THE PERCEIVED USE OF COMPETENCY-BASED INSTRUCTION BY PHYSICAL EDUCATION TEACHERS

by

PETER W. BUKHALA

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Faculty of Education
McGill University
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ABSTRACT

The purpose of the present study was to investigate the extent to which physical education teachers perceive that they use competency-based instruction and to assess some of the factors that influence them to use competency-based instructional strategies. It was also the intent of this study to design the Perceived CBI questionnaire specifically for this study.

The results indicated that physical educators did not utilize many of the CBI strategies frequently or all the time. Most evident was the lack of involvement of parents and volunteers in the instructional planning of individualized programs. Also evident was the limited use of the initial assessment information gathered from students to plan instructional programs that would meet the individual student's needs. A significant relationship between the perceived use of CBI by teachers and the years teachers have taught students with disabilities was noted. No significant relationship was noted between teachers' perceived use of CBI and (1) the number of years they have taught physical education, (2) the number of courses taken in adapted physical education and (3) the number of courses in special education. Significant differences were noted between the perceived use of CBI by teachers and the level of education, and the type of school setting.

RÉSUMÉ

Les buts de cette étude étaient: a) d'étudier dans quelle mesure les professeurs d'éducation physique perçoivent qu'ils ou elles utilisent les instructions basées sur la compétence (IBC); b) de déterminer certains des facteurs qui influencent ces mêmes professeurs à utiliser des stratégies d'instructions basées sur la compétence et c) de construire la «Perceived Competency Based Instruction Questionnaire».

Les résultats indiquent que les éducateurs physiques utilisent peu et rarement des stratégies d'instruction basées sur la compétence. Il es évident qu'il existe un manque d'implication des parents et des bénévoles dans la planification de programme d'instruction individuel. Il est aussi apparent que l'on utilise d'une façon limitée l'information acquise lors des évaluations préliminaires avec les étudiants pour planifier des programmes d'instruction allant à la rencontre de leurs besoins. Une condition positive et significative fut notée entre la perception d'utiliser des IBC et le nombre d'années qu'un professeur a enseigné à des élèves handicapés. Cependant, aucune corrélation significative n'a été observé entre la perception d'utiliser des IBC et (1) le nombre d'années d'enseignement en éducation physique; (2) le nombre de cours purs en éducation physique adapté et (3) le nombre de cours près en éducation spécialisée.

Les bacheliers en éducation physique se percevaient comme utilisant plus de stratégies d'IBC que les non-bacheliers en éducation physiques. Les professeurs enseignant dans les écoles spécialisées ou intégrées se percevaient comme utilisant plus de stratégies d'IBC que les professeurs d'enseignant à l'école normale.

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CHAPTER 1

The Perceived Use of Competency-Based Instruction By Physical Education Teachers

At least four distinct curriculum models based on differing theoretical approaches have been developed in adapted physical education. These curriculum models have had far reaching effects on the way teachers of disabled students design, implement and evaluate the instructional process. The four curriculum models have been termed a) the ability model (Austin, 1978; McNutt, 1988), b) the perceptual-motor model (Auxter, 1972; Eaves & McLaughlin, 1977; Kavale, & Mattson, 1983; Pyfer, 1988; Reid, 1981; Sherrill, 1988), c) the guided-discovery model (Dougherty & Bonanno, 1979) and d) the competency-based (also referred to as data-based, curriculum-based or objective-based) instructional model (Dunn, et al., 1986; Snell, 1988; Watkinson & Wall, 1982; Wessel, 1983).

Recent research studies have shown that there are some limitations in using the ability, the perceptual-motor and the guided-discovery models to teach students with disabilities. Some of these limitations include:

a) a lack of empirical evidence to support the assumption by proponents of the perceptual-motor approach that cognitive abilities are dependent on motor abilities (Ysseldyke & Salvia, 1981).

b) a lack of evidence that underlying factors can be identified and remedied directly as implied in the ability and perceptional-motor approaches (Davis, 1984).

c) overreliance on norm-referenced measurements in both the ability and perceptual-motor approaches to determine present and future motor performance of learners has been criticized for lacking a direct link to educational objectives (Davis, 1984; Dunn, et al., 1986; Jenkins & Pany, 1978; Lewko, 1977; Werder & Kalakian, 1985).

d) the failure of the guided-discovery approach to recognize the inability of some disabled individuals to initiate play even when play vehicles are provided (Titus & Watkinson, 1987), and for those who can initiate play they may be overselective (e.g autistic individuals) or they can not sustain themselves on one task long enough (Grosse, 1981; Reid & Morin, 1981). This approach, therefore, tends to be limited as a teaching method for learners with severe disabilities.

The Competency-Based Instructional (CBI) model has been proposed by various researchers (Dunn, et al., 1986; Tucker, 1985; Wessel, 1983; Wilcox, 1977) to provide a way of matching student ability to instruction thereby reducing low achievement and poor student behaviour responses. This is because the model unlike the other three instructional models (the ability, the perceptual-motor, guided-discovery):

> focuses on each student's entry skills relative to his or her course work, the instructional demands made of each student by various course assignments, and controlling the degree of task difficulty by adapting or modifying the various assigned tasks to match the student's abilities. (Gickling & Thompson, 1985: p 206).

This model, based on behavioural psychology (Auxter, 1977; Cancelli & Yoshida, 1987; Snell, 1988), emphasizes the interaction of the teacher, student and the environment. A number of assumptions form the basis for this model. First, it is assumed that every child is capable of learning if the teacher utilizes the appropriate combination of environmental factors that are commensurate with the child's learning rate and present skills (Dunn, Moorehouse, & Fredericks, 1986).

Second, it has been noted that disabled students learn in the same way as non-disabled peers, only that they learn slowly and may require more time to perform the same task as their non-disabled peers (Rarick, et al., 1970). What is required is to teach them well. Reid (1980) demonstrated that using mnemonic strategies to teach students with mental disabilities would significantly help them to perform well on tasks that require short term retention of motor information.

Third, the criteria for judging the effectiveness of an instructional program should be based on observable student performance, performance gains which are meaningful to the individual student, and instructional program components which are transferable to other settings (Wessel, 1983).

Despite a number of impressive efforts to highlight the advantages of using competency-based instruction to prepare physical educators to effectively teach students, little research has been conducted to evaluate the extent to which physical education teachers have actually adopted CBI in their teaching. Previous studies that have addressed this question in physical education have concentrated on emphasizing competencies or skills that professionals believe are important (e.g Hurley, 1981; Watkinson, 1985) with almost no follow-up studies to ascertain the extent to which teachers utilize these skills. As Umbreit, Garlan, York and Haring, (1980) have pointed out: "There has been an apriori assumption that the battle has been won once a set of post-training behaviours have been identified" (p.57).

Recent studies have indicated however that teachers do not always put into use new skills that they acquire in their professional preparation (Earls, 1981; Idol-Maestas & Ritter, 1985; Sparks, 1988). It has been reported that there is a "wash-out effect" of those skills and knowledge presumably learned by teachers during their pre-service and/or in-service programs (Beveridge, Gangstead, & McElroy, 1986; Kneer, 1986; Lawson, 1983; Templin, 1979).

A study by Rosenfield (1985) noted that teachers do not always put into use competency-based instructional strategies they acquired in the training programs; some of the teachers who attempt to use these strategies give up rather quickly, even when the techniques are working. This "wash out" effect has been attributed to a number of factors: a) professional socialization of teachers (Crasse, 1979; Idol-Maestas, & Ritter, 1985; Roberts & Blankenship, 1970), b) type of school in

which the teacher finds himself/herself. That is, those teachers in a segregated setting are likely to differ in their teaching strategies from those in a regular or integrated setting (Filer, 1982; Gans, 1985; Marston, & Leslie, 1983, Patrick, 1987; Rizzo, 1984; Santomier, 1985; Ysseldyke, Thurlow, Chrisenson, & McVicar, 1988), c) the training level, that is, those teachers who have acquired a certificate level, bachelor degree, or masters degree differ significantly in their abilities to teach students with disabilities (Gerston, Walker, & Darch, 1988; Minner & Knutson, 1982; Patrick, 1987; Sachs, 1988; Stewart, 1983; Stephen & Braun, 1980), d) teacher's experience in terms of number of years teaching (Brooks & Branford, 1971; Horner, 1979; Jansma & Shultz, 1982), e) exposure to students with disabilities. These variables have not been explored in greater detail on how they influence the extent to which physical education teachers use various competency-based instructional strategies.

Significance of the Study

There have been no studies with respect to physical education teaching that have looked at the extent to which physical educators have adopted Competency-Based Instructional strategies. Previous studies in physical education have focused on the development of training models and service delivery systems that would enhance the opportunities and learning potential of students (Hoover & Wade,

1987), however the extent to which physical education teachers have adopted Competency-Based Instruction needs to be assessed.

There is surprisingly little systematic inquiry into the relationship between the teaching methodologies acquired in teacher training programs and how they have been adopted by teachers (Sparks, 1986). Studies that have reviewed the extent to which physical education teachers use Competency-Based Instruction have usually restricted their discussion to only one area of CBI. For instance, Bird and Gansneder (1979) study investigated physical education teachers' knowledge of the nature and causes of disability conditions. Gullickson (1984), Wesson, King and Deno (1984) investigated teachers' use of tests, while Aufderheide, Mckenzie and Knowles (1982) have dealt with individualized instruction. Such results can be criticized for not providing a total picture of the teacher's instructional behaviours (Good, 1979). The present study may therefore provide a clearer understanding of teacher's use of Competency-Based Instruction from a broader level.

Emphasis on the use of Competency-Based Instructional strategies has been highlighted by educational experts as being appropriate to include all students in the learning procedures. Research on physical education teaching has only recently begun to generate a descriptive knowledge base (Earls, 1981) about the teaching methodologies that would effectively meet the needs of learners. A study of this nature may provide some notion of the extent to which teachers have adopted the use of competency-based instructional strategies and also provide a base from

which subsequent studies could be conducted to improve teacher training programs.

Statement of the Problem

The purpose of the study is to investigate the extent to which physical education teachers perceive that they use competency-based instruction and to assess some of the factors that influence them to use competency-based instructional strategies. It was also the intent of this study to create a research questionnaire which listed specific CBI strategies in order to find out the extent to which teachers perceived to use them.

Hypotheses

(1) There is a significant relationship between physical educators' perceived use of competency-based instruction and teaching experience.

(2) There is a significant relationship between physical educators' perceived use of competency-based instruction and their involvement with disabled students.

(3) There is a significant relationship between physical educators' perceived use of competency-based instruction and the number of courses they have taken in special education.

(4) There is a significant relationship between physical educators' perceived use of competency-based instruction and the number of courses they have taken in adapted physical education.

(5) There is a significant difference among school settings with regard to the physical educators' perceived use of competency-based instruction.

(6) There is a significant difference among educational levels with regard to the physical educators' perceived use of competency-based instruction.

Limitations to the Study

One of the limitations to this study was that not all competencies that have been suggested by various professionals could be included in the questionnaire. There were many items that could have been included to fully represent the universe of competencies and attitudes related to teaching learners with disabilities. Due to the limitations of the instrument (Questionnaire) used in this study, this was not possible. To control for this limitation, a random selection of item statements from each of the competency areas was done.

Another limitation to this study was the lack of a direct measurement of the extent to which teachers' use of competency-based instruction. A more direct approach to investigating the extent to which teachers use of competency-based instruction would have been to observe physical education teachers in a class environment teaching, so that the instructional competencies shown could be charted and compared for all the teachers involved in the study. However, this would not be feasible due to the amount of time and the financial implications such an approach would entail. The use of a questionnaire to collect self-evaluative data has been used and supported as a viable research tool. Since the respondents were assured of anonymity, it was hoped that their responses would be honest and accurate evaluations of their perceived use of competency-based instruction.

Definitions

Teaching experience - refers to the number of years of full time teaching.

Training level - refers to the total number of courses taken in adapted physical education and special education.

Type of school - refers to regular school, segregated schools, integrated school, and special classes in integrated school.

Regular school - refers to the school primarily designed for non-disabled youngsters.

Segregated school – refers to the school primarily designed for youngsters with disabilities.

Integrated school – refers to a regular school in which students with disabilities are integrated for the majority of the school day.

Special class school – refers to a school in which there are special classes designed for disabled students but the class remains intact for the majority of the school day.

Universe of teaching competencies – refers to generic content areas that are currently deemed necessary for successful teaching of learners with disabilities.

CHAPTER II

REVIEW OF LITERATURE

This chapter is divided into two main areas. The first part gives an overview of the theoretical basis for the competency-based instructional model. The second part provides a review of research on the efficacy of utilizing competency-based instructional strategies by classroom teachers.

Theoretical Basis of CBI Model

Competency-Based Instruction (CBI) has been described as a methodology that enables teachers to achieve goals that correspond to instruction and student progress on curriculum related tasks (Fuchs, Fuchs & Stecker, 1989). CBI requires teachers to define instructional objectives based on the student's ongoing performance in existing course content (Gickling & Thompson, 1985). The CBI model incorporates behavioural principles in order to eliminate instructional mismatch between the student ability and instructional demands.

Maher and Forman (1987) have noted that the contemporary behavioural approach to education encompasses a wide range of procedures derived from the

principles of a) operant conditioning, b) classical conditioning, c) social learning interventions and d) cognitive behaviour modifications.

As described by Maher and Forman (1987), operant conditioning principles (developed from Skinner's operant conditioning theory) assumes that an individual's behaviours operate on the environment in order to produce certain consequences. These consequences lead to an increase or decrease of the behaviours. In order to change the behaviour of an individual one has to maintain or change the relationship between specific overt behaviours and their consequences. Some of the intervention strategies that have been used to achieve this goal involve using continuous or intermittent reinforcement and shaping.

Classical conditioning principles (developed from Pavlov's classical conditioning theory) involve pairing a neutral stimuli (Conditioned stimuli) in the environment with the targeted stimuli elicited by the individual so that a conditioned response occurs. Examples of intervention techniques that employ these principles include, backward chaining, forward chaining, prompting and provision of incentives when correct behaviours are elicited.

The social learning interventions (developed from Bandura's social learning theory) assume that an individual can acquire desired behaviours by observing a model performing the desired behaviour. The behaviour modeled is then symbolically coded and the reproduced by the learner. Some of the strategies that have been used to help students imitate desired behaviours include, modeling and generalized imitation.

Cognitive behaviour modification techniques assume that restructuring of an individual's cognitive process would lead to behaviour change. Most notable interventions include, response prompting and problem solving strategies.

Competency-Based Instruction relies heavily on assessment of the student's performance on a continuous basis. Assessment plays a major role in identifying the student's initial abilities, determining suitable objectives for each student, charting student progress in the set objectives, and identifying the extent to which the entire program developed has been attained. Assessment at the initial level serves as a screening procedure that enables the teacher to design instructional objectives that could be achieved by the student. Two major assessment methods which are used in CBI include norm-referenced measurements and criterion-referenced measurements.

Norm-referenced measurements are tests that examine a student's performance in relation to a representative group (Werder & Kalakian, 1985). The test scores obtained from norm-referenced tests are useful in the screening process of the student since they indicate how far along the normal developmental continuum a student stands in relation to his/her peers. These tests are also useful in generating ideas about those attributes of the learner which need improvement (Eaves & McLaughlin, 1977). Some of the norm-referenced tests that have been used in the area of physical education to measure motor performance of students include the Bruininks-Oseretsky Test of Motor Proficiency (Bruininks, 1978); and Test of Motor Impairment (Stott, Moyes & Henderson, 1972).

Criterion-referenced tests compare a student's motor performance based on predetermined criterion, rather than on the performance of a norm group. The performance of each student is judged on an individual basis against an established criterion of either a mature pattern of performance or a developmental sequence (Davis, 1984). This view contrasts with the norm-referenced tests which use performance scores of peers of the same chronological age-criterion as the basis for judging performance. Examples of criterion-referenced tests include the Ulrich's test of motor development (Ulrich, 1985); the I CAN Program (Wessel, 1976); the PREP program (Watkinson & Wall 1982); and the Data based gymnasium program (Dunn, Moorehouse & Fredericks, 1986).

The information gathered through these assessment methods, provides a basis for designing an appropriate individualized educational program (IEP). Assessment data collected about a student's strengths and weaknesses in motor performance, is useful for physical education teachers to select appropriate instructional strategies for each student. The IEP developed for the student depends on such factors as the student's needs, desires of parents, and the environment in which the student is expected to practice the skills learned. The student's performance on the IEP is evaluated from time to time to reveal what skills within the curriculum have or have not been learned as well as to provide an index of student progress (Jenkins & Pany, 1978). Once the skills identified in the IEP have been attained at the criterion level, they are maintained through reinforcement strategies, and generalized to other situations within the learner's environment.

The performance of the student on the IEP determines whether the program has to be modified or maintained. Modification of the program may involve such strategies as, breaking down the initial objectives into small steps (task analysis) to enable each learner to progress at a pace appropriate to his or her motor ability. It may also imply using different reinforcement strategies, cues, or prompts to enable the student to reach desired levels of motor performance.

A number of advantages have been cited in the literature to support the use of CBI. For example, Salvia and Ysseldyke (1985) have noted that CBI provides a means by which teachers may structure their teaching strategies in order to provide enhanced feedback from learners. Teachers are able to monitor the performance of each student on a continuous basis thus ensuring that targeted skills are mastered.

Fuchs and Fuchs (1986) have observed that the use of CBI strategies enables teachers to monitor student performance more systematically, objectively and frequently. Learning is structured at a pace that enables each student to progress through the instructional sequences without much difficulty.

CBI has also been supported by educators and legislators as the model that is flexible to accommodate the needs of learners with varying abilities. Goguen (1980) has indicated that Public Law 94–142 enacted in the United States of America congress in 1975 has been influential in educational policies that have been adopted in the United States and in many provinces across Canada. Public Law 94–142 requires that educational services be determined and delivered on the basis of each child's individual needs rather than on the basis of predetermined,

categorical needs recommended in professional educational literature (Seaman, 1988). These requirements make it impossible to use traditional instructional methods to meet the needs of each learner. Competency-Based Instruction offers a wide variety of instructional strategies that meet the needs of all learners as required by the principles of PL 94-142. These include, continuous assessment, individualized instruction, behaviour management, team teaching involving both school personnel and parents.

Although many advantages have been cited for using programs developed from behavioural principles, a number of possible limitations must be examined. Cancelli and Yoshida (1987) have identified three factors which may limit teachers from adopting this model. First, they have observed that the perceptions of various school personnel about what behavioural assessment is, its value to school practice, and its relationship to existing assessment employed in educational decision making may influence the way teachers accept and use it.

Second, the readiness of school personnel to adopt methods that are at variance with traditional school practices and which would require modifications in existing systems is crucial. This view supports the contention of Crasse (1979) that most public schools are bureaucratic structures characterized by a hierarchy of authority, impersonality, division of labour, and formalized rules and work regulations. In such an environment, teachers, regardless of the quality of training preparation in CBI, are moulded into roles devised to maintain stability and the

status quo. Thus, the young physical education teacher soon realizes his/her survival in the school will depend on meeting the established code of regulations.

Third, Lentz and Shapiro (1986) have also noted that the demands on teachers' time restricts the application of CBI. This is due to the fact that CBI requires teachers to individualize the educational programs for learners, continuously monitor each learner's progress, work on a multidisciplinary committee, train volunteers to assist students achieve desired goals, and also be able to modify the programs to suit the level of student performance (Davis, 1984).

In sum, the conceptual principles underlying the Competency–Based Instruction have been based on behavioural psychology. This model has been advocated on the basis of its ability to provide accountability for the education provided to each learner. The strength of the CBI is the continuity it provides in developing and evaluating programs based on student learning. However, the effectiveness of CBI has been reported mainly in classroom research. Most of the literature in physical education has in the past relied heavily on generalization of the classroom research on CBI to the physical education setting. It may be misleading to assume that generic variables that have been identified in classroom research are applicable to physical education setting. Further research is therefore necessary to find out the extent to which physical educators use Competency–Based Instruction in their classes.

Efficacy Studies on Teachers' Use of CBI Strategies

Assessment

A number of studies have reviewed the assessment strategies of teachers and have reported varying conclusions. Lewko, (1976) conducted a survey to determine the current practices in evaluating motor behaviour of children with disabilities in 750 facilities in the United States and Canada. Results of this study indicated inappropriate evaluation practices, lack of consistency in the usage of various tests across professions and in some cases motor behaviour was not evaluated. He concluded that these results might be due to little structure in professional training to guide the behaviour of personnel who provide motor evaluation services.

Wesson, King and Deno (1984) noted that although many teachers were familiar with competency-based assessment strategies, relatively few of them had adopted these strategies. Some of the reasons suggested for this state of affairs have been based on teachers reports that the procedures are time consuming (Kneer, 1986) and lack of adequate assistance to enable teachers to utilize appropriate assessment skills (Santomier, 1985).

Gullickson (1984) conducted a survey involving a stratified random sample of 450 elementary and secondary teachers to investigate the extent to which they perceived themselves to use tests for classroom instructional purposes. The results of this study indicated that teachers perceived themselves as having an adequate

knowledge of testing, though not necessarily knowledgeable in standard test construction techniques. Most of the teachers in this study believed they learned how to test through "on-the-job experience". These results may be interpreted to imply that teachers, though comfortable in their knowledge of testing, may be much less well prepared than is desirable to objectively assess student performance.

Bennett (1983) has indicated that there is evidence to suggest that some teachers tend to select tools in a routinized manner without consideration for the purposes of assessment, the instrument's technical adequacy for those purposes, or even the basic descriptive information contained in the instrument manuals. It is possible that those teachers who have been reported to be comfortable with assessment skills are in fact not objective in their self-evaluation. These results corroborate earlier observations by Fuchs, Fuchs and Warren (1982) who noted that although teachers express confidence in being able to evaluate accurately student achievements, they are bound to be biased when judging students' success in attaining objectives set. They concluded that the reliability and validity of results obtained from teacher ratings were bound to be questionable. The data on CBI by Blankenship (1985) have indicated that student performance in basic skills can be reliably and validly assessed by teachers using competency-based instruction. However, this data comes from experimental conditions.

Stamm (1980) noted that teachers have not been prepared to conduct assessment for the purpose of determining the student's learning strengths and weaknesses and therefore they use inappropriate knowledge and skills that result in

failure of students to acquire necessary skills. This view has been supported by Ysseldyke (1983), who indicated that special education teachers rarely used assessment data to make decisions on the instructional process. Two likely explanations for this have been suggested by Pyl (1989) who noted that (1) assessment data obtained from standardized measures were difficult to translate into decisions about goals, objectives and methods; (2) teachers were not interested in detailed and precise information on new students gathered by others.

The importance of continuous monitoring of student progress has been emphasized in competency-based instruction as a useful strategy that results in greater student achievement of set objectives. Tousignant and Siedentop (1983) noted that on-task-time was higher when the teacher monitored the work of students frequently and when accountability was demanded of both teachers and students. But as indicated by Placek (1983) and Veal (1988), physical education teachers have been noted to be reluctant to use formal, systematic assessment practices. This has been attributed to complaints by teachers who feel that frequent assessment is time consuming. Gullickson (1984) noted that while teachers agree that testing will increase student effort and improve the learning environment, they felt tests were more useful in measuring lower cognitive levels of learning.

The general conclusion that one would make from the studies discussed above is that teachers do not monitor student performance regularly, or for those who report to use assessment strategies, they do not utilize the information gathered for instructional decisions. It may be possible that a lack of teacher sophistication

information on the extent to which physical education teachers perceive themselves to use competency-based assessment methods.

Individualized Instruction

Recent concerns about the most effective teaching methods to meet the needs of learners have led some researchers to suggest that individualized instructional strategies are essential. Individualized instruction appears to be most ideal to meet the needs of students with varying abilities in the classroom. The formulation and application of IEP principles however require teachers to be well equipped to make individualization a reality. Previous studies (Annarino, 1976; Cobbe, 1974; Delquadri, et al., 1986; Melville, 1972; Stinson, 1978; Young, 1975; Woods & Zakrajsek, 1985) which have looked at the efficacy of using IEP strategies show that these strategies are as effective and in some cases, more effective than the traditional methods of instruction. Melville (1972), compared two groups of 20 college students on the rate of acquisition of badminton skills as measured by hierarchical structural sequences of skills. One group was instructed through an individualized instructional program while the other group was taught using traditional methods. The skills taught included the serve, clear, and the drop shot. Each group was pre- and post-tested. After fifteen 10 minute practice sessions by each group, there were significant differences in units gained in the

clear, serve and drop shot in favour of the group using the individualized instructional program.

Goldstein, Strickland, Turnbull and Curry (1980), have indicated that the major positive outcome of IEP development is the ease with which the teacher is able to effectively plan for his/her students on a short or long term basis. This view has recently been supported in a study done by Fuchs, Fuchs, and Stecker (1989), who investigated the effects of competency-based measurement (CBM) on the instructional planning strategies of 30 teachers randomly assigned to three instructional groups (computer-assisted CBM group, non-computer CBM group, and a contrast control group). The teachers in the three groups were required to specify 15-week reading goals, a system to evaluate student progress toward goals at least twice weekly and also determine when instructional modifications were necessary. Analysis of the results after the 15 week period, showed that although there were no significant differences between the CBM groups, it was evident that instructional planning by teachers who utilized CBM were more specific, complete and acceptable as opposed to the contrast group. The CBM groups employed more objective data bases to determine whether instructional modifications were necessary. On the other hand, the contrast group who did not use CBM did not systematically formulate their instructional objectives.

However, other studies have indicated that teachers do not always use individualized instructional strategies when faced with students with differing abilities. For example, Ysseldyke, et al. (1988) examined the extent to which

different instructional groupings were used for different categories of mildly disabled students in different instructional settings. A total of 30 mentally retarded students, 30 learning disabled students, 32 behaviourally disturbed, and 30 non-disabled students were observed for a whole day in 10 second intervals. Results showed that while disabled students received in general, more individualized instruction in the special education setting, the only significant effect that emerged was that those students in the self-contained placements spent a greater proportion of special education time in entire group instruction. Some of the reasons that have been given to explain these results include, a lack of time to effectively individualize instruction and a lack of adequate preparation to use individualized instructional strategies.

Brophy and Evertson (1977) have indicated that those teachers who were successful in producing student learning gains tended to have higher expectations and assumed personal responsibility to ensure that students attained desired goals. Whenever problems were encountered, they were viewed as obstacles that could be overcome by discovering appropriate teaching methods, and did not view the problems as arising from the student. It is assumed that teachers who believe student learning can be influenced by effective teaching, and who also have confidence in their own teaching abilities, would persist longer, provide a greater academic focus in the classroom and exhibit different types of feedback than teachers who have lower expectations concerning their ability to influence student learning (Gibson & Dembo, 1984).

Martinek and Karper, (1983) have reported that teachers tend to provide more subject-matter-knowledge in the form of technique instruction to the high expectancy student (67%) than the low expectancy students (32%). Furthermore, in spite of their differential expectations for their students, effective teachers are likely to accept the responsibility to teach all their children by providing them with every possible way of reaching their potential. This is achieved by varying the subject matter, instructional methodologies and good evaluation devices so that each student is provided with an appropriate mode of learning.

Munby (1981) has noted that teachers and researchers do not always attach equal significance to and derive identical meanings from the same situations. He observed that teachers do not judge information by such criterion as objectivity. Rather data are tested against the accumulated personal experience. When teachers are asked to engage in behaviours that violate their own understanding of situations or that place them in conflict with their personal value system they will tend to resist such attempts (Rosenfield, 1985). These views support Fuchs and Fuchs' (1984) observations that teachers prefer unsystematic impressions over objective measurement when formulating decisions about the adequacy of instructional programs and student progress toward goals.

Although it has been noted that teachers do not always put into practice those skills that they learned in teacher training programs, it is not clear whether this has any relationship with the quality of training received. It was therefore the

purpose of this study to examine the extent to which teachers perceive themselves to use specific instructional strategies that have been proposed in the CBI model.

Multidisciplinary Consulting

One of the tenets of competency-based instruction requires school personnel to work as a multidisciplinary consulting team in order to make decisions for individual student education programs. Arguments for a multidisciplinary consulting team have been based on assumptions that such an approach would result in decision processes being orderly, efficient, and relatively fast paced since goals will be clear to all involved with the student learning (Fenton, et al., 1979). These advantages have been supported in the literature based on legislative assumptions (Maher & Yoshida, 1985; Morgan, 1982; Turnbull, Turnbull & Wheat 1982). Ballard-Campbell and Semmel (1981) have noted that sources of influence such as litigation, opinions of parents and educators, and school administrators have been more influential in developing educational policy and legislation than research evidence.

It has been suggested that parental participation in the education of their children would assure that the decisions made by educators are in the interest of the child and such participation would guarantee school accountability (Ford, et al., 1980). Parents could be involved at different levels. Such involvement may include

child management, discussion groups, teacher-aides in the classroom and counselling. What has been written about parental involvement in IEP process has been based on the basic tenets of legislation such as the PL 94-142 in the U.S.A; but few data are available concerning the success of such parental involvement in school programmes. Morgan (1982) has noted that the research available indicates that parental participation is limited to a passive role of listening to the school personnel. These findings support earlier investigations by Yoshida, et al. (1978), Gilliam and Coleman (1981), and Lusthaus, et al. (1981) who had earlier noted that parents' role in influencing or contributing to IEP committee decisions was lower than that of the special education teacher, psychologists, other ancillary personnel, consultants and regular classroom teachers.

Several constraints to meaningful involvement of parents in the educational process have been identified. Some of these constraints include a) reluctancy among educational personnel to involve parents due to fears that parents are overprotective over their children and hence are likely to interfere in the classroom instruction, b) lack of knowledge by teachers on how to include parents in their programmes (Goldstein, et al., 1980; Schuck, 1979), c) lack of knowledge by parents regarding alternative placements and educational options leading to dependency on professionals to make decisions for them, d) the image of the school as a complete authority is firmly entrenched in the minds of teachers and parents. Parents have fears and anxieties that interfere with their ability to participate fully in the education of their children (Shultz, 1982) while teachers feel they have the

expertise that parents lack and do not need assistance from parents to make decisions. Parents are therefore considered outsiders. Ysseldyke, et al. (1982) in an observational study of team functioning noted that team members were rarely encouraged to participate and as a result some sat through the meeting without contributing to discussions.

The emphasis of multidisciplinary consultation in the competency-based instructional model would presuppose that teachers who adopt this approach in their teaching will fully utilize all available personnel services in order to meet the needs of all students in the class. However, a major obstacle to the conduct of multidisciplinary consulting is that consultation goals and objectives have to be established for all students. Fenton, Yoshida, Maxwell, and Kaufman (1979) have noted that multidisciplinary team members experience difficulty stating goals and functions and have ambiguous expectations about what their role should be.

The time required to identify student needs imposes constraints on consultants (Feld, et al., 1987). Thus, for multidisciplinary consulting to be effective, each team member has to possess skills that will help him/her to focus attention to aspects of interest to the team. There is apparently very little information about physical educators involvement in a multidisciplinary consulting. There is therefore a need to examine the extent to which physical educators perceive that they use multidisciplinary consultation strategies in there teaching.

Behaviour Management

The development of behaviour management techniques which would effectively and efficiently increase students acquisition of motor skills is a major concern of competency-based instruction. Behaviour management is the use of procedures which are based on operant and classical conditioning principles of learning. Behaviour management strategies when used with care have been shown to be instrumental in altering student behaviour (Luke, 1987; Stainback, Stainback & Froyen, 1987). Behaviour management strategies lay emphasis on observable and measurable behaviours, defining precise intervention strategies that would assist in changing targeted behaviours.

Research studies have repeatedly substantiated that an effective teacher is first an effective class manager. Luke, (1987) has defined class management as the ability of the teacher to organize the elements of the learning environment and to maintain appropriate behaviour of pupils. Since physical education occurs in a dynamic environment with constant movement, a wide range of facilities, great variety of equipment, potential dangers and many different class groupings, the role of the teacher is more challenging.

In other studies (Grant, Ballard, & Glynn, 1989; Stainback, Stainback & Froyen, 1987), it has been observed that the amount of time students spend actively engaged in learning tasks is related to the level of student achievement. On the other hand poor class management has been shown to be responsible for time

wastage on managerial activities, thus reducing learning time (Siedentop, 1983). Some of the management strategies that have been shown to enable students focus on desired goals include, a) careful monitoring of each pupil's behaviour, b) redirecting those who stray off task, c) removal of destructive objects in order to decrease inappropriate behaviour and d) reinforcing appropriate behaviours.

Overall, this chapter dealt with instructional strategies that research studies have indicated shown teachers use. The first part gave an overview of the theoretical basis for the competency-based instructional model. The second part provided a review of research on the efficacy of utilizing competency-based instructional strategies by classroom teachers. The general conclusions that can be made from the studies reviewed above is that instructional strategies by teachers have not provided adequate information on how physical educators select and use strategies that have been shown to effectively meet the needs of students. Second, relatively little information is available as to the extent to which teachers use these strategies. Third, it has been indicated that teachers use unsystematic instructional methods in their classrooms. It is therefore warranted that further studies be conducted to provide further information about the extent to which physical educators perceive that they use contemporary instructional strategies.

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate the extent to which physical education teachers perceive themselves to use competency-based instruction. It was also the intent of this study to create a research questionnaire which listed to specific CBI strategies in order to find out the extent to which teachers perceived to use them. The following chapter is subdivided into four sections: (1) subject selection (2) questionnaire development (3) procedures (4) treatment of data.

Subject Selection

A total of 1,000 schools across Canada were surveyed (See Table 1). In each of the cases, questionnaires were mailed to physical educators through the principals. Selection of the schools was done by sampling 582 schools from about 13,330 public schools listed in the Directory of Canadian Schools (Jacobs, Vol.1 and 2, 1986). This represented about 4 percent of all the schools. In addition, all the 418 special schools listed in Jacobs (1983, vol. 2) were surveyed. The principals were requested to hand the questionnaires to those teachers who were

currently teaching physical education. The distribution of the schools sampled for this study are shown in Table 1.

TABLE 1

Approximate Number of Schools in each Province

Province	Public Schools		Special Schools
	Number	Sample Size	Number
Alberta	1,222	53	13
British Columbia	1,430	62	74
Manitoba	708	31	2
New Brunswick	480	21	2
Newfoundland	603	26	6
Nova Scotia	580	25	2
Ontario	4,180	183	292
Prince Edward Island	69	3	2
Quebec	3,009	132	20
Saskatchewan	928	41	3
Yukon & N.W. Territories	121	5	2
Total	13,330	582	418

Instrumentation

A questionnaire was chosen as the research tool in order to gather information from a large sample of physical education teachers across Canada in a relatively short time period. This was necessary in order to minimize costs. The advantages

and disadvantages of using a questionnaire have been noted by a number of authors (Berdie & Anderson, 1974; Kidder, 1981). Among the advantages of the questionnaire method are:

(1) A large amount of information can be obtained at a low cost.

(2) Subjects can complete the questionnaire at the time when it is convenient to them.

(3) The questionnaire approach facilitates information collection from a large sample of population in a short time.

(4) The ease of questionnaire distribution allows for coverage of larger geographic areas.

(5) Individuals are more likely to respond to a questionnaire at their own convenience and if it is anonymous.

(6) The questionnaire offers a standardized format of questioning hence interviewer bias is avoided.

The disadvantages of using questionnaire include:

(1) There is a tendency for reduced response rates when this method is used.

(2) The ability to ask complex questions at length and in depth is limited.

(3) The questions are standardized thus the ability to get full, detailed answers through clarification and probing is limited.

(4) Individuals get so many requests to fill in questionnaires that they may be prejudiced against them.

Although there are disadvantages to using a questionnaire, the advantages for developing and using one in the current study outweighed those of a second option, that is, direct observation of teachers in the classroom.

Questionnaire Development

Within the limits of this study a decision had to be made to claim content validity of the items in the questionnaire. Safrit, (1981) has noted that one way of establishing content validity of items that represent a content universe, is to develop a table of item specification. In order to achieve this, a review was conducted of the competency lists researchers and professional groups have cited as being important for teachers of disabled learners, resulting in twenty five such lists (see Table of Item Specification in Appendix A).

Sources of the literature reviewed (1985–1989) included Educational Resources Information Clearinghouse (ERIC), Current Index to Journals in Education (CIJE), using the following descriptors: Competencies, teacher competencies, teacher training, instructional competencies, teacher effectiveness. A manual search of the following journals in physical education and special education was also done: Canadian Association for Health, Physical Education and Recreation (CAHPER), Adapted Physical Activity Quarterly (APAQ), Journal of Physical

Education and Recreation (JOPERD), The Physical Educator Journal, Journal of Learning Disabilities, Exceptional Children, Teaching Exceptional Children Journal, Teacher Education and Special Education Journal (TEASE). In addition the following textbooks in adapted physical education were reviewed; Auxter and Pyfer, (1985); Arnheim and Sinclair, (1985); Cratty, (1989); Dunn, Moorehouse and Fredericks, (1986); Eichstaedt and Kalakian, (1987); Fait and Dunn, (1984); French and Jansma, (1982); Seaman and Depauw, (1989); Sherrill, (1986); Sherrill, (1988) and Wiseman, (1982).

A number of the items identified from the literature differed in terminology but after analysis of the competency statements within each item, those that matched were classified according to their functions and/or similarities in emphasis. For example, Hudson, et al, (1987) have identified general/special knowledge as one of the competencies teachers have to possess, while Stainback and Stainback, (1987) have referred to the same competency as content knowledge.

The lists of teaching competencies were categorized in nine global competency areas. Some competency areas seemed to be emphasized more by some professionals than others. For instance, individualized instruction, assessment, program planning, behaviour management and consulting were emphasized more than communication skills, modification of programs, placement skills, and remedial teaching skills. It is important to note that the question of some content or behaviour areas receiving too much or too little emphasis by educators, is one of

educational importance depending on an individual's philosophical inclinations, rather than the importance of the item itself (Safrit, 1981).

From the table of item specification, a list of competency statements were developed for five of the content areas that received the greatest emphasis, that is, assessment, program planning, individualized instruction, behaviour management, and consulting. It is from these statements that the perceived teacher use of Competency-Based Instruction questionnaire was developed. The first draft of the questionnaire, consisting of 44 statements, was circulated to four professors and four graduate students within the McGill physical education department to determine clarity and adequacy of the instrument. Their suggestions were incorporated into the second draft. For example some of the items were found to be redundant and were deleted also suggestions on the format of the questionnaire were adopted. A pilot study of the second version of the questionnaire was conducted with a representative sample of ten physical education teachers in schools within Montreal area to further determine clarity and adequacy of the instrument. The views of these teachers together with comments made by the thesis committee members in the colloquium were incorporated in the third version of the questionnaire (see Appendix B). In this manner content validity of the instrument is claimed.

It was also necessary to translate the CBI questionnaire into French so that teachers in schools sampled in the province of Quebec would have a choice of answering the questionnaire in a language in which they were conversant. The

initial translation was done by a bilingual graduate student in the Department of Physical Education. The translation was then given to an independent French-speaking evaluator to ascertain its accuracy and readability. Her views were incorporated in the second version of the questionnaire. In order to verify the accuracy of translation, this revised draft was then translated back into English which compared favourably to the original English version. Thus, the second French draft was therefore adopted for use in the present study (see Appendix C).

Procedures

Two copies of the questionnaire were sent to the school principals with a request letter enclosed (see Appendix D) to distribute the questionnaires to those teachers currently teaching physical education in their schools. The teachers answered 48 items of which 40 were based on a five-point Likert type scale; while the remaining 8 items requested personal information from each teacher.

A self-addressed stamped envelope was enclosed for the teachers to return duly filled the questionnaire as soon as possible. Although the questionnaire was self-explanatory and could be completed without additional directions, a cover letter (see Appendix E) was enclosed to each physical education teacher to explain the purpose of the study, to assure the subjects of individual anonymity, and to encourage a prompt response.

Design and Treatment of the Data

Three methods of data analysis were used: (1) Frequency distribution, (2) Correlation analysis and (3) Analysis of Variance. Frequency distributions for teachers' responses on each question were computed and presented as percentages. Pearson Product correlation was computed to find out whether a relationship existed between teachers perceived use of Competency-Based Instruction and (1) number of courses taken in adapted physical education, (2) number of courses received in special education, (3) years of teaching physical education and (4) years of teaching learners with disabilities.

The ANOVA was used to determine if differences among teachers regarding the use of CBI were related to: a) type of school setting (segregated, integrated, special class in a regular school, regular school), b) educational level, c) teachers views and d) training adequacy. The Generalized Linear Model (GLM) Procedure was used for the analysis of variance. The GLM procedure was preferred since it is suitable for unbalanced data analysis (SAS Institute Inc. 1985).

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study was to investigate the perceived use of competency-based instruction by physical education teachers. It was also the intent of this study to create a research tool that included specific CBI strategies in order to find out the extent to which teachers perceive to use them. This chapter is divided into five sections. The first part, deals with personal profile of the subjects. These include gender, years of teaching physical education, experience with disabled students, level of education obtained, courses taken in physical and special education and the type of school. The second part reports the percentage of responses by teachers on each of the remaining areas of the CBI questionnaire. These include the perceived use of CBI, perceived adequacy of training and teachers' views on CBI. The third deals with the relationship between various personal profile variables and teachers' perceived use of CBI strategies, teachers' views on CBI and the perceived adequacy of training in CBI. The fourth part deals with differences among the various educational levels attained by teachers with regard to perceived use of CBI adequacy of training and their views toward CBI.

Personal Profile of Subjects

A total of 235 questionnaires were returned from physical education teachers in schools that had initially been sampled. Twenty-two of the questionnaires returned were not filled out since the schools did not have a physical education program, or the schools had been closed down. Two hundred and thirteen (213) of the questionnaires received from respondents were used in the final analysis. The breakdown of the respondents by province is shown in Table 2. The highest percentage returns were from the province of New Brunswick (60.9%). It is evident that the total response rates (21%) were not as high as would have been expected from the initial sample. It is possible that lower responses were due to the time of the year the questionnaire was sent out. The questionnaires were sent to schools in May, a time when teachers are likely to be busy with preparations for the end of the year. It is also possible that many teachers may have simply ignored the questionnaire. Some of the schools sampled from the 1986 directory of Canadian schools may have changed over the years and thus some of the questionnaires may not have reached the schools; in fact, some questionnaires were returned. Due to financial constraints, no attempt was made to solicit more responses. However, the number of returns (21%) is within the expected rate of return for surveys carried out by mail (Kidder, 1981; p. 150).

TABLE 2

Breakdown of the Respondents by Province

Province	Sample Surveyed	Number of Responses	Percentage of Respondents
Alberta	66	24	36.4
British Columbia	136	25	18.4
Manitoba	33	9	27.3
New Brunswick	23	14	60.9
Newfoundland	32	12	37.5
Nova Scotia	27	8	29.6
Ontario	475	71	14.9
Prince Edward Island	5	3	60.0
Quebec	152	30	19.7
Saskatchewan	44	13	29.5
Yukon & N.W.Territories	7	4	57.1
	1,000	213	21.3

Gender

The questionnaires received from 213 subjects consisted of 137 (65%) males and 73 (35%) females. Three respondents did not indicate their gender.

Education

The data on educational level is shown in Table 3. The results indicated that over half of the teachers had at least obtained a bachelors degree in physical

education. This may be an indication that more physical education teachers are receiving higher education. These results concur with a recent Cross-Canada survey (Watkinson & Bentz, 1986) which indicated that out of 1,107 teachers surveyed in 1,556 schools, half of the physical education teachers had obtained at least a degree in physical education. None of the respondents had attained a Doctorate degree. However, as observed from Tables 4 and 5, very few of the respondents had received any courses in adapted physical education or special education. These results again tally with the cross-Canada survey cited above where only 19% of the physical education teachers had taken a course in adapted physical education during their training.

Table 3

Percentage of Respondents According to Level of Education

	Respondents		
Level of Education	**Female**	**Male**	**Total**
No degree in P.E	8.2 (6)*	12.4 (17)	23
Some courses in P.E	20.5 (15)	18.2 (25)	40
Diploma in P.E	5.5 (4)	6.6 (9)	13
Bachelors Degree	57.5 (42)	55.5 (76)	118
Masters Degree	8.2 (6)	7.3 (10)	16
Total	100.0 (73)	100.0 (137)	210

( )* Denotes Frequency

Table 4

Number of Courses Taken in Adapted Physical Education

Number of Courses	Frequency	Percent
0	89	42.4
1	44	21.0
2	34	16.2
3	18	8.6
4	11	5.2
5	6	2.9
6	2	1.0
7	1	0.5
10	1	0.5
15	1	0.5
20	1	0.5
21	1	0.5

Table 5

Number of Courses Taken in Special Education

Number of courses	Frequency (n=209)	Percent
0	125	59.5
2	17	8.1
3	10	4.8
4	8	3.8
5	6	2.9
6	1	0.5
8	1	0.5
9	2	1.0
10	1	0.5
11	1	0.5
12	4	1.9
14	1	0.5
18	1	0.5
30	1	0.5

Type of School Setting

Table 6 illustrates the frequency and percentage of teachers according to the type of school setting in which they teach. Over half of the respondents taught in regular schools. The fewest responses came from teachers whose primary duty was teaching students with disabilities in special classes and from those who taught in segregated schools. It is possible that many of the schools that were sampled no longer exist, especially with increasing emphasis on integration. Most of the teachers reported that they taught in regular schools. It is likely that there may be a few students with disabilities who have integrated to these regular schools but since

Table 6

Number of Teachers According to School Setting

Type of School	Frequency (n=211)	Percent
Segregated school	25	11.8
Integrated school	41	19.4
Special class	14	6.6
Regular school	131	62.1
Total	211	100.0

Frequency Missing = 2

the numbers are likely to be small, they may not be in the classes of many of the teachers who answered the questionnaire.

Teachers' Views About CBI

Table 7, shows the percentage responses by teachers about their views on competency based instructional. Overall, the respondents were moderate in their responses to all the seven questions. Half of the teachers thought competency-based instruction was valuable if used selectively (Question 38) and another half of the teachers thought that competency-based instruction was not appropriate for their classes. Another 30% did not think the wide variety of students made it impossible for them to use competency-based instructional strategies. Thirty seven

percent (37%) of the teachers reported that the number of students in their class made it impossible for them to use competency based instruction (Question 37). About 67% of the teachers reported that they did not have support personnel to assist them in class management. Only 28% of the teachers either agreed or strongly agreed that they had adequate time to use competency–based instructional strategies in their classes. On the whole, the respondents had mixed feelings about CBI. Anecdotal notes from a number of respondents emphasized that the time available was not adequate for them to effectively use CBI strategies. However, their responses on Question 33 regarding their perceived availability of time was positive. These results are consistent with earlier findings by Price and Goodman (1980) who investigated 85 teachers representing 22 school districts in Pennsylvania on the amount of time spent developing IEPs. They observed that on the average time teachers took to develop IEPs was 390 minutes. Of this, 265 were taken from the school day while the remaining 125 minutes came from the teachers' personal after school time. It is therefore possible that teachers find CBI too demanding. In such conditions, teachers are likely to introduce changes in the instructional strategies for personal preferences or class management reasons instead of being concerned about student achievement of the instructional objectives (Brophy, 1982).

Some of the options that could be adopted in the school systems to overcome the perceived limitations of utilising CBI by teachers would include using more teacher aides in order to allow teachers time to plan and monitor individual student performance, and encouraging multidisciplinary consulting

Table 7

Percentage of Responses by Teachers' Views On Competency-based Instruction

Questionnaire Items	Questionnaire Options				
	Never	Rarely	Some-Times	Fre-quently	Always
33) I have adequate time to use competency-based instructional strategies in my class.	11.8	22.5	37.7	23.0	4.9
34) I have the resources necessary to enable me to use competency-based strategies.	9.3	27.5	34.8	23.5	4.9
35) The number of students in my class makes it possible for me to use competency-based instruction.	10.3	27.0	32.4	24.0	6.4
36) I have support personnel to assist me in class management.	38.1	25.7	12.4	19.3	4.5
37) Competency-based instruction is not appropriate for my class since skill development is not the major focus of my program.	18.1	34.3	29.9	11.8	5.9
38) I have found competency-based instruction to be valuable when used selectively.	2.5	5.0	42.3	41.8	8.5
39) The wide variability in student performance makes it impossible for me to use competency-based instructional strategies.	10.9	33.2	35.1	16.8	4.0

among school personnel so that what is covered in one class is reinforced in the other classes.

Training Preparation in CBI

Table 8, shows the percentage responses by teachers on how they perceived their training prepared them to use competency–based instructional strategies. Overall, less than fifty percent of the teachers perceived that they were well trained to use any of the five CBI strategies. These results concur with Salend and Johns (1983) study which indicated that the data on the background of many physical education teachers show a lack of training in content areas that would enable them to assist students to acquire skills described in the IEP.

Table 8

Teachers Perception of the Adequacy of Their Training in CBI

	Questionnaire Options				
Questionnaire Items	Poorly Prepared	Fairly Prepared	Adequately Prepared	Well Prepared	Very Well Prepared
Assessment strategies	18.4	21.4	29.6	25.2	5.3
Program planning	6.8	17.0	29.3	29.9	17.0
Individualized instruction	4.9	18.0	32.5	34.5	10.2
Behaviour management	8.6	21.9	34.8	25.7	9.0
Multidisciplinary consulting	4.8	26.2	31.9	21.9	5.2

Although respondents had indicated that they used both behaviour management and program planning strategies frequently or always, it was evident that less than 50% of them perceived that they were well trained to use these strategies. This may appear to be a contradiction but as noted by Crasse (1979), teacher training has limited impact on the extent to which teachers use those skills acquired during training. The school environment seems to be a stronger agent that ultimately shapes the way teachers use various strategies (Veal, 1988). Those school settings requiring teachers to demonstrate their achievements are socialized to adopt an orientation consistent with the demands of the school.

Perceived Use of Competency-Based Instruction

Assessment

Teachers were asked to describe the extent to which they perceived themselves to use assessment strategies. As illustrated in Table 9, less than half (42%) of the teachers perceived themselves to use competency-based assessment strategies frequently or always while 29% reported that they never or rarely used the assessment strategies. Approximately 71% of the teachers reported that they continuously monitored students progress frequently or always. Over half of the teachers perceived that they gathered information frequently or always to determine the student's present strengths and weaknesses. Only 20% of the respondents perceived that they frequently or always used the information gathered to write individualized instructional strategies while 30% perceived that they frequently or always used the data collected to place each student at an appropriate instructional level. About 38% did not use assessment data to revise instructional plans based on student performance.

Table 9

Teachers' Perceived Use

Of Competency-Based Assessment Strategies (Percentage)

Questionnaire Items	Questionnaire Options				
	Never	Rarely	Some-Times	Fre-quently	Always
1) Gathering information to determine the present level of functioning of each student.	1.4	11.4	34.0	38.4	14.7
2) Using standardized measurement tests (e.g Canada Fitness Test) to assess the strength and weaknesses of each student.	11.3	18.4	26.9	25.0	18.4
3) Continuously monitoring the progress of students and recording their performance.	1.4	11.3	16.0	41.0	29.6
4) Using assessment data to write individualized instructional objectives.	19.0	29.0	31.8	12.8	6.6
5) Using assessment data to place each student at an appropriate instructional level.	15.7	27.7	29.0	22.9	6.7
6) When students do not achieve established objectives, assessment data is used to revise the instructional plan accordingly.	7.7	20.6	33.5	28.2	10.0

These results clearly show that the respondents used assessment mainly for testing and grading. These results may be a reflection of the respondents' narrow perspective of what assessment entails. In this study, forty percent of the teachers reported that their training was either poor or at most fair. Baumgartner and Horvat (1988) have noted that until recently many textbooks in physical education did not explore the area of assessment in detail. As a result of this scarcity, physical

education teachers may possess a limited amount of information about the various roles of assessment in the education of learners.

Previous studies (Allal, 1988; Crasse, 1979; Lawson, 1983; Sarason, 1982) have reported that the work circumstances of physical education teachers contributes to a professional socialization that excludes the systematic use of assessment methods learned during professional preparation courses. It is likely that even among those who were adequately trained in assessment methods do not put into practice all the assessment strategies learned during teacher training.

Program Planning

Teachers were asked to respond to six questions (Table 10) on how they perceived themselves to use CBI strategies to plan their instructional programs. Teachers' responses on each of the six questions were very encouraging. For example, 90% of the teachers perceived that they selected activities that were functionally useful to the learner, task analyzed the skills so that students would easily learn the tasks. Another 87% reported that they varied the degree of game competition to enable each learner to fully participate. On the whole, teachers perceived that they used program planning strategies frequently or always.

These results are very encouraging if indeed teachers use these strategies noted in the present study. These results do not reflect the extent to which respondents perceived the training they received had prepared them to adequately

Table 10

Teachers' Perceived Use of

Program Planning Strategies (Percentage)

Questionnaire Items	Questionnaire Options				
	Never	Rarely	Some-Times	Fre-quently	Always
8) Selecting activities or skills to be learned That will be functionally used by the learner.	0.0	0.9	9.5	56.4	33.2
9) Breaking down tasks into small sequential steps to help students learn the prescribed skills.	0.0	1.4	8.9	33.3	56.3
10) Selecting instructional strategies based on each learner's strengths and weaknesses.	3.3	13.2	30.2	39.6	13.7
11) improvising activities and games to encourage students with varying abilities to participate.	1.9	6.1	24.9	47.4	19.7
12) Varying the degree of competition in games to recognize the differential interests and abilities of participants.	0.9	3.3	8.5	38.0	49.3
13) Providing more opportunities for learners who have not attained the desired skill levels to practice these skills in other settings.	1.9	14.6	32.1	36.3	15.1

use program planning strategies. Only 47% of the respondents perceived that their training prepared them well or very well in program planning strategies. Borg (1975) has provided a possible explanation for these results. He observed that there is little evidence to suggest that teacher training has a significant impact on subsequent behaviours of teachers. Pease (in Crasse, 1979) has suggested that what

seems to dictate the instructional strategies used, is the feedback the novice teacher receives from students and/or the school system. Thus, it is possible that teachers acquire these strategies "on-the-job".

Individualized Instruction

Table 11 shows teachers responses on each of the seven items. Teachers were asked to describe how they perceived themselves to use individualized instruction in their teaching. About 13% of the respondents reported that they used volunteers or parents in the class instruction. Another 22% of the teachers reported that they frequently or always contracted with individual students to accomplish prescribed activities. Overall, a high percentage of the teachers perceived that they used individualized instruction frequently or always. These results show that the least used strategies are those that include volunteers or parents and contracting with individual students.

Table 11

Teachers' Perceived Use of Individualized Instructional Strategies (Percentage)

Questionnaire Items	Questionnaire Options				
	Never	Rarely	Some-Times	Fre-quently	Always
16) Providing ample instruction in addition to appropriate practice for each student to develop his/her skills.	0.0	4.2	16.9	43.7	35.2
17) Using volunteers or parents to enhance the learning of students in the class.	23.6	34.9	28.8	7.5	5.2
18) Conducting class activities to encourage cooperative interaction among students.	0.5	0.5	15.0	52.6	31.5
19) Providing frequent positive feedback to reinforce student learning.	0.0	0.5	10.3	37.1	51.1
20) Using appropriate prompts (including physical, visual, and/or verbal) to facilitate progressive skill learning.	0.0	1.9	16.0	48.8	33.0
21) Practising skills learned in a "one to one" or small group setting in novel situations to encourage the generalized use of these skills.	1.4	5.2	35.4	40.1	17.9
22) Contracting with individual students to accomplish prescribed activities.	14.2	27.5	36.5	17.5	4.3

Because of the tremendous effort teachers have to put into planning to involve volunteers and also to contract with individual students, it is possible that many of the teachers find these strategies too demanding. Thus, they are likely to avoid them unless the school program requires that they use these strategies.

Behaviour Management Strategies

Table 12, illustrates a summary of teachers responses on how they perceived to use behaviour management strategies. A majority of the respondents (86%) stated they ensure that students moved from one activity to the other without much delay. Most of the teachers (81%) reported that reinforced student performers frequently. Another 84% reported that they taught and reinforced personal behaviours that helped reduce inappropriate behaviours. Overall, a majority of the respondents perceived that they used behaviour management strategies frequently or always. These results are encouraging as noted earlier for teachers perceived use of program planning strategies. However, these results have to be interpreted cautiously. First, as Fuchs and Fuchs (1984) have reported, teachers tend to overestimate the success of their instruction. The high scores by respondents on behaviour management strategies may be a reflection of earlier observations (Placek 1983; Siedentop, Mand, & Taggart, 1986) that physical education teachers are more comfortable helping students to enjoy, participate in class activities, and to maintain class discipline but rarely do they monitor or lay an emphasis on acquiring motor skills. This is mainly because there is little pressure from students, parents or administrators to have physical education teachers to account for their teaching (Veal, 1988). Schools seem to put more pressure on physical education teachers to maintain discipline but rarely are they required to account for student achievement.

Table 12

Teachers Perceived Use of

Behaviour Management Strategies (Percentage)

Questionnaire Items	Questionnaire Options				
	Never	Rarely	Some-Times	Fre-quently	Always
24) Organizing class activities to ensure students move from one activity to the other without delays.	0.5	0.9	12.7	56.3	29.6
25) Reinforcing personal behaviours that approximate the desired response until criterion level of performance is achieved.	0.9	1.9	16.4	49.3	31.5
25) Gradually fading reinforcers as the performance of each student approximates the desired level.	1.4	12.7	30.2	41.0	14.6
26) Teaching and reinforcing personal behaviours that reduce inappropriate behaviours.	1.5	3.3	12.7	46.0	37.6

Multidisciplinary Consulting

As shown in Table 13, teachers responded modestly on the five questions. A very small percentage of teachers (5%) perceived that they involved parents in planning for their children's IEP. Thirty percent (30%) of the teachers reported that they utilized multidisciplinary consulting skills frequently or always. About half of the teachers reported that they always or frequently interacted with other professionals to better meet the needs of each child while about another third (31%) of the teachers reported that they planned their IEPs cooperatively with

other school personnel frequently or all the time. The overall picture emerging from these results show that teachers do not use multidisciplinary consulting strategies frequently. These results may imply that physical education teachers lack the skills that would enable them to work with other personnel in order to meet the needs of the students in their classrooms. Previous studies (Gilliam & Coleman, 1981; McLaughlin, et al. 1988; Strickland, 1982) have indicated that teachers are not trained to work with parents. Thus, they are likely to avoid involving parents in developing instructional programs for their children.

Table 13

Percentage of Responses by Teachers on Perceived Use of Multidisciplinary Consulting Strategies

Questionnaire Items	Questionnaire Options				
	Never	Rarely	Some-Times	Fre-quently	Always
28) Involving parents in planning for their children's individualized educational program.	44.3	36.3	14.2	3.8	1.4
29) Planning cooperatively with other resource personnel to meet the needs of each student.	10.3	23.5	35.2	25.8	5.2
30) Using older and/or more skilled children to teach younger and/or less skilled children.	6.6	14.6	38.7	31.1	9.0
31) Interacting with other professionals to better meet the needs of each child.	2.8	11.3	31.0	39.9	15.0

Another possible reason for the lack of parent involvement in school instructional programming, is the belief that parents lack the necessary knowledge to participate effectively in instructional decision making. Goldstein, et al. (1980) have observed that teachers feel parents are over-protective of their children and hence are not competent to objectively judge what is good for them.

On the other hand, teachers may be willing to use volunteers or parents, but as observed from the responses of teachers in this study, they do not have personnel to assist them. Allen and Hudd (1987) have noted that the school is a structured bureaucratic entity with limited options for teachers to include in their

instructional programs all the strategies they learned in training. For example, teachers rarely have the extra time needed to incorporate new ideas in their teaching. Thus those teachers who may want to use volunteers are restricted under such conditions. Also as noted by Yoshida, et al. (1978) parents may hesitate being actively involved in their children's learning because they do not feel qualified to help in developing instructional programs. As long as their children appear to be progressing and are happy in school, parents have less concern about the curricula offered in the school (Yoshida, 1982).

Although there have been studies suggesting that parental involvement in the IEP process is beneficial for learners, no data have been reported concerning the impact of parental participation on other instructional processes (Morgan, 1982). Without such information, it may be possible that the emphasis on parental participation in the IEP process lacks empirical support.

The Relationship Between Various Personal Variables And the Perceived Use of Competency-Based Instruction

A Pearson Product Moment Correlation was computed to ascertain the relationship between various personal variables and the perceived use of CBI strategies, teachers' views towards CBI and training adequacy. These variables include: (a) years teaching physical education, (b) years teaching students with

disabilities, (c) number of courses received in adapted physical education, and (d) number of courses taken in special education. The score for the perceived use of CBI by teachers was computed by simply adding the response numbers for each subject. For example the highest score one would attain on the five areas of CBI strategies tested was 140 and the lowest score would be 28. The highest possible score for teachers views on CBI and training preparation would range from a minimum score of 7 to a maximum of 35 and 5 to 25 respectively. Thus a continuous variable of ordinal measurement was derived for each subject's response on the four different sections of the questionnaire.

As shown in Table 14, a significant correlation was noted between the perceived teacher use of CBI and years of teaching students with disabilities $r=.33$ $p<0.0001$. Also, a significant correlation was noted between the number of years teachers had taught students with disabilities and a) views about CBI (Table 15) and b) perceived training preparation (Table 16). There was a significant and positive relationship between the number of years teachers had taught students with disabilities and all the five variables. However these correlations were low for all cases. Overall, no significant relationship was noted between the perceived use CBI and the number of years teaching, number of courses taken in adapted physical education and also the number of courses taken in special education. However, two CBI strategies (assessment and multidisciplinary consulting) were noted to be significantly correlated to the number of courses taken in special education.

Table 14

The Relationship Between Personal Variables

and Perceived Use of CBI (Pearson Product Moment Correlations)

Perceived Use of CBI	# of course in Special Ed.	Years of Teaching	Years Teaching Disabled Students	# of courses in APE
CBI (overall)	.06 n=196	-.00 n=198	.33** n=196	-.02 n=196
Assessment	.14** n=203	-.05 n=205	.28** n=203	.04 n=203
Program Planning	-.06 n=206	.04 n=208	.20** n=206	-.14 n=206
Individualized Instruction	.00 n=206	.01 n=208	.25** n=206	-.01 n=206
Behaviour management	-.03 n=209	.01 n=211	.24** n=209	-.4 n=209
Multidisciplinary Consulting	.15 n=209	-.04 n=211	.28** n=209	.10 n=209

** Significant p< .05

Table 15

The Relationship Between Personal Variables

and Teachers' Views on CBI (Pearson Product Moment Correlations)

Perceived Use of CBI	# of course in Special Ed.	Years of Teaching	Years Teaching Disabled Students	# of courses in APE
Teachers' Views on CBI	.08 n=194	-.10 n=195	.14** n=193	-.00 n=194

** Significant p< .05

Table 16

The Relationship Between Personal Variables and Teachers' Perceived Training Adequacy in CBI (Pearson Product Moment Correlations)

Perceived Use of CBI	# of course in Special Ed.	Years of Teaching	Years Teaching Disabled Students	# of courses in APE
Training Preparation	.03 n=143	.05 n=145	.21** n=144	.05 n=143

** Significant p< .05

The correlational results support the second hypothesis that the perceived use of CBI by physical education teachers is significantly related to the teacher's involvement with students with disabilities. But teaching experience in physical education, number of courses taken in physical education, and special education were not significantly related to the perceived use of CBI as suggested in hypothesis one, three and four. It appears that exposure to learners with varying disabilities provides teachers with practical experience of putting into use many of the CBI strategies learned during training. Students with various disabilities present different instructional difficulties that force teachers to develop instructional strategies that will meet the needs of each learner. Whereas teachers who teach non-handicapped students are not faced with such obvious barriers that would force them to plan instruction with each student in mind. They may assume that all the students in the class are capable of performing to the typical standards. Thus some

of the strategies that are emphasized in the CBI may be ignored by the teachers if they perceive the strategies are not crucial for students to acquire set goals.

The lack of a significant correlation between the perceived use of CBI by teachers and the number of years teachers have taught physical education or with the number of courses taken in adapted physical education and special education support earlier observations (Lortie, 1975) that formal training in pedagogy at the university plays little part in changing teachers views on what encompasses good teaching strategies. Unless the strategies emphasized during training are in agreement with the teacher trainee's views, more training will not lead to adoption of these strategies. It has been argued (Zeichner & Tabachnick, 1981) that trainees retain the traditional perspectives with which they began training. The many hours students spent observing their teachers' instructional methods play a more important influence than the skills acquired during training. Unless the knowledge transmitted to teacher trainees is geared toward providing an explanation as to why, how and when the CBI strategies have to be used, more training will not lead to adoption of current methods that have been shown to be effective.

Differences Among Teachers as a Function of the Educational Level Attained

Means and standard deviations were computed from the total scores of the respondents on each section of the CBI questionnaire (i.e the perceived use of CBI, adequacy of training and teachers' views of CBI.

Table 17 shows means and standard deviations for teachers' perceived use of CBI as a function of educational level attained. A significant difference $F(4,192) = 2.53$, $p<0.04$ was noted (Table 18). The least significant difference (LSD) post-hoc T-test (Table 19) revealed that teachers who had received a bachelor's degree perceived themselves to use more CBI strategies than those who had no degree in physical education. Further analyses were computed for each of the five areas of the CBI strategies. Table 20 shows means and standard deviations for teachers' perceived use of individualized instruction as a function of educational level attained. Significant differences were noted as a function of educational level attained $F(4,202) = 3.35$, $p <0.01$ (Table 21). Tukey's post-hoc test (Table 22) revealed that teachers who had received a Bachelor's degree perceived that they individualized their instruction more than those who had not attained any degree in physical education.

Table 17

Descriptive Statistics for Teachers' Perceived Use of CBI as a Function of Educational Level Attained

	Descriptive Statistics	
Level	**Mean**	**STD**
No degree in P.E	94.70	15.30
Some Courses in P.E.	99.18	14.34
Diploma in P.E	93.36	13.76
Bachelors Degree in P.E	102.22	12.25
Masters Degree in P.E.	101.64	12.14

Table 18

Analysis of Variance for the Perceived Use of CBI by Teachers as a Function of Educational Level Attained

Source	DF	SS	MS	F-value	PROB.>F
Education	4	1740.581	435.145	2.53	0.042
Error	192	33075.591	172.2687		
Total	196	34816.17			

Table 19

Least Significant Difference Post Hoc Test for the Perceived Use of CBI by Teachers as a Function of Educational Level Attained

Education Level Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	
1 - 2	-11.301	-4.462	2.377	
1 - 3	-8.158	1.332	10.822	
1 - 4	-13.470	-7.539	-1.608	***
1 - 5	-15.723	-6.947	1.828	
2 - 3	-3.069	5.794	14.658	
2 - 4	-7.942	-3.076	1.789	
2 - 5	-10.579	-2.485	5.609	
3 - 4	-17.054	-8.871	-0.687	***
3 - 5	-18.710	-8.279	2.151	
4 - 5	-6.751	0.591	7.934	

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 20

Descriptive Statistics for Teachers' Perceived Use of Individualized Instruction As a Function of Educational Level Attained

	Descriptive Statistics	
Level	Mean	STD
No Degree in P.E	23.70	3.52
Some Courses in P.E	25.38	3.94
Diploma in P.E	23.77	3.85
Bachelors Degree in P.E	26.22	3.39
Masters Degree in P.E	25.06	4.63

Table 21

Analysis of Variance For Teachers' Perceived Use of Individualized Instruction as a Function of Educational Level Attained

Source	DF	SS	MS	F-value	PROB.>F
EDUCATION	4	177.88	44.47	3.35	0.011
ERROR	202	2681.517	13.27		
TOTAL	206	2859.40			

Table 22

Tukey's Studentized Range (HSD) Test for Teachers' Perceived Use of Individualized Instruction

Education Level Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	
4 - 2	-1.017	0.840	2.696	
4 - 5	-1.513	1.162	3.836	
4 - 3	-0.478	2.455	5.388	
4 - 1	0.239	2.528	4.818	***
2 - 4	-2.696	-0.840	1.017	
2 - 5	-2.655	0.322	3.300	
2 - 3	-1.596	1.615	4.827	
2 - 1	-0.948	1.689	4.326	
5 - 4	-3.836	-1.162	1.513	

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 23 shows the means and standard deviations of the total scores for the perceived adequacy of teacher training preparation in CBI. A significant difference $F(4,138) = 3.98$, $p<0.004$ (Table 24) was noted among teachers as a function of educational level attained. Tukey's post-hoc test (Table 25) shows that teachers who had received a Bachelor or Masters degree in physical education perceived that they were more adequately prepared to use CBI strategies than those who had no degree in physical education.

No significant differences were noted among teachers on their views about CBI as a function of educational level attained.

Table 23

Descriptive Statistics for Teachers' Perceived Adequacy of Training Preparation to Use CBI Strategies As a Function of Educational Level Attained

	Descriptive Statistics	
Level	**Mean**	**STD**
No Degree in P.E	19.95	3.35
Some Courses in P.E	18.84	3.23
Diploma in P.E	19.17	2.72
Bachelors Degree in P.E	19.91	3.87
Masters Degree in P.E	20.00	4.81

Table 24

Analysis of Variance for Teachers' Perceived Adequacy of Their Training Preparation to Use CBI Strategies as a Function of Educational Level

Source	DF	SS	MS	F-value	PROB.>F
Education	4	12.912	3.22	3.98	0.0044
Error	138	111.966	0.811		
Total	142	124.878			

Table 25

Tukey's Studentized HSD Test for Teachers' Perceived Adequacy of Training Preparation to Use CBI as a Function of Educational Level Attained

Education Level Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	
5 - 4	-3.221	0.941	5.103	
5 - 3	-2.967	2.600	8.167	
5 - 3	-1.698	3.017	7.733	
5 - 1	0.251	5.333	10.416	***
4 - 5	-5.103	-0.941	3.221	
4 - 3	-2.503	1.659	5.821	
4 - 2	-0.850	2.076	5.002	
4 - 1	0.906	4.392	7.879	***
3 - 5	-8.167	-2.600	2.967	

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

In light of these observations, we can surmise that physical education teachers who have received a bachelors degree perceive to use more of the CBI strategies than those without any training in physical education. The lack of any significant difference among teachers in the other categories of educational level attained by teachers may be due to two factors. First, these results may be a reflection of what earlier research (Beveridge, et al., 1986; Earls, 1981) had referred to as a wash out effect of the skills learned during training period.

These results may also be a reflection of the depth of training offered at every level of training in CBI strategies. As reported in a recent cross-Canada survey of 1,500 schools (Watkinson & Bentz, 1986), very few of the teachers who respondent to the survey had taken any courses in adapted physical education. In addition, the few graduate programs offered in physical education programs in universities across Canada are very specialized (Evans, 1988).

Differences Among Teachers' Perceived Use of CBI, Training Adequacy and Views on CBI As a Function of the School Setting

Table 26 shows means and standard deviation from the total scores of teachers' perceived use of CBI as a function of the type of school setting. Significant differences $F(3, 193) = 8.12$ $p<0.0001$ (Table 27) were observed as a function of the type of school setting. Tukey's post-hoc comparison test (Table 28) showed these differences to be between teachers in segregated and integrated schools. Teachers in segregated and integrated schools perceived themselves to use more CBI strategies than teachers in regular schools. Further analyses were computed for each category of the CBI strategies. Significant differences were noted among teachers in the four school settings and their perceived use of assessment, program planning, individualized instruction, multidisciplinary consulting strategies (Tables 29-41).

Table 26

Descriptive Statistics for the Perceived Use of CBI by Teachers as a Function of Type of School Setting

	Descriptive Statistics	
Type of School	Mean	STD
1 Segregated School	108.54	10.55
2 Integrated School	104.30	12.99
3 Special Class	103.92	11.57
4 Regular School	96.81	13.00

Table 27

ANOVA for Teachers' Perceived Use of CBI as a Function of Type of School Setting

Source	DF	SS	MS	F-value	PROB.>F
TYPE	3	3898.766	1299.588	8.12	0.0001
ERROR	193	30907.903	160.144		
TOTAL	196	34806.67			

Table 28

Tukey's Studentized Range (HSD) Test for Teachers' Perceived Use of CBI as a Function of Type of School Setting

Type Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
1 - 3	-1.970	0.403	2.775
1 - 2	-1.239	0.565	2.368
1 - 4	0.300	1.852	3.404 ***
3 - 1	-2.775	-0.403	1.970
3 - 2	-2.038	0.162	2.362
3 - 4	-0.550	1.449	3.449
2 - 1	-2.368	-0.565	1.239
2 - 3	-2.362	-0.162	2.038
2 - 4	0.014	1.287	2.560 ***

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 29

Descriptive Statistics for the Perceived Use of Assessment as a Function of Type of School Setting

	Descriptive Statistics	
Type of School	Mean	STD
1 Segregated School	22.25	3.35
2 Integrated School	20.68	4.24
3 Special Class	20.57	4.16
4 Regular School	17.90	4.40

Table 30

Teachers' Perceived Use of Assessment Strategies as

A Function of Type of School Setting

Source	DF	SS	MS	F-value	PROB.>F
TYPE	3	549.7945	183.265	10.17	0.0001
ERROR	200	3602.362	18.0118		
TOTAL	203	4152.156			

Table 31

Tukey's Studentized Range (HSD) Test for Teachers' Perceived

Use of Assessment Strategies

Type Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
1 - 2	-1.264	1.575	4.414
1 - 3	-2.019	1.679	5.376
1 - 4	1.904	4.353	6.802 ***
2 - 1	-4.414	-1.575	1.264
2 - 3	-3.311	0.104	3.518
2 - 4	0.783	2.778	4.774 ***
3 - 1	-5.376	-1.679	-2.019
3 - 2	-3.518	-0.104	3.311
3 - 4	-0.423	2.675	5.772

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 32

Descriptive Statistics for the Perceived Use of Program Planning Strategies as a Function of Type of School Setting

Descriptive Statistics		
Type of School	**Mean**	**STD**
Segregated School	30.12	2.93
Integrated School	28.93	3.77
Special Class	27.46	2.90
Regular School	27.34	4.08

Table 33

ANOVA for the Perceived Use of Program Planning Strategies By Teachers as a Function of Type of School Setting

Source	**DF**	**SS**	**MS**	**F-value**	**PROB.>F**
TYPE	3	207.789	69.263	4.70	0.003
ERROR	203	2993.206	14.745		
TOTAL	206	3200.995			

Table 34

Tukey's Studentized Range (HSD) Test for Teachers' Perceived Use of Program Planning Strategies as a Function of Type of School Setting

Type Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
1 - 2	-1.331	1.193	3.717
1 - 3	-0.743	2.658	6.060
1 - 4	0.609	2.784	4.959 ***
2 - 1	-3.717	-1.193	1.331
2 - 3	-1.701	1.465	4.631
2 - 4	-0.194	1.591	3.376
3 - 1	-6.060	-2.658	0.743
3 - 2	-4.631	-1.465	1.701
3 - 4	-2.770	0.126	3.021

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 35

Descriptive Statistics for the Perceived Use of Individualized Instructional Strategies by Teachers as a Function of Type of School Setting

	Descriptive Statistics	
Type of School	Mean	STD
Segregated School	27.16	3.59
Integrated School	26.32	3.94
Special Class	26.62	3.55
Regular School	24.84	3.56

Table 36

ANOVA for the Perceived Use of Individualized Instructional Strategies

By Teachers as a Function of Type of School Setting

Source	DF	SS	MS	F-value	PROB.>F
TYPE	3	168.783	56.261	4.25	0.006
ERROR	203	2686.869	13.236		
TOTAL	206	2855.652			

Table 37

Tukey's Studentized Range (HSD) Test for Teachers' Perceived Use of Individualized Instructional Strategies as a Function of Function of Type of School Setting

Type Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
1 - 2	-1.549	0.843	3.234
1 - 3	-2.678	0.545	3.767
1 - 4	0.263	2.324	4.385 ***
2 - 1	-3.234	-0.843	1.549
2 - 3	-3.298	-0.298	2.701
2 - 4	-0.210	1.481	3.172
3 - 1	-3.767	-0.545	2.678
3 - 2	-2.701	0.298	3.298
3 - 4	-0.964	1.779	4.523

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 38

Descriptive Statistics for the Perceived Use of Multidisciplinary Consulting Strategies by Teachers as a Function of Type of School Setting

	Descriptive Statistics	
Type of School	Mean	STD
Segregated School	12.76	2.44
Integrated School	12.20	2.52
Special Class	12.36	2.41
Regular School	10.91	2.88

Table 39

ANOVA for the Perceived Use of Multidisciplinary Consulting Strategies By Teachers as a Function of Type of School Setting

Source	DF	SS	MS	F-value	PROB.>F
TYPE	3	115.275	38.425	5.10	0.002
ERROR	206	1551.106	7.529		
TOTAL	209	1666.380			

Table 40

Tukey's Studentized Range (HSD) Test for Teachers' Perceived Use of Program Planning Strategies as a Function of Function of Type of School Setting

Type Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit	
1 - 2	-1.239	0.565	2.368	
1 - 3	-1.970	0.403	2.775	
1 - 4	0.300	1.852	3.404	***
2 - 1	-2.368	-0.565	1.239	
2 - 3	-2.362	-0.162	2.038	
2 - 4	-0.014	1.287	2.560	***
3 - 1	-2.775	-0.403	1.970	
3 - 2	-2.038	0.162	2.362	
3 - 4	-0.550	1.449	3.449	

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

Table 41 shows descriptive statistics for teachers' views on CBI as a function of the type of school setting. Significant differences were noted among school settings (Table 42). Teachers in segregated schools were more positive about CBI than those in integrated and regular schools (Table 43).

Table 41

Descriptive Statistics for Teachers' Views on CBI as a Function of the Type of School Setting

	Descriptive Statistics	
Type of School	**Mean**	**STD**
Segregated School	22.21	3.58
Integrated School	19.03	4.07
Special Class	21.45	2.25
Regular School	19.21	3.47

Table 42

Teachers Views on CBI as a Function of the Type of School Setting

Source	**DF**	**SS**	**MS**	**F-value**	**PROB.>F**
TYPE	3	231.434	77.14	6.08	0.0006
ERROR	190	2409.45	12.68		
TOTAL	193	2640.886			

Table 43

Tukey's Studentized Range (HSD) Test for Teachers' Views About CBI as a Function of Type of School Setting

Type Comparison	Lower Confidence Limit	Difference Between Means	Upper Confidence Limit
1 - 3	-2.607	0.754	4.115
1 - 4	0.936	3.000	5.064 ***
1 - 2	0.788	3.183	5.577 ***
3 - 1	-4.115	-0.754	2.607
3 - 4	-0.662	2.246	5.154
3 - 2	-0.722	2.429	5.580
4 - 1	-5.064	-3.000	-0.936 ***
4 - 3	-5.154	-2.246	0.662
4 - 2	-1.519	0.183	1.884

1. No degree in P.E.
2. Some courses in P.E.
3. Diploma in P.E.
4. Bachelors degree in P.E.
5. Masters degree in P.E.

These results support previous observations (Sachs, 1988; Safran & Safran, 1987; Shinn, Tindal & Spira, 1987) that instructional strategies used by teachers are dependent on the school setting. For example teachers in a variety of school settings may differ in the way they carry out their instructional duties due to the opportunities available to them in the different school settings. It is possible that teachers in integrated and segregated schools have to constantly think of the wide variabilities in student performance when planning for class activities. Teachers in regular schools may not be pressured to individualize their instruction since it is

assumed that students in regular schools are capable of acquiring motor skills comparable to a norm group.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to investigate the perceived use of competency-based instruction by physical education teachers. It was also the intent of this study to create a research tool that included specific CBI strategies in order to find out the extent to which teachers perceive themselves to use these strategies. This chapter outlines the summary and conclusions of the research and is divided into five sections: (1) Summary of the Methodology (2) Summary of the findings (3) Conclusions (4) Implications (5) Recommendations for further study.

Summary of the Methodology

Two hundred and thirteen teachers currently teaching physical education in elementary, junior and senior high schools answered a questionnare to determine the extent to which they perceived to use Competency-Based Instructional strategies. The perceived CBI questionnaire was developed as outlined by Safrit (1981) through a table of item specification. Although nine content areas of CBI strategies were identified, only five content areas were used in this questionnaire. For each of the content areas, competency statements were developed. Of the 1,000

questionnaires sent to schools across Canada, 235 were returned. Twenty-two of those returned were not used since they were not fully completed or the schools had been closed down. Teachers were required to respond to the statements on a five point Likert type scale to show the extent they perceived to use CBI. Three main methods were used to analyze the responses to various parts of the CBI questionnaire. These included, frequency distribution, Pearson correlation analysis, and the Analysis of Variance procedure (One-Way ANOVA).

Summary of the Findings

The results the present study support three of the six hypotheses stated. A significant relationship was noted between teachers' perceived use of CBI and the number of years the teacher had been exposed to students with disabilities. Significant differences were observed among teachers perceived use of CBI as a function of the school setting. Specifically teachers in regular schools differed from those in integrated, and segregated schools on how they perceived themselves to use CBI strategies. Also a significant difference was noted among the perceived use of CBI by teachers and the educational level attained. This difference was however only between teachers with no training in physical education and those who had attained a bachelor's degree.

Most of the teachers irrespective of the educational level attained or type of school setting, indicated that they rarely used volunteers or parents in their instruction. It was also evident that teachers perceived that they used program planning and behavior management strategies more frequently than the other CBI strategies. Although many teachers reported to use assessment strategies for screening and grading purposes, they rarely used the results from assessment to design instructional objectives to meet the needs of individual students.

Conclusions

Based on the findings of this research, the following conclusions were made:

(1) There is no significant relationship between physical educators' perceived use of competency-based instruction and teaching experience.

(2) There is a significant relationship between physical educators' perceived use of competency-based instruction and their involvement with disabled students.

(3) There is no significant relationship between physical educators' perceived use of competency-based instruction and the number of courses they have taken in special education.

(4) There is no significant relationship between physical educators' perceived use of competency-based instruction and the number of courses they have taken in adapted physical education.

(5) There is a significant difference among physical educators' perceived use of competency-based instruction as a function of the school setting.

(6) There is a significant difference among physical educators' perceived use of competency-based instruction as a function of the educational level attained.

Implications

A number of factors have been identified in the present study to determine the extent to which teachers perceive to use CBI strategies. The following discussion will focus on specific information from the CBI questionnaire and the implications for physical educators and teacher training institutions.

The results gathered from the questionnaire provide important information that could help professionals develop teaching strategies. First, it was evident that the extent to which physical education teachers use CBI strategies did not always depend on the number of years they had taught but more so on the exposure they had had with students with disabilities. These results may imply that there is a gap between training offered during pre- or in-service training and what actually goes on in schools once these teachers complete their training. It may be

necessary for professionals in teacher training institutions to re-evaluate the courses offered to teacher trainees so that skills learned during training are transferable to school settings.

As observed by McNutt and Mandelbaum (1988) there is a need for educators to have a well formed understanding of the educational philosophy behind the instructional strategies emphasised during training. This is because students come to the training institutions with an already formed philosophy of what good teaching entails. By emphasizing the theoretical basis for the strategies taught, teacher trainees will be able to understand why and when to use various strategies in their classroom teaching in order to achieve desired goals.

Since competency-based instruction has been supported by both researchers and educators in adapted physical education and special educators as an effective instructional methodology, it was expected in this study that teachers who had received more courses in either adapted physical education or special education would perceive to use more of the CBI strategies. But as was evident from the results of this study no significant correlation was observed between the number of courses taken in both adapted physical education and special education and the perceived use of CBI, perceived adequacy of training and their views on CBI. These results may imply that the extent to which the training offered to physical education teachers does not provide adequate practical experience for these teachers to utilize these skills. Tyerman (1979) has observed that the training offered to teachers does not help student teachers to deal adequately with the classroom

situation as it is. For example, teachers who do not use parents in their class management, may be uncomfortable dealing with other people in planning for class lessons. If these teachers were provided with adequate experiences with parents and other school personnel during training, they may be able to discover the benefits that accrue from a multidisciplinary consultation. Thus, when they start teaching, they will not perceive parents as infringing on their authority in the class but as partners.

Finally, professional preparation should focus more on the construction and implementation of formal accountability systems to track student progress. Such a system would ensure that teaching is geared toward student acquisition of motor skills that are targeted in the lesson plan. It is therefore necessary that training be directed toward those strategies that can be attained in the various school setups that teachers may find themselves teaching.

Recommendations for Further Study

Based upon the observations made in this study, several recommendations have been made for further study.

(1) The present study was a preliminary survey of the extent to which physical education teachers perceive to use CBI. The information gathered from this study can only be used cautiously. The questionnaire used in this study did

not provide respondents an opportunity to provide information outside the questionnaire parameters. A replication of this study through class observation of teachers' instructional strategies may shed more light on the extent to which teachers actually use CBI strategies.

(2) Since the results of this study concur to some extent with previous studies (Lawson, 1983; Placek, 1983; Templin, 1979) that physical education teachers do not always put into use the skills they learned during training, it is suggested that more research should be conducted to identify the specific factors which cause the wash out effect. Once these factors are identified, teacher training can be geared towards providing trainees with skills that are not only ideal but also correspond to what these trainees are likely to meet in the schools.

(3) The consistency with which teachers reported not to use volunteers and/or parents indicate two possible conclusions. First, teachers may not use CBI due to school systems that do not allow them to use volunteers or parents. Second, physical education teachers may not be prepared in skills that would enable them to use volunteers or parents. Further research should be conducted to ascertain the full meaning of the absence of multidisciplinary consulting in the instructional plans of physical education teachers. There is a need to review whether multidisciplinary consulting strategies have received proper notice and publicity among those who are responsible for training physical educators.

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APPENDIX A

Table of Item Specification

APPENDIX A
SPECIFICATION OF ITEMS IN THE UNIVERSE OF CBI

Author	Assessment	Curriculum Planning	Individual Instruction	Behaviour Management	Inter-person Communication	Multi-Disciplinary Consulting	Program Modification	Placement	Remedial Teaching
Auxter & Pyfer (1989)	X	X	X	X	X				
Arnhein & Sinclair (1985)	X	X	X	X	X				
Beauregard (1988)	X	X	X						
Currinan et al.(1986)	X				X	X			X
Cratty (1989)	X			X	X			X	
Dunn et al. (1986)	X	X	X						
Fait & Dunn (1984)	X	X	X	X			X		
French & Jansma (1982)	X	X	X			X		X	
Goodwin (1988)		X	X	X			X		
Hoover (1987)									
Hudson et al. (1987)	X	X	X						
Jansma (1988)			X				X		
Johnson (1988)	X	X	X						
Larrivee (1985)	X	X	X						
McDaniel & McCarthy (1989)	X	X	X	X	X				
McNutt & Mandelbaum (1988)	X		X	X		X			
Newcomer (1988)	X		X	X		X			
Sachs (1988)	X	X	X	X			X		
Seaman & Depauw (1989)	X	X	X	X			X		
Sherrill (1988)	X	X	X	X	X	X			
Stainback & Stainback (1988)	X	X	X	X					
Whitman (1985)	X	X	X		X			X	
Whitten & Westling (1985)	X	X	X	X					
Wilcox et al. (1987)	X	X	X						

APPENDIX B

Perceived Competency-Based Instruction Questionnaire

(English Version)

TEACHER'S PERCEIVED USE OF COMPETENCY-BASED INSTRUCTION

ASSESSMENT
Please circle the selection which you feel best represents the extent to which you use the following assessment strategies in your physical education class instruction.

1 Never 2 Rarely 3 Sometimes 4 Frequently 5 Always

1)	Gathering information to determine the present level of functioning of each student	1 2 3 4 5
2)	Using standardized measurement tests (e.g. Canada Fitness Test) to assess the strength and weakness of each student	1 2 3 4 5
3)	Continuously monitoring the progress of students and recording their performance	1 2 3 4 5
4)	Using assessment data to write individualized instructional objectives	1 2 3 4 5
5)	Using assessment data to place each student at an appropriate instructional level	1 2 3 4 5
6)	When students do not achieve established objectives, assessment data is used to revise the instructional plan accordingly	1 2 3 4 5

1 Poorly prepared 2 Fairly prepared 3 Adequately prepared 4 Well prepared 5 Very well prepared

7)	Now that you have answered the above six questions, please indicate the extent to which you feel your training (including pre-service, in-service, workshops) prepared you to use competency-based assessment strategies.	1 2 3 4 5

PROGRAM PLANNING
Please circle the selection which you feel best represents the extent to which you plan your physical education programs using the following strategies.

1 Never 2 Rarely 3 Sometimes 4 Frequently 5 Always

8)	Selecting activities or skills to be learned that will be functionally used by the learner	1 2 3 4 5
9)	Breaking down tasks into small sequential steps to help students learn the prescribed skills	1 2 3 4 5
10)	Selecting curriculum materials based on each learner's strengths and weaknesses	1 2 3 4 5
11)	Selecting instructional strategies based on each learner's strengths and weaknesses	1 2 3 4 5
12)	Improvizing activities and games to encourage students with varying abilities to participate	1 2 3 4 5
13)	Varying the degree of competition in games to recognize the differential interests and abilities of participants	1 2 3 4 5
14)	Providing more opportunities for learners who have not attained the desired skill levels to practice these skills in other settings	1 2 3 4 5

1 Poorly prepared 2 Fairly prepared 3 Adequately prepared 4 Well prepared 5 Very well prepared

15) Now that you have answered the above seven questions, please indicate the extent to which you feel your training (including pre-service, in-service,

INDIVIDUALIZED INSTRUCTION

Please circle the selection which you feel best represents the extent to which you use the following instructional strategies in your physical education classes.

1 Never 2 Rarely 3 Sometimes 4 Frequently 5 Always

16) Providing ample instruction in addition to appropriate practice for each student to develop his/her skills 1 2 3 4 5

17) Using volunteers or parents to enhance the learning of students in the class 1 2 3 4 5

18) Conducting class activities to encourage cooperative interaction among students 1 2 3 4 5

19) Providing frequent positive feedback to reinforce student learning 1 2 3 4 5

20) Using appropriate prompts (including physical, visual, and/or verbal) to facilitate progressive skill learning 1 2 3 4 5

21) Practicing skills learned in a "one to one" or small group setting in novel situations 1 2 3 4 5

22) Contracting with individual students to accomplish prescribed activities 1 2 3 4 5

1 Poorly prepared 2 Fairly prepared 3 Adequately prepared 4 Well prepared 5 Very well prepared

23) Now that you have answered the above seven questions, please indicate the extent to which you feel your training (pre-service, in-service, workshops) prepared you to use individualized instructional strategies in your physical education class. 1 2 3 4 5

BEHAVIOUR MANAGEMENT

Please circle the selection which you feel best represents the extent to which you use the following behaviour management strategies in your physical education classes.

1 Never 2 Rarely 3 Sometimes 4 Frequently 5 Always

24) Organizing class activities to ensure students move from one activity to the other without delays 1 2 3 4 5

25) Reinforcing personal behaviours that approximate the desired response until criterion level of performance is achieved 1 2 3 4 5

26) Gradually fading reinforcers as the performance of each student approximates the desired level 1 2 3 4 5

27) Teaching and reinforcing personal behaviours that reduce inappropriate behaviours 1 2 3 4 5

1 Poorly prepared 2 Fairly prepared 3 Adequately prepared 4 Well prepared 5 Very well prepared

28) Now that you have answered the above four questions, please indicate the extent to which you feel your training (including pre-service, in-service, workshops) prepared you to use behaviour management skills in your class 1 2 3 4 5

CONSULTING

Please circle the selection which you feel best represents the extent to which you use the following consulting strategies in your physical education classes

1 Never 2 Rarely 3 Sometimes 4 Frequently 5 Always

29) Involving parents in planning for their children's individualized educational program 1 2 3 4 5

30) Planning cooperatively with other resource personnel to meet the needs of each student 1 2 3 4 5

31) Using older and/or more skilled children to teach younger and/or less skilled children 1 2 3 4 5

32) Interacting with other professionals to better meet the needs of each child 1 2 3 4 5

1 Poorly prepared 2 Fairly prepared 3 Adequately prepared 4 Well prepared 5 Very well prepared

33) Now that you have answered the above four questions, please indicate the extent to which you feel your training (including pre-service, in-service, workshops) prepared you to effectively consult with parents and other professionals in the school 1 2 3 4 5

TEACHER'S VIEWS ABOUT COMPETENCY BASED INSTRUCTION

Please indicate the degree to which you agree or disagree with each of the following statements below by circling the appropriate number.

1 strongly disagree 2 disagree 3 moderately agree 4 agree 5 strongly agree

34) I have adequate time to use competency-based instruction strategies in my class 1 2 3 4 5

35) I have the resources necessary to enable me to use competency-based strategies 1 2 3 4 5

36) The number of students in my class makes it possible for me to use competency-based instruction 1 2 3 4 5

37) I have support personnel to assist me in class management 1 2 3 4 5

38) Competency-based instruction is not appropriate for my class since skill development is not the major focus of my program 1 2 3 4 5

39) I have found competency-based instruction to be valuable when used selectively 1 2 3 4 5

40) The wide variability in student performance makes it impossible for me to use competency-based instructional strategies 1 2 3 4 5

BACKGROUND QUESTIONS ABOUT YOURSELF

Please answer the following questions to the best of your ability.

41) What is your gender

Male.....1
Female.....2

42) How many years have you been teaching physical education

Years _____

43) How many years have you taught physical education to students with disabilities

Years _____

44) What is the highest degree you have attained in Physical Education

No Degree In Physical Education.....1
Some Courses in Physical Education...2
Diploma.....3
Bachelors...4
Masters.....5
Doctorate...6

How many courses have you taken:

45) in adapted physical education

Number of courses_____

46) in special education
(a course is approximately 40 hours of instruction over a semester)

Number of courses_____

47) How would you describe the type of school in which you teach?

1. Majority of my teaching time is spent in a segregated school (school primarily designed for students with disabilities) 1

2. Majority of my teaching time is spent in an integrated school (school in which students with disabilities attend classes with non-disabled students for part or majority of the school day) 2

3. Majority of my teaching time is spent in a regular school but I have a major responsibility in teaching special classes (a special class refers to the classed designed for disabled students who remain intact for the majority of the school day in a regular school) 3

4. Majority of my teaching time is spent in a regular school (school primarily designed for non-disabled students) 4

48) At what level do you currently teach physical education
(Check as many as applicable to you)

Elementary.....1
Junior High....2
Senior High....3

THANK YOU FOR YOUR COOPERATION

APPENDIX C

Perceived Competency-Based Instruction Questionnaire

(French Version)

I) EVALUATION

S'il vous plait, veuillez encercler la sélection qui selon vous représente le mieux dans quelle mesure vous utilisez les stratégies d'évaluation suivantes, lors de vos classes d'éducation physiques.

1. Jamais 2. Rarement 3. Quelques fois 4. Souvent 5. Toujours

1) Recueillir de l'information de façon à déternuner le niveau de fonctionnement actuel de chaque étudiant 1 2 3 4 5

2) Utilisation de tests de mesures normalisées (e.g. Physitest normalisé Canadien) de façon à évaluer les forces et faiblesses de chaque étudiant. 1 2 3 4 5

3) Contrôler de façon continue le progrès des étudiants et enregistrer leurs performances. 1 2 3 4 5

4) Utilisation des données d'évaluation (ou résultats d'évaluation) de façon à créer des objectifs instructionnels personnalisés. 1 2 3 4 5

5) Utilisation de données d'évaluation de façon à placer chaque étudiant à un niveau d'instruction approprié. 1 2 3 4 5

6) Lorsqu un étudiant n'atteint pas le ou les objectifs pré-établis, les données d'évaluation sont utilisées afin de réajuster le plan instructionnel 1 2 3 4 5

1 Mal préparé 2 Assez bien préparé 3 Megennement bien préparé 4. Bien préparé 5. Tres bien préparé

7) Maintenant que vous avez répardu aux six questions précedentes, s'il vous plait veuillez indiquer dans quelle mesure vous estimez avoir veçu une formation adéquate (inceuant avant d'avoir enseigné, durant l'enseignement, ateliers) de façon à vous préparer à utiliser les strategies d'évaluation "competency based" dans vos classes d'éducation physique. 1 2 3 4 5

II) PLANNIFICATION DU PROGRAMME

S'il vous plait veuillez encercler la sélection qui selon vous représente le mieux dans quelle mesure vous planifiez vos programmes d'éducation physique en utilisant les stratégies suivantes.

1. Jamais 2. Rarement 3. Quelques Fois 4. Souvent 5. Toujours

8) Choisir des activités qui pourront servir à l'étudiant dans sa vie de tous les jours. 1 2 3 4 5

9) Faciliter l'apprentissage d'une activité en la décompensant en étapes successives. 1 2 3 4 5

10) Sélectionner un programme scolaire basé sur les forces et faiblesses de chaque étudiant. 1 2 3 4 5

11) Sélectionner des stratégues d'instruction basées sur les forces et faiblesses de chaque étudiant 1 2 3 4 5

12) Improviser des activités et des jeux de façon à encourager la participation des étudiants indépendemment de leur niveeau d'habileté, 1 2 3 4 5

13) Varier le niveau de compétition de façon à déceler les différents degrés d'interets et habilétés des étudiants. 1 2 3 4 5

14) Donner la possibilité aux étudiant n'ayant pas obtence le niveau d'habileté désiré, de pratiques les activités en question en différentes occasions. 1 2 3 4 5

1. Mal Préparé 2. Assez bien préparé 3. Magennement bien préparé 4. Bien préparé 5. Trés bien préparé

15) Maintenant que vous avez répardu aux sept questions précédentes, s'il vous plait indiquez dans quelle mesure vous estimez avoir reçu une formation adéquate (incluant avant d'avoir enseigné - durant l'enseignement - ateliers), de façon à vous préparer à utiliser les stratéties de plannification des programmes dans vos classes d'éducation physique. 1 2 3 4 5

III INSTRUCTIONS PERSONNALISÉES

S'il vous plait, veuillez encercler la sélection qui selon vous représente le mieux dans quelle mesure vous utilisez les stratégies d'instruction suivantes lors de vos classes d'éducation physique.

1. Jamais 2. Rarement 3. Quelques Fois 4. Souvent 5. Toujours

16) Fournir amplement d'instructions ainsi que de temps de pratique de façon à ce que chaque étudiant puisse développer ou améliorer ses habiletés. 1 2 3 4 5

17) Avoir recours à des pénévoles ou parents durant les heures de classe de façon a améliorer l'apprentissage des étudiants. 1 2 3 4 5

18) Diriger les activités de façon à développer le sens de la coopération entre les étudiants. 1 2 3 4 5

19) Encourager et complimenter les progrés des étudiants de façon à encourager l'apprentissage. 1 2 3 4 5

20) Utilisation d'accessoires appropriés (visuels -physiques-verbaux) de façon à facilite l'apprentissage 1 2 3 4 5

21) Pratiquer les activités sur une base de "un pour un" ou en petits groupes, lorsque'il s'agit de situations nouvelles. 1 2 3 4 5

22) Utiliser un contrat d'apprentissage pour suivre le programme des activites planifiées. 1 2 3 4 5

1. Mal préparé 2. Assez bien préparé 3. Magennement bien préparé 4. Bien préparé 5. Trés bien préparé

23) Maintenant que vous avez répardu aux sept questions précédentes, s'il vous plait veuillez indiquer dans quelle mesure vous estimex avoir reçu une formation adéquate incluant avant d'avoir enseigné - durant l'enseignement - ateliers) de façon à vous préparer à utiliser les stratégies d'instructions personnalisées dans vos classes d'éducation physique. 1 2 3 4 5

IV CONTROLE DU COMPORTEMENT

S'il vous plait veuillez encercler la selection qui selon vous représente le mieux dans quelle mesure vous utilisez les stratégies de contrôle du comportement suivantes dans vos classes d'éducation physique

1. Jamais 2. Rarement 3. Quelques Fois 4. Souvent 5. Toujours

24) Organiser la session d'activité de façon à ce quill y ait un mouvement rapide et continue entre chacune des activitiés 1 2 3 4 5

25) Renforcer les compartements se rapproachant de la réponse désiré, jusqui à ce que le niveau de performance pré-établie soit atleint 1 2 3 4 5

26) Lorsque la performance de chaque étudiant atleint le niveau désiré, retirer graduellement les renforcements. 1 2 3 4 5

27) Enseigner et renforcer les comportements appropriés de façon à diminver les compartements non-désirés 1 2 3 4 5

1. Mal préparé 2. Assez bien préparé 3. Magennement bien préparé 5. Tres bien préparé

28) Maintanant que vous avez répardu aux quatre questions précedentes, veiullez s'il vous plait indiquer dans quelle mesure vous estimez avoir reçu une formation adéquate (incluant avant d'avoir ensigné durante l'enseignement- ateliers) de façon à vous préparer à utiliser les stratégies de contrôle du comportement dans vos classes d'éducation physique 1 2 3 4 5

V. CONSULTATION

S'il plait, veuillez encercler la sélection qui selan vous, représente le mieux dans quelle mesure vous utilisez les stratégies de consultation suivants dans vos classes d'éducation physique

1. Jamais 2. Rarement 3. Quelques Fois 4. Souvent 5. Toujours

29) Impliquer les parents dans la planification du programme éducationnel de leur enfant. 1 2 3 4 5

30) Planifier en coopération avec des personnes ressources de façan à satisfaire les besoins de chaque édutiant 1 2 3 4 5

31) Avoir recours à des édutiants plus agés et lou plus expérimentés pour aider les plus jeunes et/ou mains expérimentés 1 2 3 4 5

32) Avoir recours à des d'autre professionnels de façon à mieux satisfaire les besoins de chaque enfant 1 2 3 4 5

1. Mal Préparé 2. Assez Bien Préparé 3. Megennement Bien Préparé 4. Bien Préparé 5. Trés Bien Préparé

33) Maintenant que vous avez répardu aux quatres questians précédents, veuillez s'il vous plait indiquer dans quelle mesure vaus estimez avoir veçu une formation adéquate (incluant avant d'avoir enseigné - durant l'enseignement - ateliers) Vous préparent à consulter efficacement avec les parents et autres professionnels de l'école 1 2 3 4 5

VI OPINION DES ENSEIGNANTS EN CE QUI CONCERNE LES "INSTRUCTIONS BASÉES SUR LA COMPÉTENCE"

S'il vous plait, veuillez indiquer dans quelle mesure vous êtes en accord ou en désaccord avec les énoncés suivants, en encerclant le chiffre approprié

1.Fortement En Desaccord 2. Pas D'accord 3. Neutre 4. En Accord 5. Fortement En Accord

34) Dans mes classes, j'ai suffisamment de temps pour utiliser des instructions basées sur la compétence 1 2 3 4 5

35) J'ai les ressources nécessaires me permettant d'utiliser des instructions basées sur la compétence. 1 2 3 4 5

36) Le nombre d'etudiants dans ma classe me permet d'utiliser des "instructions basées sur la compètence. 1 2 3 4 5

37) J'ai accès à du personnel paivant m'aider à diriger ma classe. 1 2 3 4 5

38) Il me serait futile d'utiliser les "instructions basées sur la compétence" dans ma classe puisque le développement des habilités n'est pas un objectif majeur de mon programme. 1 2 3 4 5

39) Je trouve que les instructions basées sur la compétence sont utiles lorsqu'elles sont utilisées sélectivement. 1 2 3 4 5

40) La grande variation en ce qui concerne la performance des étudiants rend l'utilisation des "instructions basées sur la

compétence" impossible. 1 2 3 4 5

S'il vous plait veuillez répondre aux questions suivantes au meilleur de vos connaissances.

41) Votre sexe

masculin 1
féminin 2

42) Nombre d'années d'enseignement en tant qu'éducateur (trice) physique _____ans

43) Nombre d'années d'enseignement en tant qu'éducateur (trice) physique auptés des étudiants handcapés _____ans

44) Quel est le plus haut niveau de scolarité que vous avez atteint en éducation physique.

Aucun diplôme en éducation physique--1
Quelques cours d'éducation physique--2
Diplôme---3
Baccalauréat---4
Maitrise---5
Doctorat---6

Combien de cours avez-vous suivit: (un cours correspond à environ 40 heures pa semestre).

45) en éducation physique adaptée

nombre de cours ____

46) en éducation physique spécialisée

nombre de cours ____

47) Comment décririez-vous le type d'école ou vous enseigne présentement?

1. La majorité de mon temps d'enseignement est voué à une école specialisée (école principalement destinée aux étudiants handicapés). ------1

2. La majorité de mon temps d'enseignement est voué à une école ou il existe de l'integration (école ou les étudiants handicapés et non-handicapés partagent en partie ou en majorité leurs journées d' école). ---2

3. La majorité de mon temps d'enseignement est voué à une école véguliére, toutefois j'ai une grande part de responsabilité en ce qui concerne l'enseignement de classes spune classe spéciale est une classe destinée aux entants handicapés et demeure intacte pour la majorité du temps d'enseignement - et ce donne dans une école réguliére).

----3

4. La majorité de mon temps d'enseignement est voué à une école réguliére. (Ecole principalement destinée pour les étudiants non-handicapés) ---4

48) A quel niveau enseignex-vous présentement l'éducation physique
(cochez autant de choix qu' applicable pour vous)

élementaire...1
Secondaire 2
(niveau 1 et 2)
Secondaire ...3
(niveau 3,4 et 5)

APPENDIX D

Request Letter to School Principals

McGill

Department of Physical Education
McGill University

475 Pine Avenue West
Montreal, PQ, Canada H2W 1S4

Dear Principal:

I (Peter Bukhala) am a graduate student from Kenya (Africa) studying at McGill University in the Department of Physical Education. I am doing a cross-Canada Survey on the Perceived Use of Teaching Competencies by Physical Educators in partial fulfillment of my Master's of Arts degree in Physical Education. The purpose of the enclosed questionnaire is to determine the extent to which physical education teachers perceive themselves to use various teaching competencies and the factors that influence the use of these teaching competencies.

I would be grateful if you would kindly pass the questionnaire to the physical education teacher(s) or the classroom teacher(s) who are currently teaching physical education in your school. Enclosed please find two copies of the questionnaire and a self-addressed stamped envelope for return. Please feel free to make additional copies if there is sufficient interest by Physical Education teachers in your school to respond to the questionnaire. I am confident that the information gathered from this study will be useful to those involved in teacher training programs in both Canada and my country. I appreciate your assistance. Thank you.

Sincerely yours,

Bukhala

Peter Bukhala

Greg Reid

Dr. Greg Reid
Thesis Supervisor

APPENDIX E

Request Letter to Physical Education Teachers

McGill

Department of Physical Education
McGill University

475 Pine Avenue West
Montreal, PQ, Canada H2W 1S4

Dear Physical Educator:

I (Peter Bukhala) am a graduate student from Kenya (Africa) studying at McGill University in the Department of Physical Education. I am doing a cross-Canada survey on the Perceived Use of Teaching Competencies by Physical Educators in partial fulfillment of my Master's of Arts degree in Physical Education. The purpose of the attached questionnaire is to determine the extent to which Physical Educators perceive themselves to use various teaching competencies and the factors that influence the use of these teaching competencies.

I would be grateful if you would kindly complete the attached questionnaire and return to me as soon as you can. A self-addressed stamped envelope for return is attached. I am confident that the information gathered from this study will be useful to those involved in teacher training programs in both Canada and my country. Let me take this opportunity to assure you that the information gathered from your response will be held in confidence and the results of the study will be communicated to those who respond to the questionnaire and include their return address. I appreciate your assistance. Thank you.

Sincerely yours,

P Bukhala.

Peter Bukhala
c/o Department of Physical Education
McGill University
475 Pine Avenue W.
Montreal, Quebec
H2W 1S4

Greg Reid

Dr. Greg Reid
Thesis Supervisor