personal and group safety. To accurately and fairly assess and evaluate students with this goal in mind, specific techniques such as rating scales, anecdotal records and peer assessments would proved to be most beneficial.

### **Positive Attitude (Affective Domain)**

<b>FOCUS</b>	<b>ASSESSED BY</b>	<b>DOCUMENTED IN</b>
1. Self-concept 2. Social Behavior – e.g. Team work 3. Personal and Group Safety 4. Commitment outside school	1. Self-assessment 2. Peer-assessment  3. Individual Assessments 4. Group Assessments	1. Checklists 2. Rating scales  3. Anecdotal records 4. Profiles

It is also interesting to note that answers from another 55.2% of the respondents indicated moderate understanding of the aspects of Physical Education to be evaluated. They only cited the three domains without giving any example or give respondents indicated confusion.

They were not able to respond or cite example of strategies of assessment.

### **Item 3: How do you carry out your assessment?**

The common methods cited by the majority of respondents were observation, oral tests and written assignments / test.

Method	Percentage
Observation	98.5%
Oral Question and Answers	98.5%
Written tests / assignments	95.52%
Performance	2.98%

Two of the respondents (2.98%) stated that assessment could be based on student performance. However, the response 'observation' could also imply observation of student performance on motor skills and observation of positive or negative attitude. However, without a proper and comprehensive instrument that details aspects of the skill itself or the output of performance, it is difficult to establish the validity and reliability of this assessment made.

These varied responses indicated that the respondents were aware of the alternative assessment strategies that could be used in the assessment of Physical Education in schools.

### **Item 4: Should evaluation carried out be recorded / documented?**

All the respondents agreed that assessments should be documented. The literature on documentation and recording of assessment is linked closely to the literature that focuses on the purpose, principles and strategies of assessment. Brady and Kennedy (1999) furnish a comprehensive list of reporting strategies which includes reports; parent-teacher interviews;

portfolios; homework; written material; curriculum and policy statements; open days, speech nights, assemblies; and public displays. Groundwater-Smith and White (1995) provide another perspective on reporting by analyzing the needs of parents. They suggested that these needs are cyclical (varying through the year), contextual (involving the community) and social (relating to the processes conducive to sharing information).

### **Item 5: Is documenting and keeping records of assessment tedious and burdensome?**

It is encouraging to note that a total of 47 respondents (70.15%) agreed that assessment should be documented and keeping records is useful and beneficial. A number of the respondents also stated that evaluation data was useful for future reference and beneficial for improving their teaching processes. The majority of this group of respondents also requested for a standardized format to facilitate the process of documentation.

However, a total of 18 respondents (26.86%) lamented the fact that keeping records on assessments was tedious and required a lot of paperwork. They cited consumption of time as burdensome. This is especially so in cases where they have to teach many classes of Physical Education. One respondent complained that documentation of assessment is an extra burden to the teacher who is already overloaded with other tasks.

### **Item 6: What are the methods of evaluation implemented by you in school?**

A variety of answers were given in response to this item. This could be due to the ambiguity of the phrasing of this item. On the other hand, it could also imply that assessments in schools were varied, authentic, cyclic and contextual as propounded by Groundwater-Smith and White (1995).

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Method	Percentage
Observation and Oral	10 (14.95%)
Observation	16 (23.89%)
Observation, Written and Oral	25 (37.3%)
Formative	2 (2.98%)
Formative and Summative	7 (10.45%)
As Required by Teacher Training Division	1 (1.49%)
Evaluate Aspects of Skills, Personality Team Work and Participation	1 (1.49%)
Not Done	5 (7.48%)
Not Involved	1 (1.49%)

## IMPLICATION

The response rate in the study was rather low despite the respondents being reminded repeatedly by the officer concerned to return the questionnaire to her. Bearing in mind that these respondents were key personnel who were attending a course organized and sponsored by the Curriculum Development Center, a division in The Ministry of Education, it amounted to ignoring a directive from the officer of the Curriculum Development Center. It would be quite distressing to imply from this that the participants were not too serious about assessment of Physical Education in their schools. Or, it could be that they did not want to reveal that they had not carried out such assessments. It certainly would not reflect well on the commitment and responsibility of the key personnel. If this group of people were not serious about assessment, then who should

shoulder the responsibility of implementing it in the schools? Or, could it be that they did not have a clear understanding of assessment to enable them to respond to the items in the questionnaire? These questions and conjectures certainly do not provide a bright picture of assessment of Physical Education in schools. These, undoubtedly, are points and issues for us educators, in particular, physical education leaders to ponder on.

## **SUGGESTIONS FOR ALTERNATIVE ASSESSMENTS IN PHYSICAL EDUCATION IN SCHOOLS – FOCUSING ON WHAT IS AND WHAT CAN BE**

At this juncture, it is not wrong to say that physical educators almost always use typical objective tests to assess achievement in the cognitive domain or skill tests to assess achievement in the psychomotor domain. One must remember that there are alternative methods that can provide ‘output’ or ‘products’ that can be used to evaluate achievement in the subject.

Alternative assessment in Physical Education can be in various forms and involves obtaining data from a variety of sources, such as:

### **1. The Basic Fitness Tests or *Ujian Daya Tenaga Asas (UDTA)***

UDTA is a battery of tests designed to obtain data on students’ fitness which is used to indicate the students overall well-being in the Malaysian schools. However, this battery of test does not provide sufficient data to make conclusion on the student’s lifestyle or well-being as the items are limited to only six aspects of physical fitness. Furthermore, it is carried out at an ad-hoc basis and often to fulfill the administrative requirement of assessment.

Amongst the goals of Physical Education is developing lifestyles oriented to overall well-being and lifelong education. To assess and evaluate students in this area, lessons would include planned opportunities for each student to demonstrate the development or maintenance of such a lifestyle. Physical Education students will be required to actually live this lifestyle both in and out of regular class time. It is the notion that students’ lifestyles are more likely to change

when they begin to practice what they have learned and believed in. Assessment and evaluation to achieve this goal is reflected by looking at student evaluation in all three areas of student learning: knowledge, performance and positive attitudes which comprise the cognitive, psychomotor and affective domains.

Hence the UDTA cannot fulfill this function as it only tests certain physical attributes. Test items should directly relate to the physical attributes that represent the construct of personal well-being, for instance, fine motor skills and co-ordination, aerobic and anaerobic fitness; and social skills. The items in the test could be refined and updated to reflect better validity and reliability. Furthermore, a set of norms for various age groups (early primary, early adolescence, and adolescence) and gender based on the Malaysian school going population should be used as a measure.

## **2. School Based Standard Taking**

Another alternative format in the performance based assessment in the psychomotor domain is the school based standard taking carried out before the school sports day. These tests are normally conducted by the school authorities based on a set of norms / qualifying criteria set for each age group. However, the test themselves do not give data on learning in the cognitive and affective domain. Such standards tests also have the indirect intention of encouraging active participation by all the students. These test were conducted by a wide group of teachers ranging from those with and without training in assessment and to those with and without knowledge of learning in the psychomotor domain. This being so, the question of reliability becomes a critical concern in this form of testing. Hence, effort should be made to improve the administration of the tests and to reset the norms based on age groups and gender in all schools concerned. Such a move would ensure that there is greater reliability and validity of the tests carried out nation wide.

Often norms for these tests are set and not changed at all. Norms should have to be periodically reviewed according to cohorts and students' lifestyles. If and when required, norms should be reset so that a more current profiling of students' abilities can be drawn.

### **3. Portfolios, Students Logs and Journals**

This form of assessment can provide useful data on students' achievement in the cognitive and effective domains in relation to Physical Education. However, these forms of assessment are used more by teachers who have the knowledge, training and skills in these forms of assessment. It is not as common as one would like it to be. More teachers should be trained in the use of this format of assessment tool for the Physical Education syllabus.

### **4. Event Management**

Some teachers use this format to test leadership, managerial and social interaction skills as well as attitudes. Students are required to plan and manage events where their performance in specified tasks are evaluated; e.g. leadership skills; organizational and managerial skills, team work, tolerance, dedication and punctuality.

### **5. Education Visits**

In educational visits, students could be requested to collect data, interact with personnel and make a critical report on sites visited and their field experiences. This assessment format could at one go test the students in both the cognitive and affective domains. Student could also be operating at higher cognitive order of thinking as they would have to apply their knowledge and skills learned in the classroom or field in a new context. This format has been used by teachers in the language and social science disciplines. It is just as useful and relevant in Physical Education.

## **CONCLUSION**

Effective assessment in Physical Education would therefore include the use of both the formal traditional form of assessment (Paper-pencil tests/examinations) as well as the alternative or informal ways of assessment. Such assessments would provide a more comprehensive and accurate coverage of the learning outcomes required in Physical Education. As it stands, the current format of assessment tends to focus on either the psychomotor domain or the cognitive domain. However, the tests do not



have a sufficient and satisfactory level of content and construct validity, let alone reliability. As the aim of Physical Education is to develop the child as a well balanced and wholesome healthy individual, it would mean that assessment in the subject should encompass all the three domains. The testing in each domain should be valid, reliable and relevant. This would imply that tests should be both of the formal traditional format as well as the informal and alternative forms. The tests should also be non-threatening and user friendly. It could even include self-testing items.

Managers and teachers should be properly informed and trained in the use of such alternative and informal formats of assessment. Even though Physical Education is not an examination subject, it is a core subject and so comprehensive testing and evaluation has to be carried out to enable us to know with a higher degree of confidence whether students have achieved the stated objectives of the subject.

These measures taken seriously should augurs well for the future direction of Physical Education and Sports in the Malaysian schools as aspired by the Malaysian Director General of Education, Dato' Dr. Ahamad bin Sipon. The Director General of Education's concern and focus on a "High Quality Physical Education and School Sports in Malaysia: The Way Forward" was advocated in the Seventh National Sports Policy Lecture held on the 16 September 2005 (Sipon, Ahamad, 2005).

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