

CHAPTER 6

ASSESSMENT IN PHYSICAL EDUCATION

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Assessment in Physical Education

Assessment is a comprehensive process that implies an assessment of the participants and the curriculum with which they interact. Assessment in physical education serves many purposes and contributes to decision making about: classification, diagnosis and guidance, motivation, reporting progress and program improvement.

6.1 Forms of Assessment

This Curriculum Framework advocates three forms of assessment:

Student Performance: Students share in the assessment process. The needs of individual students are identified for the purpose of planning instruction; students are assessed for the purpose of selection and grouping; and parents/guardians are informed about students progress.

Teacher Self-Assessment: Teachers self-appraise their efficacy⁹ in planning and conducting lessons within the physical education, school and community contexts.

Curriculum Improvement: The suitability of instructional material and teaching methods are appraised to decide whether changes are needed. Inherent in curriculum improvement is an ongoing assessment of the curriculum improvement criteria.

⁹ The extent to which teachers have sufficient power to bring about physical, cognitive and social learning that empowers the learners in their charge.

Value orientations affect evaluative decisions. The Personal-Global orientation places equal emphasis on the learner, the facilitator, the activity, the knowledge base and the social context. Personal-Global evaluation guides students and teachers in learning how to deal critically and creatively with their educational settings, thus assisting in determining how to improve them. Teachers not only facilitate students' interaction during the physical education instructional periods, but also encourage the interaction to continue beyond the class setting. While broad social and environmental outcomes are stated, the process permits local\regional intentions to emerge.

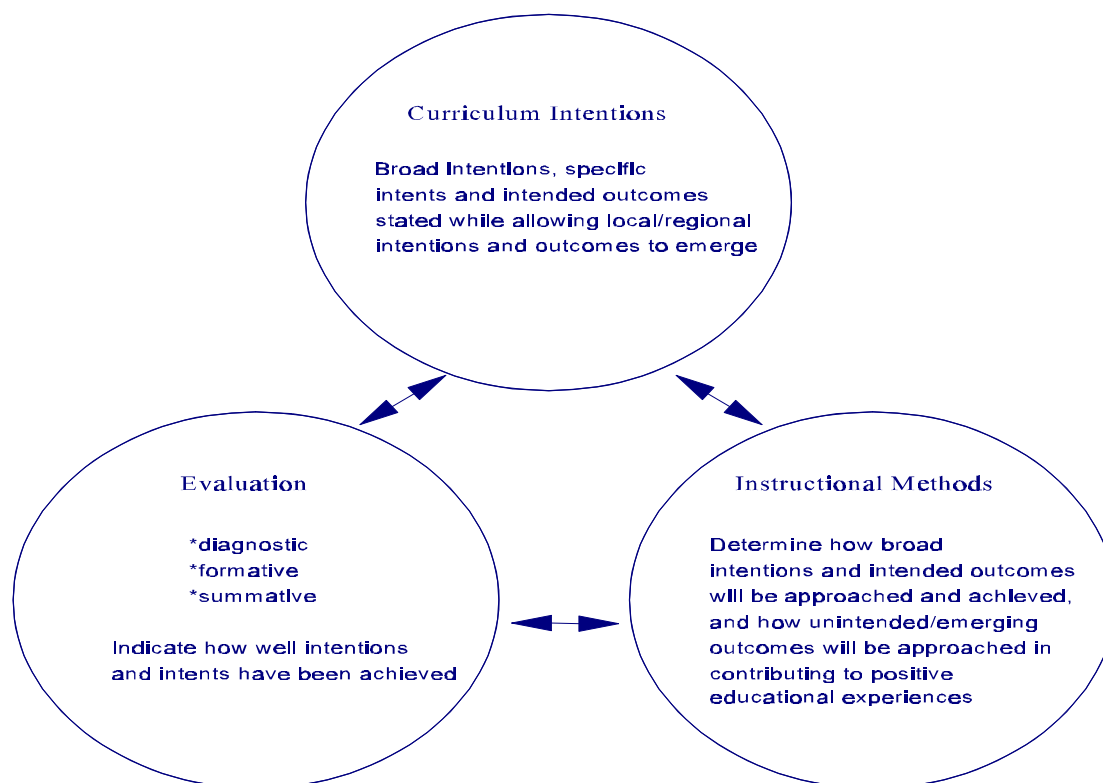
6.2 The Teaching - Learning - Evaluation Process

Student assessment is interconnected with outcomes, teaching methods and lesson planning. The Teaching-Learning-Evaluation Process implies that curriculum outcomes (intended or unintended), the selected teaching methods and student assessment are repeated throughout the teaching-learning-evaluation process. This Curriculum Framework recognizes diagnostic and formative assessment as being cumulative and guiding a summative assessment (See Figure 3 below).

6.3 Assessing Student Performance

Assessing student performance is a process of collecting and interpreting information about the acquired knowledge, experiences, skills, attitudes and behaviour of learners as they interact in and with the curriculum. Operating within a Personal-Global orientation, assessment of progress is viewed as a cooperative and collaborative venture, done for and with learners as they make meaning of the curriculum. As students mature within a class and throughout the program, they take on more responsibility for their own assessment as part of the teacher's on-going assessment of student performance.

Figure 3: The Teaching-Learning-Evaluation Process
(Adapted from: *The Evaluation of Students in the Classroom: A Handbook and Policy Guide, 1990, p.5*)



Learner outcomes **about, in and through** movement may be realized through activities that focus on learning processes, interlinked with self-actualization and social responsibility.

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Learning Processes foster interactions, decision making, problem posing and problem solving. For example, in games at any level, students may work together in groups to discover and communicate a strategy to accomplish some specific goal. This could occur in a cooperative activity which requires a group to cross a spider's web; it could also work in a formalized game which requires a team to score a goal in scoop-ball or soccer. On a cognitive level the merit of a game or sport could be examined through dialogue with respect to it being cooperative while being competitive (e.g., participants agree to abide by formal, agreed upon rules and regulations, and follow a fair play code in pursuit of winning the contest).

Self-Actualization fosters success and increased feelings of self-concept and self-esteem. For example, students may be guided to set personal goals through participation in a fitness unit, an outdoor adventure activity, or a formal game situation. Feelings of success or accomplishment may be expressed through group selection, or the drawing of happy and sad faces at the primary and elementary grades. At the intermediate and senior high levels, a series of questionnaires may be designed to assess student self-satisfaction and feelings of accomplishment.

Social Responsibility fosters understanding and respect for others and the environment. Activities focus on becoming aware of inequity and injustice, and developing strategies for change. For example, students may reflect on formal games, pose problems and seek solutions related to inclusion and exclusion of classmates. Students may devise guidelines for the use and care of equipment, facilities and natural environmental settings, and set up ways to monitor the success of their action. For leadership projects, students may concentrate on their interests, and where and how they can make a positive contribution to their school and community.

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Physical Education strives for the following **general curriculum outcomes**:

1. Perform efficient, creative and expressive movement patterns consistent with an active living lifestyle;
2. Demonstrate critical thinking and creative thinking skills in problem posing and problem solving relating to movement;
3. Assess attitudes and behaviours during activity in relation to self, the class, the school and the community;
4. Demonstrate socially responsive¹⁰ behaviour within the school and community;
5. Exhibit personal responsibility for the social, physical and natural environment during physical activity.
6. Exhibit personal development, such as positive self-esteem, self-responsibility, leadership, decision-making, cooperation, self-reflection and empowerment during physical activity;

These outcomes are further specified in terms of more detailed **Key Stage Curriculum Outcomes** in Chapter 3.

6.3.1 Adjusting the Criteria for Student Assessment

Physical Education models, grounded in the Personal-Global orientation, place learners in an interactive role with the curriculum content and the environment. The Framework promotes a self-referenced and criterion-referenced approach founded on identifying educational intentions, and specific tasks that value and foster participation, involvement, responsibility and caring. Programs are student-teacher centered, in which flexible expectations with respect to activity

¹⁰ Within a Personal-Global orientation, physical education students may take part in leading community recreation programs, or in sponsoring an environmental clean-up as a part of their physical education activity program.

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skills and activity options are planned collaboratively by teacher and student.

Personal-Global assessment advocates:

- evaluation that assesses the process as well as the product;
- involvement with feedback for active participation, not just performance;
- self-management and self-assessment of attitude and behaviour toward physical activity and lifelong learning;
- self-reflection and collective-reflection about learning and the learning environment.

Carefully planned programmes of formative assessment can have a wide range of positive impacts on learning and teaching.

(Nuttall, 1986)

The Personal-Global curriculum orientation recognizes the merit of both qualitative and quantitative methods in the assessment of student progress. Assessment of personal meaning and social significance rely on qualitative methods. Teachers motivate learners to reflect on and record progress in interaction with others (cooperation, recognizing and resolving conflict), how specific lessons affect their attitudes, feelings, sense of self-esteem, and how specific activities affect their attitude and feelings about social and environmental conditions. Qualitative assessment methods allow new ideas and activities to emerge.

Assessment of student performance should rely on qualitative methods with quantitative methods supplementing or being used on occasion. Teachers may use qualitative and quantitative methods to assess the technical efficiency of the learner while performing the skill. In keeping with the collaborative nature as advocated by a Personal-Global orientation, teachers may have learners conduct technical assessments with their peers. Qualitative methods may also be

conducted during formal and informal games where assessment would focus on who controls the play, or who gets possession rather than the score or final result.

6.4 Adopting a Futuristic Strategy for Student Assessment

The Framework advocates participation and involvement with responsible decision making, behaviour and actions. Personal and social development serves as a starting point for developing a self-referenced and criterion-referenced approach to assessing participation and involvement (Hellison, 1985). Teachers and students should explore assessment alternatives to supplement or replace traditional performance assessment. Assessment based on participation and involvement will create opportunities for self-management and self-assessment. Participation and involvement may be assessed throughout an activity unit, school year and/or grade level. Opportunities for self-management and assessment can increase at each level from Primary through to Level III. Participation and involvement with responsible decision making, behaviour and actions provide a 'reference' for self-reflection and collective-reflection about personal development, and about issues of social and environmental significance in school-community settings. A self-referenced and criterion referenced approach that is student-teacher centered permits assessment to be conducted for and with learners as they interact in their physical education settings.

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When designing student assessment procedures, teachers should take further guidance from the Department of Education publication, **The Evaluation of Students in the Classroom: A Handbook and Policy Guide (1990)**.

The full development of caring requires that students acquire a sense of purpose in life that extends beyond personal involvement and development to a commitment to bettering the world. It is essential to the well-being of an individual and society to progress from concern for self to concern for others to concern for all.

(Hellison, D. 1985, p. 132)

6.5 Assessment Instruments and Techniques

Contemporary assessment instruments may be adapted to implement a strategy for student assessment. Traditional performance tests become part of the process rather than being a summative result. Learners are taught how to use fitness and skill testing instruments, which they may select for self-assessment. To fully implement a humanistic strategy for student assessment, teachers and students must collaborate, experiment and reflect on new devices of assessment.

The notion of evaluation must be reconceptualized to mean the "process and progress of learning".

Wood, G., 1989, p. 31

A sample of instruments that teachers and students may select from include:

- interest inventories that survey interest and/or awareness within specific activities or topics. (inventories are used to plan level of detail and/or skill);
- observation gathered and recorded through checklists, anecdotal records and rating scales;

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- individualized task cards;
- individualized and group progress charts and files;
- self assessment based on informal and formalized journals, activity and exercise diaries/log books and activity records;
- peer assessment in which students are guided to collectively reflect on their experiences, achievements and weakness/deficiencies (small and large groups may be adopted for this form of assessment);
- teacher - student conferences based on structured and unstructured interviews;
- contracts based on the self-referenced criteria and negotiated between the student and teacher;
- discussions with reflection and time for follow up questionnaires;
- formalized fitness and skill testing if deemed appropriate or requested by an individual student, group or class;
- portfolios;
- teacher made tests based on appropriate criteria.

Part of the ability to self evaluate is based on self reflection, which is an appropriate strategy for development of self assessment skills.

(Latham, A. M., 1992)

6.6 Reporting Progress

A Personal-Global orientation advocates qualitative progress reporting to supplement the traditional quantitative (letter or numerical) reporting. Students become active participants in completing progress reports which must be flexible in adapting to age and ability groups. Reports need to be grade/level specific, but individualized to indicate

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progress in fitness, skill and movement, and include progress in practical projects and assignments where applicable. Specific to grade and/or levels, descriptive statements in the form of checklists or rating scales may be included to reflect participation, involvement, responsibility and caring, in balance with effort, improvement and achievement in skill and fitness.

Marks [alone] are misleading and incomplete at best; and at worst they are inhibiting and traumatizing.
(Malehorn, H., 1984)

6.7 Teacher Self-Assessment

The efficacy of teaching physical education may be considered as having two mutually intertwined components - (1) the outcomes to be achieved; and, (2) the extent to which the teacher creates a 'safe and friendly' educational environment consistent with the Personal-Global orientation. Teachers may personally assess their efficacy to empower students through two sets of qualities - critical/reflective qualities and technical qualities (Harris. J. C., 1993).

- **Critical/Reflective Qualities:** Teachers focus on the social context of their interactions with students and how these interactions are mediated in the day-to-day reality of the classroom, the gymnasium and other settings. Critical reflection relies on practical knowledge in the process of fostering empathy and empowerment of learners, and the promotion of change in society relative to physical education.
- **Technical Qualities:** Teachers focus on their knowledge of content, their day-to-day behaviour during the instructional periods, and how this knowledge and

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behaviour affect student outcomes. It can also relate to coaching in school-community settings. The goal is to apply knowledge from pedagogy and sport science to improve the instructional process. The intent is to enhance physical activity, health and performance.

This Framework recognizes the need for physical educators to have knowledge and skill in both critical/reflective and technical areas. Teachers should cultivate their technical qualities to design and carry out efficient learning processes. They should also cultivate their critical/reflective qualities to examine the broader intentions of their instructional program and its relationship to society at large.

Perhaps the most outstanding feature of the professional is the capacity for self-evaluation and self-improvement through rigorous and systematic research and study of his or her practice. The image of the reflective teacher is an attractive one in which the problems of practice are open to reflection and inquiry.

(McKernan, 1991, p. 47)

6.8 Self-Assessment of Critical/Reflective Qualities

The Framework proposes three strategies for teachers to assess their critical/reflective qualities:

- **Increase Social Knowledge** - In order to better respond to the needs and interests of students, teachers should continue to acquire knowledge about the nature of social life as it relates to physical education, and to complementary fields such as

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recreation and sport. Teachers are also encouraged to seek knowledge about the social construction¹¹ of physical education knowledge.

- **Enhance Academic/Practical Skills** - Teachers should continue to refine their literacy, numeracy, and communications skills and thinking to further their thinking or understanding about the social nature of physical education. Reflection emphasizes the application of principles in examining social issues in physical education. On becoming reflective, teachers learn to expose their thinking to others and open themselves to critique through dialogue and collaborative assessment.
- **Develop Skills in Critical Discourse** - Teachers should examine their taken-for-granted practices and beliefs about physical education and strive for an open and continual process of revision. They go beyond the generic theories of teaching and learning to value their own personal theories of action which evolve from critically examined beliefs and past experiences.

(Adapted from Ross, E. W. & Hannay, L. M. 1986)

Teachers of physical education, in collaboration with their peers, supervisors and students, may ask a series of critical/reflective questions about physical education programs and daily lessons:

1. Whose definitions of physical education, sport, play, and recreation are dominant and whose are discredited?
2. Which groups have traditionally benefited from the physical education class and the school program in general?

11 All knowledge in education has been constructed by the social conditions present in our culture. The idolization of male-dominated, elite, professional sport is an example of how knowledge in physical education has been constructed.

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3. What are the relationships between physical education and other programs?
4. How can interactions during the physical education class make students aware of important moral and political questions such as equality and justice?
(See appendix E for a more complete list of critical/reflective questions about teaching physical education).

To be proficient in education in, through, and about the physical, a major outcome could be engendering critical consciousness about how and why physical education takes on its current form and content, which groups benefit from physical education and which groups are disempowered, and how physical education can be used for emancipatory purposes.

(McKay, J., Gore, J. M. & Kirk, D. 1990)

6.9 Self-Assessment of Technical Qualities

Teachers may use a series of questions based on the Teaching-Learning-Evaluation Process to self-assess their technical qualities:

- **Curriculum Planning** - Were the tasks planned progressively and developed in stages? Were lesson topics or activities sequenced appropriately?
- **Curriculum Content** - Did the learning tasks match the different levels of student ability? Were appropriate activities used?
- **Teaching and Learning Methods** - What teaching and learning strategies were applied? Did the strategies applied meet the differing needs of the learners? Were all learners provided with opportunities to progress?
(See Appendix D for an expanded list of questions to evaluate technical qualities of teaching)

The Personal-Global orientation encourages teachers to reflect on their self-assessment of technical qualities, and to become proactive in seeking a collaborative approach to teacher assessment.

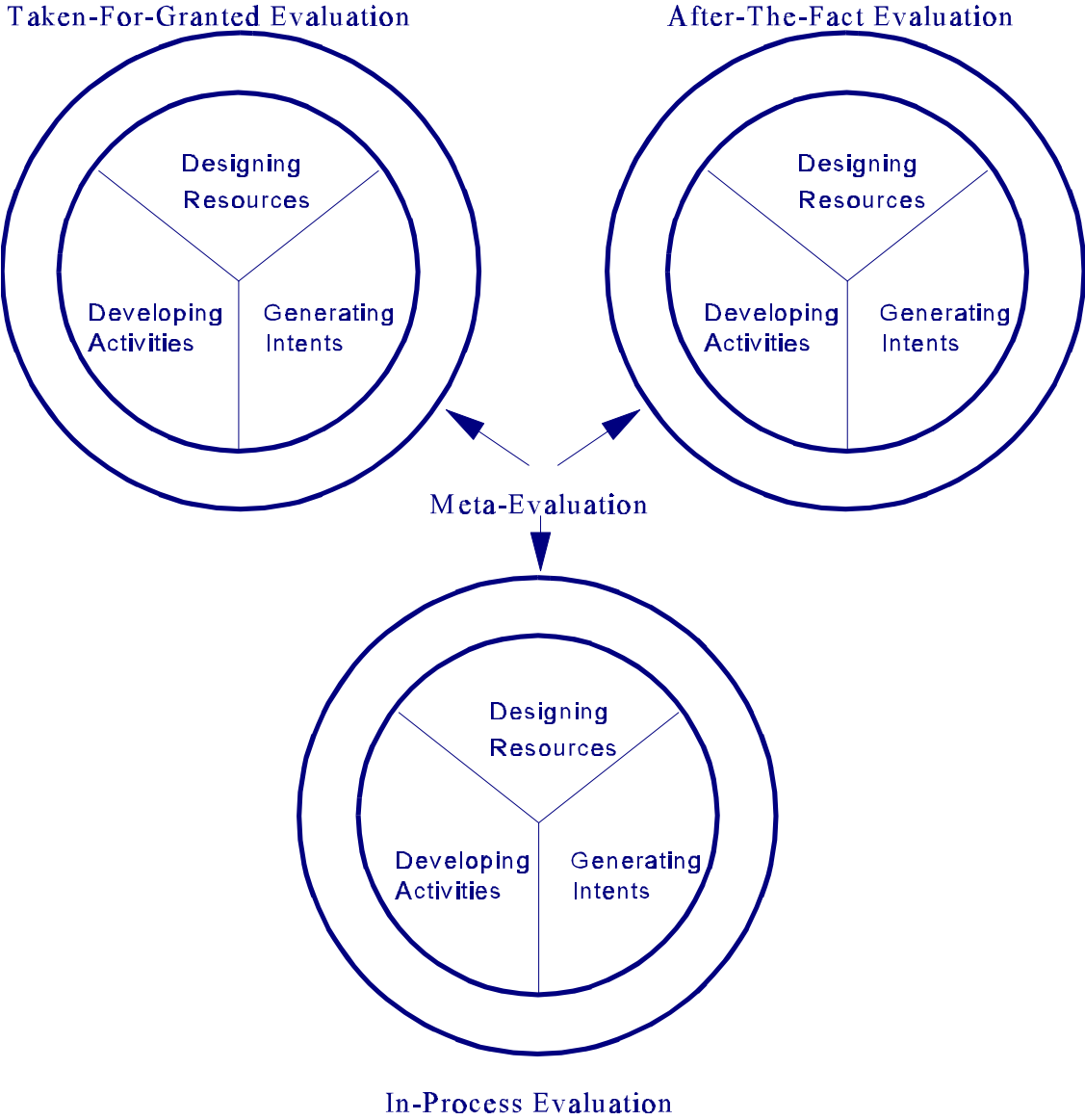
6.10 Curriculum Improvement

To evaluate a physical education curriculum in any particular setting, the program must be viewed as having three basic components which are interrelated with program development - outcomes, activities and resources. Figure 4 shows this relationship, and provides a visual overview of curriculum development and evaluation.

6.11 Basic Components of Curriculum - Outcomes, Activities and Resources

- **Outcomes** are the '*what*' of the curriculum. They are the intentions or purposes that provide focus, direction and guidelines for the experiences that learners encounter as they interact in and with the curriculum. Chapter 3 outlines the broad intentions as **general curriculum outcomes**, which are further specified in more detailed **key stage curriculum outcomes**, more specific intents or expectations are outlined in Curriculum Guides.
- **Activities** are the '*how*' of the curriculum. They are what teachers and students are supposed to be doing in order to achieve curriculum outcomes. These activities or tasks include teaching and learning strategies as outlined in Chapter 4.
- **Resources** are the '*with what*' of the curriculum. They constitute resource persons, situations and equipment (e.g. bats, balls, mats, music, video, textbooks, space). Resource materials for specific grades and courses are authorized and recommended by the Department of Education.

Figure 4: Program Development and Evaluation



(Source: Werner, W. & Aoki, T. 1979)

6.12 Four Dimensions in Evaluation of Program Development

Taken-for-granted evaluation is the making of implicit values, beliefs and assumptions explicit during the process of development. The choice of intents, activities and resource materials involves a selection process among a choice of alternatives, some of which are deemed better or having greater worth. This selection, an ongoing activity during curriculum deliberations, is a form of evaluation, but is implicit and usually 'taken-for-granted'. The role of curriculum developers in this dimension is to become aware of the taken-for-granted nature of selection, to make explicit and to question the criteria used in selecting intents, activities and resources.

In-process evaluation is the explicitly planned 'formative' judging of the curriculum while it is being planned. It is imperative that opportunities be provided for continuous contact and exchange of ideas from the beginning, and throughout the process. Various kinds of formative procedures may be used, such as the validation procedures used in the development of this curriculum framework. A group of teacher/practitioners were selected to react to and suggest further direction for the refinement of this Framework. Other procedures could include workshops, where curriculum developers from various disciplines share developments in their field, and are exposed to other projects and professional literature.

Pilot-testing has been frequently used as a form of "in-process" evaluation of potential learning resources, where portions of a curriculum are tested in various settings. Generally, during the development of curriculum guides, specific activities and resources are piloted to determine suitability at grade levels or in various settings. Teachers are asked to keep daily journals of their concerns and recommendations on curriculum materials, or complete questionnaires which are then used by the development team to revise the curriculum. A more appropriate formative evaluation of the curriculum process

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calls for an involvement of the teacher/curriculum developer while engaged in teaching. This form of curriculum development calls for an in-process evaluation in which individuals stand back and critically reflect upon their work. Critical questions posed by teacher/curriculum developers or a group of teachers and students invite clarification and further refinement of the curriculum process. For a series of critical questions see Appendix F.

After-the-fact evaluation is that part of the development that occurs after the curriculum has been developed, piloted and implemented. This explicit 'summative' judging of the curriculum, while generally removed in time from the development phase, should be considered a continuation of the development process. In keeping with the view that evaluation is best undertaken as a cooperative and collaborative venture, the Framework advocates an "action research" approach to curriculum development and evaluation, where formative and summative evaluation merge into a series of reflective cycles (see Appendix G for an overview of action research). When curriculum development and evaluation is undertaken as action research, a cycle of collaborative renewal and reform may be possible in school and community settings.

Meta-evaluation is the evaluation of the evaluative design and method used for the in-process and after-the-fact evaluation. It is an assessment of the formative and summative assessments of intents, activities and resources. Evaluation of evaluation keeps developers/evaluators from being encapsulated within one specific orientation (Werner & Aoki, 1979). This Framework encourages professionals in the field (teacher-researcher) to explore meta-evaluation as part of the overall plan for curriculum reform and renewal in physical education.

