

LEARNER CHARACTERISTICS: A FRAMEWORK FOR EVALUATION
THAT IS COHERENT, SUSTAINABLE, AND VALID

by

Susan Anne Smith
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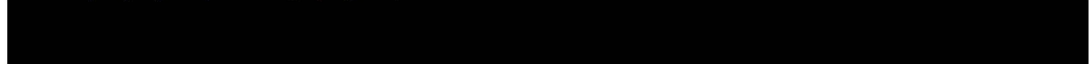
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Dr. Terry D. Johnson, Supervisor (Department of Communications and Social Foundations)



Dr. Robert J. Anthony, Departmental Member (Department of Communications and Social Foundations)



Dr. John O. Anderson, Outside Member (Department of Psychological Foundations)



Dr. Theodore J. Riecken, External Examiner (Department of Social and Natural Science)

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University of Victoria

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ABSTRACT


This study explores issues related to student assessment and evaluation; in doing so three criteria for a rational process of evaluation are identified and described: coherency, sustainability, and validity. This study also identifies and describes a frame of reference for evaluation called the Learner Characteristics Framework. The purpose of this study was to determine to what extent the Learner Characteristics Framework could successfully uphold the three criteria if applied within an elementary classroom. The Learner Characteristics Framework consists of the following eight characteristics which were derived upon the basis of what teachers and the broader educational community value as attributes of a successful learner:


Knowledge	Industrious	Risk-taking
Self-esteem	Generative	Strategic
Thoughtful	Empathy	


During one reporting period, the Learner Characteristics Framework was implemented in two elementary classrooms which involved two teachers who team taught a grade 3/4 class, and one teacher who taught a grade 4/5 class. At the end of this reporting period, three sources of data were collected: anecdotal student reports, parent surveys, and teacher questionnaires. The data were analyzed in order to determine the extent to which coherency, sustainability, and validity were satisfied.

The findings revealed that the Learner Characteristics Framework was able to satisfy each of the criteria. Implications relating to the *content of student reports* and the *process of writing student reports* emerged in the analysis of validity and sustainability. In addition, the teachers reported that the Learner Characteristics Framework had a positive effect upon instruction and student learning.

Examiners:


Dr. Terry D. Johnson, Supervisor (Department of Communications and Social Foundations)


Dr. Robert J. Anthony, Departmental Member (Department of Communications and Social Foundations)


Dr. John O. Anderson, Outside Member (Department of Psychological Foundations)



Dr. Theodore J. Riecken, External Examiner (Department of Social and Natural Science)

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To all who have a vision and desire to create
a positive change

Introduction

The Problem

The renaissance of language instruction that has evolved over the past decade has done so without a coinciding change in evaluation (Chapman, 1989). Only more recently has it been recognized that methods of evaluation steeped in traditions of the past cannot rationally be applied to instructional approaches to which they are diametrically opposed. Teachers are increasingly aware of, and frustrated by, the lack of fit between traditional evaluation practices and their instructional methods founded on more current theories of learning. For instance, Cambourne & Turbill (1990) observe that, "teachers who decide to implement a whole language philosophy share a common experience: the methods of assessment that they have traditionally been expected to use in their language programs no longer seem appropriate. Teachers who try to apply traditional assessment procedures to whole language contexts typically experience an uneasiness about what they are trying to do" (p. 337).

In recognition of this dilemma and to resurrect a compatibility between methods of curriculum and those of evaluation - there has been a call for curricular reform which is accompanied by consistent reforms to the evaluation process (NEEYC, 1991, p.72). Many educators have discarded traditional evaluation procedures -- briefly, those which test and rank children by measuring their mastery of decontextualized sub-skills and which use numerical summation to express learning progress. Instead, educators are opting for methods of evaluation that align themselves with a whole language philosophy (Goodman, Goodman, Hood, 1990). These methods are characterized by: integrating curriculum and assessment, using the everyday learning context as a source of valid data, observing the child in a wide variety of circumstances, using a wide array of assessment tools,

accommodating the diversity of learning rates and styles, and avoiding the comparison and ranking of children (Goodman, 1990; Anthony, Johnson, Mickelson, Preece, 1991; NAEYC, 1991).

Although the latest evaluation reforms are better than the traditional procedures they have replaced - they remain deficient in ways that threaten to render the evaluation process irrational and to sabotage the best educational intentions of teachers. These changes call for a more thorough reform. The evaluation process needs to be reconceptualized and reconstructed so that it constitutes a rational process that will further the educational integrity of all members it serves.

The Purpose of the Study

This study seeks to offer a process of evaluation that is rational. In order to fulfill this purpose it is necessary to establish what constitutes 'rational' in terms of evaluation. Chapter I, the Theoretical Framework, identifies three criteria of a rational process of evaluation: one that is coherent, sustainable, and valid. Maintaining a balanced, interdependent relationship between the criterion is a fundamental pre-requisite of a rational process of evaluation. Each criterion as well as its relationship to the other criteria will be described in order to apply this 'balanced interdependent relationship between the criterion' as a model, or template, upon which to analyze past and current approaches to evaluation. This analysis is the concern of Chapter II, the Literature Review; it summarizes the differences between a traditional (as defined here) approach to evaluation and that of a whole language approach. This analysis is then applied further to the methods of evaluation that have been forwarded by the British Columbia Primary Program. The purpose of this analysis is to gain an understanding of the strengths, deficiencies, and

implications that these different approaches to evaluation indicate. Chapter III of this study forwards a frame of reference for evaluation that evolves as a result of this analysis. This frame of reference is called 'Learner Characteristics'; it attempts to satisfy the criteria of coherence, sustainability, and validity. The specific purpose of this study is to address the following question:

To what extent does the Learner Characteristics Framework offer a process of evaluation that is coherent, sustainable, and valid ?

Chapter IV, describes the methods used to effect this study as well as those methods used to implement the Learner Characteristics Framework in two elementary classrooms. The data that was collected is also profiled and discussed in Chapter III. Chapter V provides an analysis and discussion of the data; here the criteria of coherence, sustainable, and validity are applied to the Learner Characteristics Framework to determine if indeed it is a rational and effective means of evaluating and reporting student progress. The final chapter, Chapter VI, offers a brief summary of the salient features of this study and discusses the impact of using the Learner Characteristics Framework.

Chapter 1: The Theoretical Framework

Defining the 'Process of Evaluation'

This study views the process of evaluation involving assessment, evaluation, and reporting. Assessment is the "systematic process of gathering evidence of what the child can do" (Year 2000: A Framework for Learning, BC Ministry of Education, 1989). It involves formal and informal techniques of collecting data regarding a child's learning progress. Data is not synonymous with a number or grade, it may include evidence of the child's learning progress in other forms such as: writing samples, recorded observations, self-evaluations (Johnson, 1991). Evaluation is the interpretation of evidence; it has been described as the ongoing process of making judgements about the most appropriate educational program that will foster the learning of the child. The evaluation process also involves the ongoing communication of the child's learning progress, this is commonly known as 'reporting'. The communication of the child's learning, is not restricted to formal reports; reporting also incorporates: informal dialogues, telephone calls, notes to parents, samples of children's work, sharing children's self-evaluations, home visits, parent visits to the classroom, and conferences (British Columbia Primary Program Foundation Document, Ministry of Education, 1990, p.117). The purpose of the evaluation process is to inform instruction and communicate progress; however, the ultimate goal of evaluation is to promote the child's learning autonomy and therefore the child should be involved in the process of evaluation as much as possible.

Coherence

Coherency, as it applies to the evaluation process, is the clear and logical connection between 'what is valued' and 'what is evaluated'. This notion of coherency is aptly expressed by Wiggins (1991): "assess what you value, and value what you assess" (p.10). 'What is valued' is typically reflected by educational statements of mission and goals, 'what is evaluated' should naturally evolve out of these statements. The International Reading Association has recently proposed a resolution on literacy assessment advocating the necessity of basing evaluation practices on educational goals: "the International Reading Association supports literacy assessment that recognizes and addresses the complex nature of literacy, (and) that is built on goals and standards having broad societal endorsement..." (1991, p.1). Another endorsement of this premise is offered by Munroe (1991) who emphasizes that "any program of educational assessment should have as its base a well-defined sense of what the end product is and should, in its application, encompass those essential goals. As a fundamental component of its assessment program, a school district should engage its faculty and community in a process leading to a definition of what, for that community, constitutes an educated person" (p.99). The citizens and educational community of British Columbia have engaged in this fundamental process and have evolved 'The Educated Citizen' (see Figure 1), an informed statement of mission expressing what is valued by society. The Educated Citizen indicates that British Columbians value individuals who are thoughtful, creative, and co-operative (for a complete list of traits see Figure 1). If the endeavor of the education system is to cultivate these characteristics then it seems prudent that these characteristics be represented in the process of evaluation. A clear and well established link between 'what is valued' and 'what is evaluated' enables learning and teaching to be undertaken in a coherent manner.

Figure 1: The Educated Citizen

Source: British Columbia Primary Program Foundation Document, British Columbia Ministry of Education.

The Educated Citizen is described as someone who is:

- thoughtful, able to learn and to think critically, and who can communicate information from a broad knowledge base
- creative, flexible, self-motivated and who has a positive self-image
- capable of making independent decisions
- skilled and who can contribute to society generally, including the world of work
- productive, who gains satisfaction through achievement and who strives for physical well-being
- cooperative, principled, and respectful of others regardless of differences
- aware of the rights and prepared to exercise the responsibilities of an individual within the family, the community, Canada, and the world.

(Ministry of Education, A Mandate for the School System, 1989)

The process of evaluation has been described by Hargreaves and Earl (1990) as "the tail that wags the curriculum dog" (p.141). By conceptualizing evaluation in this light the authors suggest that it has the potential to drive curriculum. Such a conceptualization divorces evaluation from curriculum and potentially promotes the notion that they are separate entities. When a lack of coherency exists between curricular goals and evaluation the hope of a sound educational program is forfeited. It is impossible for teachers to uphold curricular goals that have no significant relationship to the process of evaluation. Yet this is not an uncommon situation. Johnson (1991) made the following observation:

"...it seems self-evident that evaluative procedures should be determined by the goals of the program and yet many administrators and teachers are in the anomalous position of establishing broad brave goals, such as the promotion of life-long learners, and evaluating the child's capacity to syllabicate. To say there is a gap between the rhetoric of intention and the practice of evaluation is to make the most colossal understatement" (p.10).

To establish coherency, we need to re-cognize evaluation and curriculum as one synergistic, integrated, and continuous process, so that what is evaluated is an expression of what is valued.

Coherency cannot be established merely by presenting a theory based only on a consistent relationship between educational goals and the process of evaluation. The educational establishment must **demonstrate** and maintain a consistent relationship between 'what is valued', 'what is taught', 'what is assessed', and 'what is reported' so that each stands in logical and consistent relationship to one-another. The same values that are expressed in the same words need to be evident throughout the educational process. If goal statements indicate that a student's ability to 'generate creative and independent decisions' is valued, then it is necessary for instruction to foster environments where children have opportunities to engage in and cultivate such behaviors. This in turn makes it possible for teachers to actually assess, evaluate, and report those behaviors which are valued. Conversely, if educational goals uphold creative and independent decision-makers, yet instruction is characterized by the conformity to single correct answers, then it becomes impossible for the assessment and evaluation to draw upon behavioral data which stands in a coherent relationship to the educational goals.

As it is integral to evaluation, reporting must also be executed in a manner that exemplifies a coherent educational program. Reporting is a powerful mode of communication that conditions and confirms in the minds of children and parents 'what is valued'. For instance, if items such as 'spelling' and 'punctuation' receive high enough status to be given credit on the report card, then naturally parents are led to believe that these are vitally important aspects of being an educated individual. If this is what parents are socialized to value, it is likely that they will ask questions about their child's progress as it relates to these supposedly 'high status' items. Teachers may feel obliged to emphasize such items during instruction and consequently, the high status of such dated items is potentially perpetuated. Reporting should stand in a coherent relationship to all other levels of practice and clearly communicate both to children and parents what is valued.

Sustainable

The effort to adequately and meaningfully describe a phenomenon as complex as learning is a monumental task. In seeking a rational process of evaluation there needs to be a criteria to ensure that the process will be one that is possible for educators to sustain. The Random House Dictionary of English Language (1967) defines sustainable in the following way: to endure without giving way or yielding, to bear, to maintain or keep going as an action or process. Similarly, a sustainable process of evaluation is one that teachers can readily maintain and continue using without giving way. If on the other hand, the assessment strategies that teachers are expected to use exceed reasonable expectations, then a fair question that has been asked is: "At what point does the gathering of formal and informal assessment begin to interfere with teaching ?" (Fisher, 1991). An evaluation process that becomes so unwieldy that it interferes with instruction and learning is not reasonable and excludes the criterion of sustainable. For instance, it is not physically possible for educators to observe, evaluate, and report the numerous learning outcomes that are typically offered as the basis of evaluation. To provide an example that will be described in greater detail later, the British Columbia Primary Program offers over 700 learning descriptors to be used for the basis of assessment and evaluation. When 700 behaviours are to be applied to at least 25 students, the planning, instruction, assessment, evaluation, record keeping and reporting expectations are beyond what is reasonable for any educator to sustain. A sustainable process of evaluation addresses the fact that time is a limited and precious commodity by limiting the number of behaviours to be evaluated.

In order to satisfy the criterion of sustainability the behaviours to be evaluated need to be limited to a number that is manageable; optimally, these behaviours would be ones that may be broadly and consistently applied across all subject areas. The act of limiting behaviours needs to be done upon a sound and justifiable basis such that those identified as

the ones to be used as the basis of evaluation should be behaviours that are most conducive to supporting the child's learning success. These behaviours need to be identified and prioritized so that they are given precedence over less germane or superfluous behaviours. Ultimately, the behaviours to be established as the basis of the evaluative process should be those that represent the broad goals of the educational program.

Validity

Teachers' evaluative judgments of a child's learning are interpretations of a highly complex process, at best they are inferences based on multiple lines of evidence which may verify previous judgements or initiate their modification. The third criterion of a rational process of evaluation addresses the validity of these evaluative judgements. Towards this end 'the traits of valid evaluative judgements' will be described. First however, it is necessary to address the *validity of any judgement*, which ultimately is contingent upon the following:

1. How validity is conceived or defined,
2. The nature and complexity of the phenomenon to which the judgement applies,
3. For whose purposes the evaluative judgements are made

These three factors are the conceptual and contextual parameters of valid evaluative judgements, they provide a means of grounding validity and applying it specifically to the process of evaluation. It is within these parameters that valid judgements of learning may be conceived.

Conceptual Parameters: Validity

Validity is a term that is widely interpreted and broadly applied, necessarily it needs to be limited by a definition that serves the purposes of this study. Validity will be defined here simply as that criteria which *engenders certainty, upholds accuracy, and provides utility*. Certainty presumes accountability, confidence, and trust. When teachers construct valid judgments of learning they gain a sense of accountability and are able to readily justify

such judgements with confidence and credibility. In turn, students and parents are able to trust in these judgements and rely on their trustworthiness. For instance when parents ask the question "How is my child doing ?" or when students need to know the same information, evaluative judgments should convey an understanding of learning progress that is readily apparent. Such evaluative judgments foster certainty and trust and therefore have validity.

Accuracy, which presumes truth, is another pre-requisite of validity. In order to provide validity, judgements of learning also need to provide accurate representations of learning. Idealistically, a valid judgement of learning would convey an actual or exact representation of learning whereby there would be no margin of error in the interpretation of this judgement. Realistically however, a purely accurate or absolute representation of learning is not possible. Because we rely on human interpretation to understand learning and because learning is such a dynamic process, there will always be a certain margin of error. However, accuracy is a condition of validity that requires 'best-judgements' of learning be made, those that are as representative of reality as possible.

It is not sufficient that validity only engenders certainty and uphold accuracy, ultimately it must also ensure that judgements of learning have utility. Judgements of learning that uphold validity in this manner convey useful information and enable the child, parent, and teacher to make enlightened and meaningful engagements with future learning experiences. Such judgements communicate growth and indicate specific areas that need to be addressed in order for further learning to develop. They specify actions for the child, imply instructional responses for the teacher, and permit the parent to support learning in a manner most relevant to the child. Evaluative judgments that convey these messages have utility and are therefore valid.

Contextual Parameters: Learning and the Stakeholders

The validity of a judgement is dependent upon the context in which it is applied. Here the contextual parameters of validity are the phenomenon to which these judgements are applied - *learning*, and the individuals to whose purposes they are to serve - *the stakeholders*: the child, the parent, and the teacher.

The nature of learning is highly complex and multifaceted. It involves processing, orchestrating, and creating information and ideas on both a global and discrete level (Caine & Caine, 1991). Learning is an individual process, intrinsically it may be affected by biophysical and psycho-sociological variables such as genetics, health, personality, and morals. The diverse ways learning may progress is compounded by extrinsic variables such as socio-economic status, teaching style, and environmental factors. As research continues to reveal new insights into the nature of learning it becomes overwhelmingly obvious that we are far from "grasping the complexity and elegance of the way the brain learns" (Caine & Caine, 1991, p. 3). Attempts to evaluate the infinite diversity of learning is an overwhelming task and brings into question the validity of absolute and finite judgements. For instance, how is it possible to express a child's mathematical capacity by reducing it numerically to 45%, or 19/25? As sole indicators of learning, such expressions are inadequate and misleading; they do not promote understanding or certainty, nor do they provide useful information to the stakeholders. When applied to the process of learning, the validity of evaluative judgements resides in those statements which are comprehensive and reflect the complex and multifaceted nature of learning.

Evaluative judgements that uphold validity, those that provide certainty, accuracy, and utility, do so for all individuals who have a stake in these evaluative statements. The stakeholders are not a homogeneous group of individuals. The teacher, child, and parent

obviously bring varying degrees of understanding to what constitutes 'learning progress'. For instance, progress in reading may be expressed in the following way: John's lack of phonological awareness impedes fluency and comprehension at both the literal and inferential level. The way this evaluative judgement is expressed may have validity for the teacher, but undoubtedly it has considerably less for the child and the parent. The utility of this judgement may be apparent to the teacher, however it is unlikely that a student or parent would gain any certainty or utility on the basis of such a statement. Therefore, to uphold validity evaluative judgements of learning need to be expressed in a manner that accommodates each stakeholder's the level of understanding. As conceived within these parameters then, the validity of an evaluative judgement has a permissible variation that is bound both conceptually and contextually. The traits inherent to valid judgements of learning are indicated within these conceptual and contextual parameters and are described below.

Traits of Evaluative Judgements Upholding Validity

The nature and construction of evaluative judgements may occur in various ways. For instance, below are two distinct 'forms of expression' that communicate an evaluation of a student's writing. These samples will be used to explicate the traits of evaluative judgements that uphold validity. Individually these traits do not uphold valid judgments of learning, it is only when these traits are applied collectively that validity is satisfied.

Descriptive Account

John's writing is at an acceptable level for a child of his age. His creative writing has improved remarkably over the last term. He is learning to effectively organize his ideas and weave interesting words into his writing. His Halloween suspense story was very popular amongst his peers; he used very graphic and descriptive words and built tension into his story entitled "Escape !" John's creative writing is often humorous; he is able to clearly convey an important social issue in a meaningful and unique manner, such as his 'Mutants of Society' poem.

John's formal writing is below expectation. His reports are generally a last minute effort due to his lack of planning and industry. The result is a usually just a list of facts rather than a well organized and supported report. This has occurred both in Science and in Social Studies. John has the ability to produce high quality work; improvement could be gained if he planned his projects early and applied himself.

Numerical Summation

17/20

#1 Valid judgments are expressed descriptively and comprehensively rather than reduced numerically

Judgements of learning uphold validity to a greater degree when they are expressed and communicated descriptively and comprehensively rather than numerically. It is conceivable that both forms of expression contain an equal amount of information; however this is likely only apparent to the teacher who derived the numbers on the basis of some evaluative criteria. As indicated earlier, certainty, accuracy, and utility are realized to a greater degree when learning progress is communicated descriptively rather than reduced numerically. As can be seen from the evaluation of John's writing above, the descriptive account indicates the evaluative criteria and requires less interpretation than does numerical

summation. Information communicated in this manner engenders certainty and provides utility more readily to all three stakeholders. The greater validity of descriptive judgements may be understood by considering the way in which doctors communicate with their patients. Doctors may use a high level of technology to assess a patient's condition and in doing so generate various numbers that express the physiological evaluation of that patient. However, it is unlikely that the doctor would communicate the patient's condition to the family as a series of technological terms, symbols, or numbers. In order to foster understanding and to help the patient's family provide the necessary and appropriate care the doctor will describe and clarify his/her evaluation in terms that are meaningful to the family. Likewise, describing learning progress in terms that are meaningful and understandable to children and parents have greater validity.

2 Valid judgements are derived from multiple sources of evidence

Validity is not adequately ensured by using one form of expression rather than another to describe learning. Unless some form of quality control exists a descriptive account of learning may be just as banal as an evaluative judgement expressed by numerical summation. To uphold validity evaluative judgments need to be founded upon a broad and relevant basis where evaluative judgments are derived from multiple sources of evidence.

The complex and dynamic nature of learning seemingly makes the absolute understanding of 'learning progress' an ideal that is beyond our means. Subsequently it seems prudent that judgements of learning be recognized as inferences or approximations. It is when these judgements become *substantiated inferences* derived through multiple sources of evidence that they are able to uphold validity. Anthony, Johnson, Mickelson, & Preece (1991), observe that, "validity is dependent upon making the samples (of learning)

as numerous and representative as possible" (p.13). Through triangulation, accessing evidence of learning from numerous sources and from within numerous settings, judgements of learning can be verified or modified. For instance, on the basis seeing creativity in one context such as art a teacher may form the following judgement: 'Katy is a creative child'. By accessing multiple evidence, seeing creativity (or a lack of) in language arts, or math, or movement education, the teacher may gain a sense of certainty in her original judgement or recognize the need to modify it.

3 Valid judgements are based upon a community consensus

The validity of evaluative judgements is also contingent upon the relevancy of 'What is described' when communicating learning progress. For instance, one could descriptively express a triangulated and well substantiated judgement such as 'Katy can decode words'. However, if Katy were an above average student in the upper intermediate level, then it is unlikely that such a judgment would be valued as a significant learning accomplishment. The validity of such a statement would be just cause for doubt, its lack of relevance and significance does not engender certainty nor does it offer utility. It is necessary that judgments of learning reflect a community consensus of what is significant, socially acceptable, and relevant within the larger society. Monroe (1991) emphasizes the importance of comprehensive and relevant assessment, he states that assessment "must be based on an inclusive understanding of knowledge and how it is acquired and developed" (p. 100). In order to be valid the interpretation of the child's ability to write needs to be expressed in a manner that is readily understood by the child, parent, and teacher. In addition, this understanding should be accessible to individuals who are not in close proximity to the child yet who are significant as members of a society within which the child will function as an adult. For instance, it is likely that greater certainty is offered to

individuals outside of the educational profession, if a child's writing ability was communicated descriptively rather than numerically. In short, the manner in which learning is described should reflect the educational goals of society that have been informed by a current body of research. Thus, consensus encompasses a broad and relevant constituency who endorse a common vision of an educated citizen. This constituency includes:

- Those knowledgeable experts closest to the child,
- A research body who inform the educational community with insights about knowledge and how it is acquired and developed
- Individuals on the periphery of the child, who still influence to some degree what happens to that child at school. These individuals represent the educational needs of society.

4 Evaluative judgements uphold validity when they specify relative standing

If evaluative judgements are to provide a clear understanding of learning progress, then it is necessary that they indicate achievement relative to what is normally expected for children of a similar age. For instance, consider the evaluation below:

John is a thoughtful learner

I have noticed an immense improvement in John's reading comprehension; his imagination allows him to read between the lines effectively and find out what the characters in the story are thinking and feeling. During our 'Tripod' novel study John has come up with some very thoughtful predictions and explanations for the story's events.

(Kathryn Turnbull, 1992)

Although John's reading ability has been described rather than represented numerically and is well substantiated with evidence, it lacks validity because it does not inform the child or parent whether or not the child's achievement is at an acceptable level for his age. Thus, it is necessary that evaluative judgements include statements of relative standing. Without the provision of relative standing it would be fair of a parent to ask: "Yes, but how is John

doing?" Furthermore, unless such statements of relative standing are evident, it is likely that evaluative judgements will be open to wide and speculative interpretation. For example, if John were below expectation in reading ability the above judgement may conceivably lead both the parent and child to false conclusions regarding the child's achievement and progress. Therefore in order to convey a clear understanding of progress it is necessary to provide judgments of learning that communicate definitive information regarding level of achievement relative to what is acceptable for individuals within a given age range.

It is necessary that statements of relative standing are made with caution. Such statements should not be recognized as finite or absolute judgements purposed towards the comparison of children. Given the complexity of learning it seems highly artificial for evaluative judgments to rank a child as though learning were a discrete skill that could be isolated and measured. Statements of relative standing are more appropriately offered as *'estimates of achievement' relative to widely held and reasonable expectations for children within a given age range*. Widely held expectations are described as generalizations about patterns of development and learning over time that are based on 'expert knowledge, current research, observation of children, and the collective wisdom and common sense of parents and teachers' (Supporting Learning: A Resource for Parents and Teachers, 1991 British Columbia Ministry of Education). Statements of relative standing then are rough 'best estimates' of progress within widely held expectations. They communicate a clear understanding of progress so that the parent and child know whether or not learning is at expectation, below expectation, or above expectation relative to other children of a similar age.

5 Evaluative judgements upholding validity are established through an ongoing process of validation.

Making a judgement of a child's learning is not a single isolated event which then has a past, rather it is more justly conceived as an ongoing process that is 'eventful', seeking continual verification in the present. Attempts to describe learning are based upon inferences which necessarily, but artificially fixate a convoluted and dynamic process. As soon as a judgment is formed the status of learning has already changed, or new evidence from other contexts reveal new understandings of learning that necessitate a modified judgment. Given the nature of learning then, judgments that uphold validity are those that seek verification by drawing upon a variety of learning events. Thus, constructing judgments of learning is a process of validation that is eventful and that is continually grounded in the present.

Recognizing *the formation of judgments as process* is supported by Messick (1989) who emphasizes that validity is a matter of degree, not all or none and inevitably then, validity is an evolving property. If evaluation is an ongoing process of validation, then a *tentative orientation* of the evaluator to the learning environment is required. An orientation that is tentative seeks to understand the child's learning progress as fully as possible by actively hesitating to place an inordinate amount of security in initial judgements or opinions of learning. Thus, absolute judgments need to be actively avoided and early evaluations of learning should not be construed as a resting place obtained just because such evaluations may appear justifiable within a single context. Accepting initial judgements as actual indicators of progress threatens to numb the perceptiveness the evaluator brings to the nuances of learning; potentially the evaluation process degenerates as the inquisitiveness and rigor necessary to the task of validation is not forthcoming. Thus a delicate balance exists in a tentative orientation to the process of evaluation. While the goal is to gain as much certainty and accuracy as possible in understanding the nature of a

child's learning, simultaneously it must be recognized that certainty and accuracy are just out of reach and evaluative judgements therefore in need of ongoing verification. In the words of Caine and Caine (1991), a tentative orientation requires a "toleration of ambiguity and an acceptance of active uncertainty" (p. vii); such an orientation requires the continual verification and modification of inferences and interpretations in order to validate judgments of learning.

In this thesis, validity is conceptualized as the criteria which provides certainty, accuracy, and utility. Contextually, validity is bound to the process of learning and serves the purposes of the stakeholders. These conceptual and contextual parameters indicate the nature of valid evaluative judgments, those that:

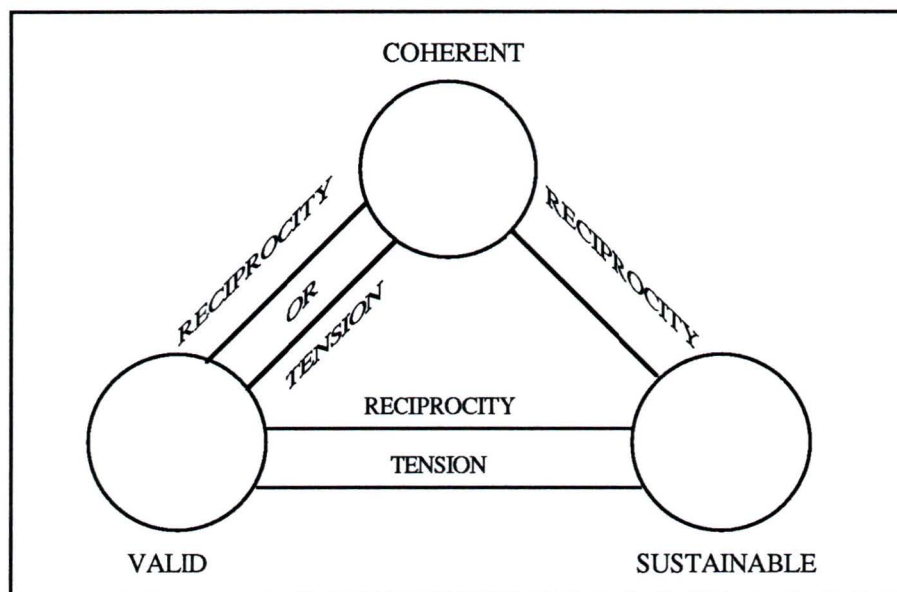
- describe learning rather than reduce it numerically,
- are derived upon a broad and relevant basis,
- specify relative standing, and
- are established through an ongoing process of validation.

The Relationship Amongst the Criteria

Three Lenses, One Focus

Three separate lenses have been applied to the process of evaluation, but it is only when they are brought together that a rational process of evaluation comes into focus. An interdependence exists between the criteria of coherence, sustainable, and validity, that is pre-requisite to a rational process of evaluation. In other words, all three criteria must be satisfied simultaneously in order for the instructional-evaluative process to be rational. The diagram below illustrates the nature of the relationships existing between the criteria, they can be described as one of reciprocity, tension, or a combination of both.

Figure 2: Potential Relationships Between Coherence, Sustainable, and Valid



Valid and Sustainable

The relationship between the criteria of valid and sustainable is one of tension. Validity requires breadth of description, while a sustainable process seeks an efficiency which reduces the description. A pre-occupation with validity in terms of triangulated and multidimensional description tends to obscure the need to satisfy the criteria of sustainability. If the evaluation process over-emphasizes validity without recognizing the criteria of sustainability, it often results in an unmanageable proliferation of data. For instance, checklists are just one form of data used to represent the child's learning progress. On a single checklist it is not uncommon to find upwards of a dozen observable behaviors in a single category (*reading* in language arts) within an area of content. Each category is often broken down into sub-categories (reading - comprehension, oral reading, silent reading, vocabulary, etc.) and each subcategory comes complete with its own checklist. Combine the management of all this with thirty students and several recording intervals and it becomes apparent how unwieldy this can be. Johnson (1991) cites a specific example which illustrates the enormity of what is expected of the teacher:

"Forester and Reinhart (1987) offer a checklist for emergent and developing reading with 98 items on it. They also provide twelve little boxes to record the occasions on which the behavior was observed. For a single child the checklist seems to imply that $98 \times 12 = 1,176$ observations are appropriate. For a teacher with 30 children this would amount to 35,280 observations for each reporting occasion" (p. 22).

An evaluative process that only responds to the criteria of validity is likely to do so at the expense of a process of evaluation that is sustainable.

Although an over-emphasis on validity may result in a *process* of evaluation that is not sustainable, it is the *products* of evaluation that become defective when evaluation is perceived only through the lense of 'sustainability'. Educators who are unable to

endure without giving way the management of a evaluation process conceived only in terms of validity may understandably look to a process that is sustainable. However, when the *primary* interest is in offering a sustainable process of evaluation, the credibility and utility of the resulting evaluative products becomes questionable. The tendency of a sustainable process of evaluation is to replace a 'thick and rich' description, as indicated by validity, with an evaluative product that has greater economy. Generally this replacement occurs as a form of data reduction that offers greater efficiency. Data reduction is acceptable if executed in a manner that does not subordinate validity; unfortunately, in terms of evaluation, this has not been our legacy. In the past, expediency and standardization characterized approaches to evaluation that resulted in evaluative products that were highly artificial: the complex process of learning was reduced and expressed as a number. In the past two decades, research has offered the educational community with a vast amount of knowledge regarding the diversity and complexity of learning, indicating that such a mechanized, standardized approach to the evaluation of children's learning lacks validity (Bredekamp & Shepard, 1989; Cambourne & Turbill, 1989; Goodman, Goodman, & Hood, 1989). In order to ease the tension between the criteria of 'valid' and 'sustainable' a more balanced perspective is required. Such a perspective fully recognizes what is lost by exercising either extreme of 'valid' or 'sustainable'. This perspective receives greater acuity when the criterion of coherence is considered.

Coherence: The Critical Criteria

Coherence may be viewed as the critical criteria as it permits an interdependent relationship amongst all three criteria. When this relationship is established it balances the perspective brought to the evaluative process. In order to clarify the need for a balanced relationship, it is necessary to examine the relationship between coherence and the other two criteria.

Coherence and Sustainable

There is a reciprocal relationship between the criteria of coherence and sustainable; they mutually benefit one another by limiting and focusing the evaluation process on goals of the educational program. Coherence focuses and limits 'what is evaluated' on the basis of 'what is valued' as represented by the educational goals. A sustainable process of evaluation emphasizes a manageable amount of data; but as demonstrated a sustainable process requires a sound basis for reducing data in order to maintain the integrity of the educational program. The criteria of coherence establishes the sound basis for data reduction; the teacher can sustain an evaluative process when the assessment data she gathers is limited to those behaviours which directly represent the goals of the educational program.

Coherence and Valid

The relationship between the criteria of coherence and validity may either be one of reciprocity, or one of tension. The nature of the relationship is largely determined by the *quality* of the educational goals. When the educational goals are informed by research, indicative of the way children learn, and responsive to the needs of society, then a

reciprocal relationship between coherence and validity is permitted. Coherence ensures that 'what is evaluated' is representative of the educational goals. If the educational goals are informed and stated meaningfully, then a valid process of evaluation may be realized. Sound educational goals permit a reciprocal relationship between the criterion of coherence and validity.

Within a context where unsound educational goals are evident, the criteria of coherence and valid exist in tension. Coherence maintains the continuity between the educational goals and evaluation; it does not establish the goals and cannot ensure that 'what is evaluated' represents 'what *should* be evaluated.' In such circumstances, the continuity that coherence seeks to maintain is in opposition to the primary concern of validity - that being, to provide evaluative statements that ensure certainty, accuracy, and utility. Valid evaluative statements can not exist within a program that is founded upon inadequate or deficient educational goals, *especially when* coherency is evident within the program.

In summary, a rational evaluation process is conceived within an educational system that maintains a balanced perspective and an interdependent relationship between the criteria of coherence, sustainability, and validity. And equally important, it is necessary to recognize that such a process of evaluation is ultimately contingent upon informed educational goals.

Chapter 2: The Literature Review

The process of evaluation continues to evolve as educators see with greater clarity the complexity of learning and have redefined their instructional methods on a more commensurate basis with those approaches to learning that are identified as natural and student-centered. This natural approach is encompassed within the tenets of a whole language philosophy and is representative of what is increasingly being endorsed as a sound means of evaluation within the classroom (Cambourne, 1990; Goodman, Goodman & Hood, 1990). This evolution has indicated several changes in the way children are being evaluated. The nature of these changes will be described in Part I of this chapter by comparing the philosophies that underpin a whole language approach and that of a traditional approach. In part II of this chapter the strengths and weaknesses of a whole language approach to evaluation will be identified by using the criteria of coherency, sustainability, and validity. In the final section of this chapter, Part III, the evaluation processes forwarded by the British Columbia Primary Program will be examined using the same three criteria.

Part I: Comparing Whole Language and Traditional Approaches to Evaluation

'Traditional' approaches of instruction are identified here as those which view the acquisition of literacy optimized by breaking language into a hierarchy of decontextualized sub-skills. The traditional approach introduces these sub-skills in a specific sequence which must be mastered in a linear-additive manner. Lessons are also formally sequenced by the teacher through a reliance on: controlled vocabulary lists, directed reading programs found in basal readers, phonics and whole-word instruction, workbooks and ditto masters (Goodman, 1986). In keeping with its philosophy, a traditional approach ascribes to

measurement-based evaluation procedures where sub-skills are isolated and measured along a linear scale. Accountability is ensured by upholding standards of scientific rigor which are characterized by quantitative measures and norm-referenced criteria. Thus, a high level of trust is placed in tests and the technology attributed to developing and interpreting their results. The purpose of this approach to evaluation is to rank, grade, and group children according to their apparent ability as measured by various tests.

A whole language philosophy is diametrically opposed to that of a traditional approach. Based on current theories of learning, the whole language philosophy views the acquisition of literacy best achieved in settings where language is used functionally and is experienced in highly contextualized settings. Goodman (1989) describes whole language teachers as those who "use a range of authentic, natural, functional materials to build literacy, . . . (and who) integrate oral and written language development with conceptual learning" (p. xi). In a whole language classroom, the child's developing literacy is facilitated through his/her immersion within a rich linguistic environment.

The whole language evaluation process draws on disciplines of ethnography, anthropology and sociology. Its main purpose is to describe evaluative judgements regarding the growth of the child's developing literacy. It does not seek to grade or rank the child's literacy development. Four significant principles appear to be characteristic of the whole language evaluation process: it is multidimensional, it has a high level of situational validity, it has a synergistic relationship with instruction, and it is based on the constructive nature of learning. In order to fulfill its goal of providing a comprehensive illustration of the child's literacy growth, the evaluation process is multidimensional - it uses numerous procedures in order to collect a wide array of data. Student data may be derived from structured observations, field notes, checklists, student conferences and interviews, self-evaluations, tests, samples, and error or miscue analysis which may be compiled into various forms of

individual student portfolios. The nature of the whole language evaluation process ensures a high level of situational validity as the child's developing literacy is observed and interpreted as it occurs within the everyday ebb and flow of classroom activity. Another characteristic unique to this evaluation process is that it has a synergistic, or recursive relationship with instruction. Instructional decisions are responsive to the assessments and interpretations of the child's progress just as the evaluation procedures are embedded within instruction. Finally, the evaluation process is based on the constructive nature of learning, recognizing that each child will construct meaning by assimilating and accommodating new information into their existing repertoires of experience. The intent of the whole language evaluation process is to facilitate learning on an individual basis rather than imposing inappropriate grouping structures upon the child. This paradigm shift in evaluation has resulted in the popularization of an evaluation process that is aligned to a whole language philosophy; it is a process that validates the 'human as instrument' versus the 'test as instrument' (Cambourne & Turbill, 1990).

Part II: An Examination of Whole Language Evaluation

To what extent is a Whole Language approach to evaluation coherent, sustainable, and valid? The intent of this section is to determine whether or not whole language presents a coherent, valid, and sustainable approach to evaluation. Although it may appear to have eclipsed the approaches to evaluation that have gone before it, a whole language approach is not without deficiencies. The validity of the traditional approach has been scrutinized and widely criticized (Bredekemp & Shepard, 1989; Goodman, 1986; Clay, 1990; Cambourne, 1988). To what extent can the whole language evaluation process withstand the same scrutiny? One does not readily engage in a critique of a theory that has emphasized and advanced such a child-centered approach to learning and teaching. Indeed, evaluative

processes within a whole language approach appear to be purposed towards satisfying the criterion of validity. That is, evaluative statements tend to be descriptive, comprehensive, rely upon triangulated sources of evidence, and are multidimensional. In light of this, it might be granted that the intentions of a whole language evaluation process are to offer validity to those judgements applied to a child's learning. However, it is the ability of whole language to uphold a balanced perspective and interdependent relationship between *all three* criteria that needs to be carefully examined. The following discussion provides an analysis of whole language evaluation specifically in terms of coherence and sustainability to ascertain whether or not it is a rational process of evaluation.

Coherence

Coherence is the logical connection between an educational program's mission and goal statements and its process of evaluation. It is the bridge between 'what is valued' and 'what is evaluated'. It is difficult to ascertain whether or not whole language evaluation is a coherent process because it tends to be loosely defined. Its mission and goals are not explicated, and therefore within a whole language approach, the 'bridge', or coherency, becomes obsolete. Bergeron (1990) conducted a comprehensive analysis of 64 current whole language articles to discover the meaning of the term 'whole language', she concluded that the "review and analysis found that definitions and descriptions of whole language vary widely throughout the literature and that differences exist between school and university-based authors' perceptions of this concept" (p.301).

The lack of definition indicates some significant problems. Sumara and Walker (1991) state that "the whole language agenda of flexible principle rather than rigid prescription has great strength (but that) the flexibility that is its strength leaves unclear

boundaries . . . " (p.276). As a philosophy /approach, the jurisdiction of whole language does not extend to establishing statements of mission or goals. Subsequently, 'what is valued' might be implied, but not specified. If what is valued is not explicated, then the whole language process of evaluation cannot possibly satisfy the criterion of coherency.

The lack of specification not only compromises the coherency of the whole language evaluation process, but it also threatens to reduce it to a fruitless relativity. Teachers are offered a wide range of latitude and flexibility by the fact that the whole language process of evaluation is expressed in broad and general terms and that it does not prescribe or specify how this process should be operationalized. This characteristic of a whole language program may demonstrate 'trust in teachers', but the lack of specification is highly assumptive and threatens to reduce a valid theory to one that is extremely relative. As Sumara and Walker (1991) indicate, 'flexible principle' thrives in a system where 'unclear boundaries' exist. These undefined boundaries presume that both novice and veteran teachers have somehow acquired the expertise of discrete and skilled observation techniques. It assumes that all teachers regardless experience, intuitively know what behaviors are significant benchmarks of literacy growth, how to accurately interpret these behaviors, and what instructional intervention that they indicate. Furthermore, the lack of specification shifts the entire burden of accountability and responsibility away from the evaluative process itself and onto the individual teacher. Without the training or common understandings that the whole language evaluation process assumes, teachers are left to proceed according to their own experience and biases. A case in point is emphasized by Cambourne (1988), "the only checklists that ever work are those which are grounded in one's own observations and belief systems" (p.136). This implies that what will be assessed, the *interpretation* of the data collected, and the *instructional decisions* that result, are all relative to what each individual teacher values. This is acceptable only when *what* the individual teacher values is established on a common understanding of what constitutes an educated person as endorsed

by the mission and goals statements of the educational program. Unfortunately, such statements are not inherent within a whole language approach.

The purpose of this analysis is not meant to undermine the best intentions of teachers, but rather to illustrate how a lack of specification compromises the coherence of the education system. For example, if data collection and interpretation is relative to the aims and beliefs of each teacher, how can the continuity of the school system, from one grade level to the next, be assured? Similarly, if a child moves from one school (or district) to another, then he/she has the right to expect some degree of continuity between schools and districts. The unclear boundaries and lack of specification also endangers the whole language approach itself. The congruence between theory and practice is eroded by the lack of definition of what whole language is, and by its lack of specification and reasonable prescription. Thus, the whole language practice is relative to the interpretation of each teacher which may or may not be in keeping with the overriding principles of whole language. Sumara and Walker (1991) believe that "there would be more truth and security in an emphasis on whole language teaching as an enterprise of deliberate planning designed to lead children to extend their experience and language toward clearly articulated goals . . ." (p.276).

Sustainable

So far whole language evaluation has been described as a process that attempts to satisfy the criteria of validity, and one that foregoes the criteria of coherence because it does not operate on the basis of any clearly establish goals. Such a program also foregoes the criterion of sustainable because under these conditions there is a tendency towards the proliferation of assessment data which becomes unwieldy and instructionally unfeasible. Within a whole language approach there is an emphasis placed upon providing as much assessment information as possible to describe learning. The checklist illustration provided

earlier implied that for one area in language arts the teacher would mark off '35,280 little boxes on a single checklist' as one means of gathering and recording assessment data (Johnson, 1990). This is merely one of the ways suggested for gathering and recording assessment information. It is also expected that teachers will use observation and recorded anecdotes, teacher tests, standardized tests, informal reading inventories, student self-evaluations, samples of work, etc., as other means of collecting assessment information (Goodman, Goodman, Hood, 1990). It is not this multidimensional approach that indicates a lack of instructional feasibility, rather it is the lack of basis on which to collect this information that renders the process unfeasible and irrational. What behaviors merit observation and response? In its effort to seemingly uphold validity, the whole language approach implies 'more information is better', yet because it does not articulate any goals, whole language does not forward any justifiable basis upon which to collect assessment information - implying that any and all learning behaviors are significant and warrant some form of evaluative response. It is dubious whether or not teachers can sustain, or 'endure without giving way', what the whole language approach implies. The indiscriminant proliferation of assessment data that results within a whole language approach renders it unsustainable.

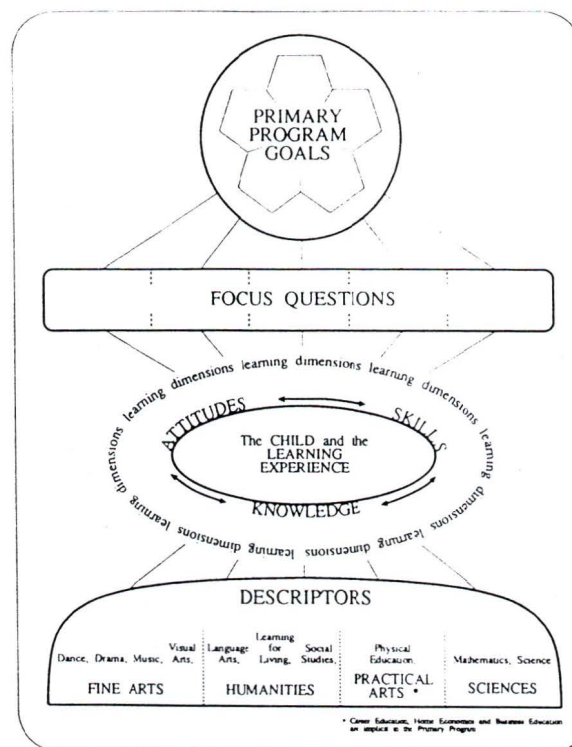
Part III: Evaluation in British Columbia

To what extent does the British Columbia Primary Program (1990) forward a coherent, sustainable, and valid process of evaluation? The new British Columbia Primary Program (BCPP), which exemplifies a state of the art educational program, will be analyzed to determine if the evaluation process it forwards satisfies the criteria of a rational process of evaluation. The purpose of this examination is to identify both the strengths and shortcomings of the BCPP and to apply what these indicate with regards to constructing a process of evaluation that is coherent, sustainable and valid.

An Overview of the BCPP Evaluation Process

The BCPP ascribes to an evaluation process that is theoretically aligned with a whole language approach. However, the departure the BCPP makes from whole language approach is that its program is thoroughly defined and specified. The *BCPP Foundation Document* (1990) articulates a broad process of evaluation in terms of its purposes, principles, and practices which have been derived from its theoretical base - the goals of the program. To help teachers understand and operationalize a process of substantial breadth, the BCPP has developed a conceptual framework called the *Ways of Viewing the Learner*, see figure 2.1. The BCPP describes this model as a "starting point for assessment and evaluation" that illustrates the "interrelatedness of the program goals, focus questions, learning dimensions and descriptions of children's learning" (*BCPP Foundation Document*, 1990, p.108).

Figure 3: The BC Primary Program - Ways of Viewing Children's Learning



In order to provide a description of the BCPP evaluation process this model will be summarized. Below is a brief description and sample of each area as it appears in the *BCPP Foundation Document* (1990, p.108-116).

Ways of Viewing the Learner

The Primary Program Goals

- *the program goals and foundation statements assist teachers to plan experiences that honour and acknowledge the total development of the learner;*
- The five goal areas outlined by the Program are:

Aesthetic and Artistic Development
Emotional and Social Development
Intellectual Development
Physical Development
Social Responsibility

Example: Intellectual Development

A variety of experiences will be provided which enable the child to:

- *sustain and extend natural curiosity;*
- *use language to communicate effectively*

The Focus Questions

- identify observable behaviours that may indicate the child's development in each of the goal areas. The focus questions help the teacher achieve a global view of the child's progress

Example: Intellectual Development

Does the child:

- *demonstrate a curious and inquiring attitude ?*
- *generate and communicate ideas ?*

The Learning Dimensions

- the learning dimensions help the teacher to focus on the wholeness of the child's learning. Examining attitudes, skills and knowledge provides a broader and more balanced view of the child's learning than the traditional focus on knowledge alone

Example: Aspects of the Learning Dimensions

Attitudes and Dispositions	Skills and Processes	Knowledge and Understanding
<i>Self-respect</i>	<i>Thinking</i>	<i>Factual, Conceptual and Procedural Knowledge of the natural world</i>
<i>Self-motivation</i>	<i>Representing</i>	
<i>Curiosity</i>	<i>Quantitative Reasoning</i>	

The Learning Descriptors

- are the link between curriculum and assessment and evaluation;
- provide a developmental view of growth that is cumulative (though not necessarily sequential);
- Reflect the scope of the curriculum within the Primary Program;
- provide a broad-based continuum of known and observable learnings and behaviours.

Example: (Writing Development, expanding)

Attitude

- *enjoys playing with words and ideas in writing*
- *values and seeks feedback*

Skill

- *can convey complex meanings*
- *writes in an organized fashion (sequential/well sustained)*

Knowledge

- *knows the needs of and is responsive to the reader*
- *extensive knowledge of the language of writing (example: draft, editing, description, etc.)*

An Examination of the BCPP's Evaluation Process

The above overview of the BCPP evaluation process provides the conceptual framework required to revisit this process in order to address the question: To what extent does the BCPP forward a coherent, sustainable, and valid process of evaluation ? This analysis will consider the coherency of the evaluation process first. To determine coherency, whether or not there is a logical connection between 'what is valued' and 'what is evaluated', the above examples from the model *The Ways of Viewing the Learner* and the *Educated Citizen* will be cross-referenced. If coherency does exist within the BCPP one would anticipate that a congruency between the *Educated Citizen* and the 'Learning Descriptors' would be evident because the Educated Citizen represents the broad goals of the program, and the Learning Descriptors are recommended as a "starting point for describing and interpreting authentic evidence" (BCPP Foundation Document, 1990, p.116). In other words, the learning descriptors are the level at which the teacher operationalizes the mission of the program. The examples in both the model and the *Educated Citizen* are intersected by the common thread of creativity, communication, and curiosity. Because these characteristics are evident at all levels, they demonstrate the logical connection between what is valued (the mission and goals of the program) and what is evaluated (the learning descriptors). In 'theory' the BCPP has forwarded a well-grounded evaluation process that appears to satisfy the criterion of coherency.

Is it possible for teachers to implement the rhetoric of the theory in a manner that maintains coherence within the BCPP ? Well intentioned theories are not always possible to operationalize, or put into practice. The 'practice' of the BCPP is forged at the level of the learning descriptors which "reflect the scope of the curriculum within the Primary Program" (BCPP Foundation Document, 1990, p. 116). The examples above reveal only a minute's portion of the entire program. When all of the learning descriptors identified for 18

'subjects' outlined by the BCPP are combined, they total over 600 in number. Within this vast milieu of learning descriptors is there any possibility of identifying where they originated from? The learning descriptors originated from the broad goals of the program, the Educated Citizen, which represents what society values and aspires to developing in the education of their children; however, it is unlikely that 'what is valued' is apparent from the viewing the Learning Descriptors. For instance, consider the following Learning Descriptors which are offered as behaviours to be used as a focus for evaluating a child's writing:

- Attitude :* The child is interested in the names of some letters and how to represent specific speech sounds
- Skill:* The child writes in a journal on a regular basis on personal topics
- Knowledge:* The child begins to understand writing as 'ideas written down'

If asked to identify which learning descriptors correspond to the characteristics outlined in the *Educated Citizen* would it be possible? This seems unlikely. The program is so broad and detailed that the connection between what society values and what teachers are expected to evaluate is no longer discernable. This analysis suggests that in *theory* the program firmly establishes coherency, but that in *actual practice* maintaining coherency is obstructed by the proliferation of the learner outcomes.

The unwieldiness of the BCPP is detrimental in other ways. The lack of definition and specification in the whole language evaluation regime reduced the process to relativity. Paradoxically, the opposite phenomenon, hyper-definition and hyper-specification of the BCPP, seems to subject the evaluation process to the same problem. The model, Ways of Viewing Children's Learning, forwards a basis for assessment and evaluation and "provides a variety of perspectives teachers may use to help them reflect on and make decisions about children and their learning needs" (p.108). The variety of perspectives is extensive and the

entirety of the program is astronomical. In addition to the 600 learning descriptors, teachers are expected to conserve the following while assessing, evaluating and reporting on student achievement: 600 learning descriptors, within 3 learning dimensions, with regards to the developmental stage of the child (in reading and writing development 5 stages of development are outlined, in all the other subjects 2 stages are indicated); categorized in the 5 goal areas. This implies that there are at least $600 \times 3 \times (2) \times 5 = 18,000$ possible ways to describe each child's learning. It is not difficult to see how this plethora of expectations and specifications deteriorates to the relativity of each individual teacher's biases. Consider two teachers describing the same child's learning progress within this system. What one teacher chooses to note as significant may be totally unrelated to how another teacher chooses to describe the same child. If wide discrepancies exist between what individual teachers report on, then the continuity of the educational program, from grade to grade and from school to school, is lost.

Does the BCPP forward an evaluation process that is sustainable? The analysis of sustainable requires that the criterion of validity also be taken into consideration. The attempt of the BCPP to uphold validity, appears to exclude the possibility of an evaluation process that is sustainable. A valid process of evaluation, one that offers certainty, accuracy, and utility, provides comprehensive, multidimensional, and triangulated evaluative statements which are meaningful and interpretable to the stakeholders. In its recognition of the complexity and diversity of the child's learning process, the BCPP has forwarded a detailed and multidimensional curriculum which also characterizes the evaluation process as previously illustrated. The evaluation process is called upon to adequately and meaningfully monitor, respond and communicate the convoluted and multi-dimensional nature of the child's learning. Furthermore, the BCPP Foundation Document (1990), states that "to enhance (the) holistic view of the child, the teacher may need to examine aspects of the child's learning from other perspectives and at other levels of specificity"(p.110). Although

these other perspectives and multiple levels of speciality foster validity, managing and sustaining them can only be accomplished through an extraordinary investment of time and energy. Not only is the reasonability of this expectation questionable, but so also is the expectation of teachers using the 600 learner descriptors as a basis for evaluation. Clearly the expectations of the BCPP are unmanageable and do not satisfy the criterion of sustainability.

In summary, the BCPP must be recognized for the quality and magnitude of its undertaking ~ it has laid the groundwork necessary for a rational education system that seeks to nurture the learning growth of the child. It forwards a philosophical and theoretical stance that is informed by current research, and by explicating a practice that is founded on this basis, the BCPP has bridged the gap that so often exists between theory and practice. Unfortunately, its best intentions threaten to become its undoing in 'actual' practice. While the groundwork for a rational education system has been laid, it is unrealistic to expect that it can be held intact within the classroom. The extent of the BCPP's definition and specification caused it to proliferate to such an enormity that it compromised the rationality of the program in three ways:

- the coherency that it was originally founded on became arbitrary in light of the fact that the connection between 'what is valued' and 'what is evaluated' was no longer distinguishable,
- it deteriorated to the relativity of the individual teacher thus forfeited its accountability, and
- it was not possible to sustain the evaluation process as indicated by the program; this was beyond a reasonable level of expectation.

What implications can be drawn from this review of the BCPP evaluation process? *Is it possible to construct a rational process of evaluation process, one that is coherent, sustainable, and valid?* The answer is not a digression from definition and specification as evidenced by the whole language approach; defining and specifying a program (and

therefore its' evaluating process) is a vital pre-requisite to forwarding a program that links theory to practice and is ultimately worthwhile. A possible solution is an evaluation process based on a simplified *frame-of-reference*, or *framework*, conceived within a program that has laid the groundwork necessary for a rational education system such as the BCPP.

Chapter 3: A Framework for Evaluation: Learner Characteristics

The need for a rational process of evaluation has been identified here as one that maintains a balanced perspective between the criteria of coherence, sustainability, and validity. This study offers a frame of reference for evaluation which will optimally uphold such a process, it is referred to as 'The Learner Characteristics Framework'. This Framework was conceived within the context of the BC Year 2000 Primary Program; it identifies eight characteristics (see Figure 4) which contribute to learning success and emphasizes the use of these characteristics as the direct basis for evaluation. Part I of this chapter discusses the theoretical principles upon which the Learner Characteristics are based, and Part II provides a fuller description of each Learner Characteristic.

Figure 4: LEARNER CHARACTERISTICS

Knowledge

- propositional knowledge: general knowledge the child has gained through experience; procedural knowledge: an understanding of processes and procedures, or 'how to' apply knowledge.

Self-esteem

- feelings of self-worth, self-awareness; the ability to realistically appraise oneself; ability to recognize and accept strengths and weaknesses

Thoughtful

- recognizes and seeks patterns; inferential thinking; reasoning and critical judgement; curious, reflective, and insightful

Industrious

- willing to apply self to task at hand, hardworking, perseverance and persistence in adversity and initial failures

Generative

- creative and productive: the ability to produce unique and original solutions, or apply the ideas and solutions of others in order to achieve a satisfactory end.

Empathetic

- awareness of, sensitivity to, concern for and willingness to act on behalf of others, collaborative, values the importance of interdependence

Risk-taking

- attempts new ventures with a sense of calculating which distinguishes it from foolhardiness or recklessness

Strategic

- planful: makes a plan in order to effect a desired end; resourceful: capacity to identify and bring personal, personnel, and material resources to bear on a problem; organized: capacity to select and deploy resources to effect a satisfactory solution.

Anthony, Johnson, Mickelson, Preece, Smith, 1992

Part I: The Theoretical Principles

In essence, the criteria identified for a rational process of evaluation, coherence, sustainable, and validity, comprise the foundational principles upon which the Learner Characteristics Framework is based. Each of the theoretical principles below will be discussed in order to show how the Learner Characteristics Framework has the *potential* to satisfy the criteria of a rational process of evaluation. It is important to note that the Learner Characteristics Framework makes *possible* a rational instructional-evaluative process in terms of coherency, sustainability, and validity; however, in and of itself the Framework can not guarantee a rational process of evaluation. Ultimately, it is the appropriate *use* of the Framework *by educators* that will determine whether or not the Framework's potential to satisfy the criteria will become a reality.

A rational process of evaluation needs to ensure:

1. Coherency:

Evaluation needs to be based upon what is held as significant and relevant within the educational community as well as within the broader society.

2. Sustainability:

In order to sustain and manage an evaluative process the number of behaviours to be evaluated need to be limited and this limitation needs to occur upon a sound and justifiable basis.

3. Validity:

In order to provide certainty, accuracy, and utility, methods of evaluation need to focus on 'relevant' behaviours. Such behaviours are: those most conducive to the development of the child's learning potential, and those that maintain and foster the *integrity of learning*.

COHERENCE: *Evaluation needs to be based upon those behaviours held as significant and relevant within the educational community as well as within the broader society.*

The *origins* of the characteristics represent *those behaviours held as significant and relevant within the educational community and broader society* and thereby establish the potential of Framework to uphold coherency. The list of Learner Characteristics was derived from two sources. The first source was accessed by asking educators what traits, attributes, or characteristics their students demonstrated that seemed to most significantly contribute to learning success (Johnson, Preece, Anthony, Mickelson, 1991). Independent of student age, or geographical area, the teachers consistently identified the same or very similar characteristics which contributed to student success; the list of Learner Characteristics became a synthesis of what these teachers identified. The second source from which the Learner Characteristics originated was the mission statement of the BC Year 2000 Program. The mission statement represents a societal endorsement and consensus for the goals of education and is mandated for all schools in British Columbia. The mission statement in British Columbia is called *The Educated Citizen*; basically, it identifies specific attributes of an educated individual which society places a high value upon and aspires to instilling and developing within their young people. Many of the traits in *The Educated Citizen* (below) are similar to the Learner Characteristics. Those particular aspects of *The Educated Citizen* which represent these traits have been underlined. Then, all underlined traits have been juxtaposed with the Learner Characteristics in order to demonstrate the existing similarity.

Figure 5: The Educated Citizen

<p>The Educated Citizen is described as someone who is:</p> <ul style="list-style-type: none"> • <u>thoughtful</u>, able to learn and to <u>think critically</u>, and who can communicate information from a <u>broad knowledge base</u> • <u>creative, flexible, self-motivated</u> and who has a <u>positive self-image</u> • capable of making <u>independent decisions</u> • skilled and who can <u>contribute to society</u> generally, including the world of work • <u>productive</u>, who gains satisfaction through achievement and who strives for physical well-being • <u>cooperative, principled, and respectful of others</u> regardless of differences • <u>aware of the rights</u> and prepared to <u>exercise the responsibilities</u> of an individual within the family, the community, Canada, and the world. <p style="text-align: right;"><i>(Ministry of Education, A Mandate for the School System, 1989)</i></p>
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Figure 6: Correspondence between Learner Characteristics and The Educated Citizen

The Educated Citizen	Learner Characteristics
thoughtful, think critically	Thoughtful
broad knowledge base	Knowledge
creative, productive	Generative
flexible	Strategic
self-motivated, positive self-image	Self-Esteem
capable of independent decisions	"
cooperative	Empathy
respectful of others	"
aware of the rights	"
exercise the responsibilities	Industrious
contributes to society	"

It is interesting to note that the Learner Characteristics appear to also represent those qualities that managers seeks in prospective employees; increasingly traits such as the Learner Characteristics are valued and recognized as those most applicable to the current needs of society:

"Tomorrow's successful employees will have to be problem solvers, decisions makers, adept negotiators, and thinkers who are at home with open-endedness, flexibility, and resourcefulness. They must be able to deal with uncertainty, complexity, the global village, the information explosion, other technologies, and many different cultures - and still maintain a set of values that foster an adequate degree of individual stability, integrity, and social harmony. It will not be enough for people to have acquired a store of nontransferable facts. They must have understood and internalized content, such as math, economics, and history, sufficiently to make it available spontaneously, appropriately, and in many different contexts" (Caine and Caine, 1991, p.14).

The Learner Characteristics are based upon the theoretical principle of coherency; they are consistent to and directly represent the broad educational goals of society as well as to those traits valued by teachers. And furthermore, coherency is maintained because the Framework forwards the Learner Characteristics as the **direct basis** upon which to apply the instructional-evaluative process. Unlike subjects, skills, or behaviours that have been subdivided and proliferated to the extent that the goals of the educational program are no longer discernable, the nature of the Learner Characteristics Framework allow goals of the educational program to remain intact and to become the (direct) focus of daily classroom activity.

SUSTAINABLE: *In order to sustain and manage an evaluative process the number of behaviours to be evaluated need to be limited, and this limitation needs to occur upon a sound and justifiable basis.*

The Learner Characteristics Framework is based upon the theoretical principle of sustainability in two ways. First, the framework limits the number of behaviours to be evaluated, and secondly it does so upon a sound and justifiable basis. The Framework provides eight single characteristics upon which to base the instructional-evaluative process in all curricular areas. As previously indicated, rather than being sub-divided into numerous behaviours, the Learner Characteristics are maintained as eight identifiable and observable characteristics that offer teachers a consistent and limited framework. In this way the framework not only provides teachers with a focus, but it also limits the behaviours (or characteristics) to be observed and evaluated to a much more sustainable number.

The second aspect of the theoretical principle corresponding to sustainable, indicates that the limitation of behaviours must **not** be done indiscriminately, but upon a

justifiable basis. The justifiable basis upon which the Learner Characteristics were identified was their correspondence to the goals of the educational program. It was by satisfying the criteria of coherence then that this aspect of sustainability was realized by the Framework.

VALIDITY: *In order to provide certainty, accuracy, and utility, methods of evaluation need to focus on 'relevant' behaviours. Such behaviours are: those most conducive to the development of the child's learning potential, and those that maintain and foster the integrity of learning.*

Validity was previously discussed in terms of providing certainty, accuracy, and utility. The theoretical principle corresponding to validity supports that certainty, accuracy, and utility will result when assessment, evaluation, and reporting reflect behaviours or characteristics that are relevant to the development of learning and that maintain the *integrity of learning*. "Relevancy" has already been addressed; briefly, relevant behaviours are those which represent the goals of education. As described for the purposes of this study, validity is dependent upon evaluative statements that convey information that is consistent to what society and the educational community identifies as relevant. If society values thoughtfulness, and if developing thoughtful individuals is the aim of education, then **valid** judgements of learning should necessarily convey information representing a child's thoughtfulness.

The second aspect of the theoretical principle corresponding to validity emphasizes that evaluative methods need to maintain and foster the *'integrity of learning'*. In other words, if learning is viewed in a limited way and evaluated from the same perspective, then validity will be forfeited. Learning involves, but far exceeds the acquisition of knowledge, or the mastery of curriculum outcomes which may be passively acquired by 'transmissions

of knowledge'. Learning is viewed here as a process that is both active and that has *dimensionality*. Learning involves the synchronistic application of, and continued development of three dimensions: propositional knowledge, procedural knowledge, and personal characteristics. An individual's propositional knowledge is basically all of the general facts and concepts known to that person. Procedural knowledge is an understanding of how to apply knowledge, or an understanding of process and procedures. Personal characteristics are the individual traits a person brings and applies to a given learning task. This third dimension is essential, yet it typically not recognized as a significant aspect of learning. Smith (1990) emphasizes that the willingness to *make decisions* or *apply oneself* during a particular learning occasion "involves personal (and personality) considerations, not cognitive strategies" (p.17). It this dimension of learning, personal characteristics, that recognizes, across a group of individuals, that learning is unconventional versus conforming, unique versus regular, and creative versus common. In essence, the dimension of personal characteristics validates the presence of the *individual* within a learning situation. Conversely, computers have propositional knowledge and procedural knowledge, but lack the characteristics of personality that may be applied uniquely or creatively to a learning task. Personal characteristics, such as those identified as the Learner characteristics, validate and capitalize on the fact that individuals learn in unique ways. To illustrate how these three learning dimensions are evident and how they are applied in concert, consider the results possible if students were asked to demonstrate learning by applying themselves to the following task:

Produce a device that moves liquid from one container to another, from some distance away (criteria: speed, grace, style and total water-spillage) (Canada Campus, Mar/Apr '92).

In order to accomplish this task the students would apply broad and unique applications of propositional knowledge, procedural knowledge, and personal characteristics. Understandings of physics, how to actually apply such concepts, and the personal characteristics, such as industry, thoughtfulness and generative, are orchestrated to effect a

satisfactory and unique solution. Conceivably, any two students could meet the given challenge in a number of equally successful ways, yet in ways that were distinct and unique from other students. When instructional-evaluative approaches allow these three dimensions to be applied collectively and synchronistically, the 'integrity of learning' is fostered and maintained. The Learner Characteristics Framework upholds the integrity of learning by using characteristics that may be uniquely expressed and broadly applied as a basis for evaluation rather than those which are rigid and controlled.

In summary, the Learner Characteristics Framework has the potential to uphold the criteria of coherence, sustainable, and valid because it identifies as a direct basis of evaluation a limited number of behaviours that are both relevant to society and conducive to fostering genuine learning. Thus the framework offers a balanced perspective among the criteria and potentially a rational process of evaluation.

Part II: The Characteristics

The purpose of this section is to describe the Learner Characteristics Framework in greater detail. Thus each Learner Characteristics will be described and followed by a real-life example provided by a classroom teachers. These examples help to show that the characteristics are observable, applicable to fostering learning within the classroom, as well as how they might be manifested by a student¹.

Knowledge

~ propositional knowledge: general knowledge the child has gained through experience; procedural knowledge: an understanding of processes and procedures, or 'how to' apply knowledge

The characteristic 'knowledge' involves propositional knowledge and procedural knowledge. Propositional knowledge is all the concept knowledge known to an individual which has been gained through life experiences, education, reading, or other sources of media. Examples of propositional knowledge vary from simple understandings such as knowing the alphabet, the months of the year, or the multiplication tables, to complex concepts such as knowing the laws of physics, a foreign language or algebraic algorithms. Procedural knowledge involves an understanding of processes and procedures; it is 'how to' knowledge. Knowing how to operate a computer, how to apply an algorithm, or how to apply a grammatical rule to spell an unfamiliar word, are all examples of procedural knowledge.

¹ Apart from the references documented in the text, the primary resource used to provide information regarding the characteristics was the discussions and unpublished manuscript of Johnson, Preece, Anthony, Mickelson, and Smith, 1992.

The amount of knowledge that an individual has is generally a product of age and experience, and to some degree ability. Unless disadvantaged by a learning difficulty, an individual's lack of knowledge is generally due to a lack of experience in a given area. Furthermore, there does not seem to be an upward limit to the optimal amount of knowledge. As applied to the general population, there is no such thing as 'too much knowledge'; indeed, an ever expanding repertoire of knowledge is desirable and permits quality decisions which, if appropriately applied, lead to increasingly improved circumstances of life.

An example and report of 'Knowledge':

Susie has a good base of general knowledge

Susie has a good basic knowledge of the concepts covered this term. She needs to review these concepts to maintain her skill level. Susie is aware that she needs to slow down and check her work to avoid making careless errors. Susie is increasing her general knowledge by reading and researching topics on her own time. She is currently using her class reading time to research cultural attractions in New York. She will be presenting a project on this in conjunction with one of her novels.

(Karen Wilkerson & Petra McAvoy, 1992)

Self-esteem

~ feelings of self-worth, self-awareness; the ability to realistically appraise oneself; ability to recognize and accept strengths and weaknesses

Self-esteem involves feelings of self-worth such as having a healthy self-image; being self aware or having the ability to realistically appraise oneself and accept ones strengths and weaknesses. Self-esteem is associated with attributes such as confidence, an optimistic outlook, and a positive attitude. A child with a high level of self-esteem willingly accepts and responds to compliments and constructive criticism. Self-esteem also involves one's implicit judgement of their ability to cope with life's challenges. An individual with

high self-esteem feels competent, worthy, and appropriate to life. Conversely, an individual who lacks self-esteem feels inappropriate to life and wrong about themselves as a person (Branden, 1987). Self-esteem provides the resilience necessary to resist pressures to succumb to despair or defeat. Branden (1987) described self-esteem as the foundation of ability to respond actively and positively to the opportunities of life.

Like knowledge, self-esteem has no upper limit, an individual cannot have too much self-esteem and it is desirable to have increasing levels of self-esteem. A very high level of self-esteem is distinguishable from an arrogant or boastful person; a bloated sense of oneself is not an example high self-esteem, rather a negative trait such as arrogance or conceit may be indicative of a lack of self-esteem.

An example and report of 'Self-esteem':

Janice shows evidence of good self-esteem.

Janice is confident in her ability to do well and she is optimistic about her success in school. She feels that she is capable of working independently and does not need to rely heavily on her group. Janice recognizes that she has areas in which she needs to improve such as risk-taking. She is willing to express the need for improvement.

(Karen Wilkerson & Petra McAvoy, 1992)

Thoughtful

- recognizes and seeks patterns; inferential thinking; reasoning and critical judgement; curious, reflective, and insightful

Being thoughtful involves an individual's capacity to recognize patterns and make connections, for example recognizing 'story grammar' (the structure of various story genres) and then applying similar patterns to ones own written narratives. Thoughtfulness also involves the ability to think inferentially such as predicting, formulating hypothesis, reasoning, and using critical judgement. Being thoughtful is associated with traits such as curiosity, reflection and intellectual alertness. For instance, thoughtfulness is exemplified by the child who asks insightful questions that have resulted from reflection and introspective thinking. A lack of thoughtfulness may be recognized by a child's over-reliance on rote-learning, or a lack of willingness to go beyond the provided information (Halpern, 1984).

There is unlikely to be an upper limit of the amount of thoughtfulness that is desirable. In other words a person can not be too thoughtful. However, if an inordinate amount of time is consumed for the sake of 'being thoughtful' then naturally forward progress will be blocked. Therefore, an individual can become increasingly thoughtful by learning to think in more varied and advanced ways, but if such thoughtfulness is not applied productively nor conducive to the effective use of time, it lacks utility. Thus, increasing amounts of thoughtfulness are most desirable when applied effectively.

An example and report of a 'Thoughtful' child:

Don is a thoughtful individual.

Don possesses a natural curiosity in Math. During class one day, Don approached me with a "Division Table Grid". This is the opposite of the "Times Table Grid" which all the students have. Don had completed the entire grid, and when he was finished, his numbers were in decimal form! (Kathryn Turnbull, 1992)

Industrious

*~ willing to apply self to task at hand, hardworking,
perseverance and persistence in adversity and initial failures*

An industrious learner is one who is hard-working and who is able to persist when confronted by frustrations that block progress. The industrious child is one who readily applies herself/himself to a given task without stalling. Activities are completed on time and meet all the conditions of the assignment; often, industriousness is exemplified by the child who is willing to go beyond the terms of the assignment. A child who lacks industry has difficulty completing assignments on time and following through when the going gets tough. However, it is important to recognize and distinguish between a lack of industry due to laziness, and a lack of industry that may be due to the child having difficulties in other areas. For example, a child may lack the knowledge base required for the task and is simply unable to successfully apply herself/himself.

There is an upper limit to what is an optimal amount of industrious behaviour if it is appropriately applied. Too much industry is not always the most effective or efficient use of time. For example, it is not desirable when a child who spends exorbitant amounts of time for the sake of neatness, or produces quantity versus quality. An optimal amount of industry is that which is applied efficiently with regards to time and adequately with regards to quality.

An example and report of an 'Industrious' child:

Tim is an industrious learner.

When working independently, or with Miss Horner or Mr. Morsby, Tim stays on task. In his "Personal Reading Program," Tim can often be found 'lost in his book', oblivious to anything going on around him. He has read over eight novels this term and followed through with book conferences on every one. In Math, Tim gets down to work right away. He is happy to be working on a modified program; the number of questions he is required to do is reduced, but the content of his assignments is the same as the rest of the grade fives. (Kathryn Turnbull, 1992).

Generative

~ creative and productive ; the ability to produce unique and original solutions or apply the ideas and solutions of others to achieve a satisfactory end.

'Generative' is the characteristic which refers to an individual's ability to produce unique solutions, or apply the ideas and solution of others in order to accomplish a given task. A generative child is creative and has the ability to generate and apply many different responses to a given question while avoiding solutions relied upon in the past. This ability is sometimes referred to as lateral thinking, it involves idea discovery and thinking around a problem (Halpern, 1984). Generativeness also involves the capacity to identifying and apply the solutions of others, such as in those circumstances where there only exists a single correct answer (true/false, mathematical problems). This capacity is sometimes referred to as 'vertical thinking' or convergent thinking. In essence, the generative child is one who can effectively produce and apply solutions which may, or may not, be unique and creative.

A lack of generativeness may be recognized as a lack of productive behaviour, or a lack of ability or willingness to apply oneself in a creative manner. In some cases, a lack of generativeness may be viewed as an over-dependence on known solutions when creativity is required. There is a limit on the amount of generativeness that that is desirable; for instance, forever generating solutions is likely to get in the way of actually applying the solutions in order to complete a project.

An example and report of a 'Generative' child:

Morris is a very generative individual.

Being generative allows Morris to achieve success in the classroom; this is Morris's strongest characteristic. Morris likes to build 3D objects. One time he approached me with a space ship in hand which was too floppy! Morris suggested making a support for it, so he did. He found a creative solution to a problem. After school one day, Morris voluntarily helped a student with a problem. The student had lost her watch and Morris suggested, "I'm studying to be a detective, I can help you find your watch." He eventually did; the student was delighted. While making our Valentine baskets, Morris came up with a very unique design. Often in Art Morris will take the assignment beyond the boundaries. (Kathryn Turnbull, 1992)

Empathetic

- awareness of, sensitivity to, concern for and willingness to act on behalf of others, collaborative, values the importance of interdependence

Empathy is the awareness of and sensitivity shown towards other individuals as well as the willingness to act on their behalf. Empathy involves courtesy, politeness, consideration and mutual respect towards other individuals. When working or playing in interdependent situations, empathy is often expressed as collaboration and co-operation; it is the capacity to subordinate one's own agenda for the sake of community and to serve the purposes of the group.

A lack of empathy is represented by an individual who is insensitive or lacks compassion for others; such an individual does not recognize or appreciate the importance of interdependence. There may be an upward limit to the amount of empathy that is most conducive to success. On the one hand, an individual can not be too empathetic if empathy is expressed sincerely and applied constructively. However, if one puts herself/himself out for others to an extreme, this may compromise personal goals and purposes in life as well as those in the larger group.

An example and report of an 'Empathetic' child:

Becky is an empathetic learner.

Becky has worked really well in her group this term. When Becky was working on her 'Line Dance Poster', she was willing to take turns in the group. The jobs were divided up evenly and Becky collaborated by giving ideas and suggestions to her peers in addition to constantly encouraging them. During math games on Fridays, Becky is able to organize her group. She is concerned about her classmates and always asks questions like, "Which game should we play", "Who wants to go get the game?" Once under way, Becky often ends up giving her teammates strategies so that they can be successful in the game. Becky knows the difference between right and wrong. She would stick up for any one of her classmates if they were experiencing difficulty on the playground. She is also one of the only students in the class who consistently stays in to offer her assistance in doing odd jobs such as cleaning up paints or filing papers in portfolios. (Kathryn Turnbull, 1992)

Risk-taking

- attempts new ventures with a sense of calculating which distinguishes it from foolhardiness or recklessness

Risk-taking is an individual's willingness to attempt ventures that are new and personally challenging. There is usually a sense of uncertainty experienced in such attempts, otherwise the venture is unlikely to be an actual risk. Within a classroom of students what constitutes risk-taking behaviour is likely to be varied. What is personally risk-taking for one child, such as presenting a report to her/his peers, may not be a risk at all for another child who would revel at a such an opportunity. Risk-taking behaviour seems to be contextually bound and dependent upon self-esteem and experience. For instance, a child may be willing to take a risk in one context, but not in another; such as within ones own family versus within the context of a peer group. a child who has a high level of self-esteem is much more likely to attempt new and personally risky ventures versus a child who lacks self-esteem. Also, it is much more likely that risk-taking behaviour will be evident in situations where the individuals have some level of experience versus no experience at all.

There is an optimal level of risk-taking behaviour that distinguishes it from foolhardiness or recklessness. Common sense would indicate that it would not be prudent to risk vaulting off a spring board, over a high box horse, if one had never attempted a similar move when assisted. Such a risk could be life threatening. An acceptable level of risk-taking behaviour might be determined as that which is calculated to ensure some level of success, *and* that would not result in irreversible damage (physical or psychological) if the venture turned out to be unsuccessful.

An example and report of 'Risk-taking' behaviour:

Leslie is taking more risks.

In her risk taking survey, Leslie identified a couple of situations which make her feel uncomfortable. Things like: dancing in front of people, presenting her work or getting an answer wrong. Leslie has taken big strides lately with her risk taking. She has really focused on it in the last few months. In February, Leslie led roughly two hundred people through "Alabama Swingin" at the school Line Dance. The pay off for Leslie, was a greater feeling of self worth. Leslie had this same feeling after she presented her oral report on "Pluto" to the parents at the tea. She is proud to show her individuality through her sharing, even if her ideas may not be the same as her classmates. (Kathryn Turnbull, 1992)

Strategic

- *planful: makes a plan in order to effect a desired end;*
resourceful: capacity to identify and bring personal,
personnel, and material resources to bear on a problem;
organized: capacity to deploy resources to effect a
satisfactory solution

A strategic individual is one who is able to successfully accomplish a task by being planful or deliberative. A plan of action is envisioned with a focus upon the desired end results before one engages with a task is. A strategic child is also resourceful and organized. Resourcefulness is the capacity to identify personal, personnel, and material resources and bring them to bear on a problem (Johnson, 1991). Being organized involves the ability to select the most effective resources and apply them in an effective and efficient manner. In essence, 'strategicness' involves being planful, resourceful, and organized, which collectively, may be viewed as the ability to identify and execute an efficient means to an end that does not compromise the quality of the final product.

A lack of 'strategicness' might be recognized in the child who is unable to use time effectively because no plan of action was identified before commencing upon a project. Such a child may require several attempts before actually getting a project underway. The child who is unable to keep the desired end in focus or does not have a clear sense of what a task requires also lacks strategicness. It is also possible for a child to be overly strategic. Being too strategic results in getting so organized, and ready to begin, that little time is left for a person to actually apply themselves. Outwardly, such behaviours may be appear as hedging, procrastination, or a hesitancy to 'get down to business'. An optimal level of strategicness may be determined in accordance to *the most efficient and effective use of time*.

An example and report of a Strategic child:

Rosemary is a very strategic learner.

In writing her report on Mars, Rosemary was able to follow the steps of the writing process. She gathered a large number of facts from various resources and had no difficulty categorizing them into groups. Then using her drafting book as a resource, Rosemary drafted her report. In doing her 'Seeing Stars Box', Rosemary was very organized. She made a plan and knew what to do; she fulfilled the criteria by reading the directions, in addition to adding extras to the decoration of her box and completing the project well before the due date. Rosemary's resourcefulness is a valued asset when working in a group. She is adept at organizing her peers when doing a challenging task; she understands the objective involved and how to reach it, efficiently and effectively. (Kathryn Turnbull, 1992)

Chapter 4: Methods

Synopsis

The methods of this study were effected in order to address the research question:

"To what extent did the Learner Characteristics Framework uphold a process of evaluation that was coherent, sustainable and valid ?"

During one reporting period, January to April, the Learner Characteristics Framework was implemented in two elementary classrooms which involved two teachers who team taught a grade 3/4 class, and one teacher who taught a grade 4/5 class. At the end of this reporting period, three sources of data were collected: student reports, parent surveys, and teacher questionnaires. The methods were designed not only for the purposes of carrying out this study, but also to promote the *success* of the Framework within the teachers classrooms. Specifically, the methods were designed in order to satisfy, as much as possible, the criteria of 'coherence' and 'sustainable'. Following the methodological principles guiding this study, the methods are detailed below under the headings of: The Participants, The Procedures, and The Data.

Methodological Principles

1. Children should not be involved in a study unless parental consent has been granted on their behalf. Records, files, and other documents should only be copied with written consent or permission (Walker, 1985).
2. The researcher should have a clear sense of focus and direction at the outset of the study; however, the method must accommodate for flexibility in pursuing and satisfying the research questions and purposes. Such changes should be acknowledged and documented (Guba, 1986).
3. A representative sampling of the data should be contained within the report of the study and the entire data should be made available upon the request of other researchers (LeCompte & Goetz, 1982).
4. In keeping with axioms of Action Research, the study's participants (teachers and researcher) undertake to collaborate with one-another in their own separate institutional and cultural contexts to create the possibility of more broadly informing the common project, as well as to create the material and political conditions necessary to sustain the common project and its work (McTaggart, 1991).
5. Fostering a collective and critical reflection on practice amongst participants results in new educational knowledge and new pedagogical directions (McTaggart, 1991).

The Participants

The participants in this study involved the teachers in two classrooms, the students that they taught, and the parents of these students. Direct contact and involvement of the teachers was maintained through ongoing discussions and interviews; the teachers were the primary participants. The researcher had no direct contact with the students and the parents; indirect contact was accessed through the teachers.

Selection

The researcher did not actively seek out the teachers to be involved in this study, rather it was the teachers who selected the study. After an informal presentation which introduced the Learner Characteristics, the rationale for their use, and the potential processes by which they could be implemented, the teachers approached the researcher and requested to become involved in the study. Thus it was upon a voluntary basis that the teachers' involvement and suitability for the study were established.

Three additional factors contributed to the suitability of the teachers. First, the teachers agreed that the eight Learner Characteristics represented those traits, or qualities, that they valued highly and wished to develop in their students. This agreement was a critical contingency upon which to assess the teachers' suitability: *valuing* the Learner Characteristics was prerequisite to the act of *evaluating* their students on the same basis, and therefore also prerequisite to upholding 'coherence'. Secondly, the teachers expressed the desire to improve upon their current methods of assessment, evaluation, and reporting. For instance, it was indicated that a more 'focused and specified' means of evaluation was desired. Thirdly, all three teachers were accustomed to the use of portfolio assessment and favored an anecdotal reporting format; these forms of assessment and reporting were deemed as those most appropriate to use in conjunction with the Learner Characteristics.

These three reasons, as well as the fact that the teachers volunteered, were significant factors which confirmed the teachers' suitability for this study.

Description

As noted earlier, the Learner Characteristics Framework was implemented in two classrooms. One classroom, located in the interior of B.C., was team-taught. This was a class of 26 grade 3/4 children who represented a typical classroom of children; there was an normal range of abilities and dispositions apparent. The teachers, Karen and Petra, had been teaching together for several years; their theoretical and practical orientation were very compatible. The other classroom, located in Sooke, B.C., also represented a typical group of students, this was a class of 27 grade 4/5 children who were taught by Kathryn. A presentation of the similarities and differences that existed between the two classrooms facilitates a cognizant interpretation of the results, and provides a means of describing the salient features of the teachers and their classrooms.

Conversations with the teachers prior to the study determined that their philosophical orientation and teaching approach were aligned with the Year 2000 Program, thus there were quite a few similarities between the two classrooms. The students in both classrooms represented a fairly wide range of abilities and aptitudes. The variations in individual learning styles and competencies were accepted and accommodated by the teachers in both classrooms. Co-operative learning, opportunities for self-evaluation, and giving students a fairly large degree of independence and responsibility for their own learning were practices common to both classrooms. In general, the teaching approaches used by the teachers in both classrooms were very conducive to successfully implementing the Learner Characteristics Framework. In order for the students to develop many of the characteristics they needed to be provided with co-operative group opportunities to construct their own understandings in situations where they would collectively 'sink or

swim'. Responsibility for learning was granted to the students, enabling them to realize 'learning payoffs', or how to apply themselves more effectively in the future.

Another similarity shared by the teachers was the rapport had been established with the parents through ongoing communication. Kathryn as well as Karen and Petra appeared to have very open communication with parents. This feature contributed positively to parents granting their consent and providing their input. An overview of the study was sent home to the parents in a letter which described the study, requested their consent, and asked for their input regarding which characteristics they would like their child to be evaluated on. The parents responded positively; in Karen's and Petra's classroom 22/26 parents gave their consent, and 27/27 parents in Kathryn's class gave their consent. The letter, which made distinct provisions for the privacy of the children and the continuation of normal classroom procedures, is contained in Appendix 1.

The use of portfolio assessment was a typical practice common to both classrooms. The teachers in both classrooms were very familiar with collecting actual evidence of an individual child's learning, and furthermore they allowed the students to play a role in the selection of the work to be included in the portfolios. The similarities that were evident between the two classrooms and the teachers facilitated a smooth and consistent implementation of the Learner Characteristics Framework. Indeed, many suggestions for the implementation and application of the Framework made by one of the teachers, were valued and accommodated by the others.

The differences represented by the two classrooms were extrinsically based: they were differences represented at the administrative, or school-based level, rather than differences that were significant at the classroom level. Karen and Petra's school was very receptive and responsive to the BC Year 2000 recommendations with regards to evaluation

and reporting, namely those related to anecdotal reporting. For instance, Karen and Petra had been using an anecdotal reporting format for the past three years and had provided in-service on anecdotal reporting for their district. In Kathryn's school however, recommendations for anecdotal reporting were only in the infant stage, and the changes being advocated by the Year 2000 program were regarded with skepticism and met with resistance. Indeed, consent for Kathryn to use anecdotal reporting was only granted conditionally - she also had to ensure that she provided a graded report in addition to the Learner Characteristics report. So, with regards to both experience writing anecdotal reports and administrative support, Kathryn was at a disadvantage. It was in these capacities that the teachers and the contexts in which they taught, differed.

The Procedure

This was a qualitative research project which actively sought the interactive involvement of the teachers (McTaggart, 1990). The teachers collaborated with the researcher, and indirectly with one another, to determine how this evaluation process would be implemented and sustained within their classrooms. The researcher's role was to develop the directions, itineraries, and guidelines that the study would follow; however, the teachers did not merely carry out these directives, they often provided astute suggestions and helped to refine the implementation and applications of the process. Each step taken, was done so by first actively seeking the teachers' consensus and input; in doing so, the procedures and guidelines established for the implementation of the framework were based upon the collective experience and insight of the teachers and researcher. The itinerary below outlines the procedures and dates followed in order to operationalize the Learner Characteristics Framework and to satisfy the data collection needs of this study.

ITINERARY

PROCEDURE

DATE

1. Purposes and directions of the study

Before JAN. 6, '92

Participant teachers and the researcher discussed the purposes and direction of this study as it relates to what is expected of the teachers. The following areas were addressed:

The Criteria: coherent, valid, sustainable

The Characteristics

The nine characteristics in detail

Using the characteristics

Instruction

Assessment

Evaluation

Reporting

The Study

Communication

Responsibilities and time-lines (as below)

Maintaining anonymity of subjects

(these three items are embedded in the remaining procedures)

2. On going communication

JAN. 6 -

Researcher and teachers maintained ongoing telephone contact on a bi-weekly basis (on Mondays)

The researcher summarized conversations and faxed these 'conference-dialogues' to the teachers in order to facilitate a three-way communication amongst the participants so that ideas and experiences could be shared. The teachers were requested to indicate whether or not these summaries represented what they had communicated in terms of their perceptions and their concerns (see Appendix 1: Conference Dialogues).

The teachers maintained a log book to record dates, their perceptions, and notes pertaining to implementation of the Framework.

3. Communicating with Parents

JAN. 13, '92

By letter, teachers informed the parents of the study and requested their consent (see Appendix 2: Parent Letter). The Characteristics were described to the parents as a means evaluation that would be used in the classroom. The parents were invited to respond with any questions or concerns that they had.

Parents identified two of the six procedural characteristics that they wish to have their child evaluated on.

4. Introduction of the Characteristics

The teachers introduced and began to use the characteristics as a part of instruction.

The teachers maintained ongoing instruction, assessment, evaluation, and informal reporting.

5. Writing Student Reports

MAR. 3 - 13

Researcher and teachers collaborated on guidelines and formatting for writing student reports

Teachers wrote summative reports and submitted copies to the researcher

Parent questionnaires were submitted with the report cards

6. Teacher Questionnaires

APR. 9, '92

The teachers were asked to read the questionnaire. The researcher then ensured that the questionnaire was clearly understood by discussing the questionnaire individually with each teacher. The teachers responded to the questionnaire and returned it at the designated time.

All data was submitted to the researcher:

teacher journals, assessment notes, parent surveys, teacher questionnaires, and any other pertinent information the teachers wished to include.

GUIDELINES

To implement the Learner Characteristics Framework in a coherent and sustainable manner, the following guidelines were suggested for 'instruction', 'assessment', and 'reporting'. These guidelines were developed by the researcher and corroborated by the teachers, .

Instruction

The following instructional actions and objectives were outlined in order to uphold the logical connection between 'what was valued' and *instruction*::

1. The students should accomplish the following three objectives:

- be able to define each of the Characteristics
- be able to give behavioral examples of the Characteristics
- be able to identify their own strengths and areas for improvement in terms of the Characteristics

The teachers indicated that the students accomplished these objectives.

2. Definitions and written examples of the characteristics should be clearly visible to the students at all times.

The students and teachers produced posters of the characteristics which were displayed around the room.

3. The teachers should verbalize, talk about, and make reference to the characteristics as much as possible when pertinent and relevant.

For example if a situation on the playground involved a conflict, then a class discussion regarding 'empathy', 'risk-taking', or 'generativeness' may have ensued.

The teachers indicated that they discussed and applied the Characteristics in many different settings.

4. As many opportunities as possible should be provided for the students so that the characteristics may be manifested and developed.

This did not always occur naturally and the teachers discovered that it was necessary to make such opportunities. The teachers and researcher brainstormed ways and means of achieving this with satisfactory results. Often students were given less direction and wider parameters for assignments and learning activities.

Assessment

In order to facilitate the coherent assessment upon the basis of the characteristics, the following guidelines were followed:

1. The form below was used as a direct means of identifying and recording behaviors that corresponded to the characteristics.

2. Assessment would be conducted on a daily basis in a manner that best suited each teacher. For instance, Kathryn collected and recorded evidence several times throughout the day, and Karen and Petra indicated that they sat down at the end of the day, reflected and noted significant behaviours that their students had demonstrated throughout the day.
3. The teachers would look for evidence of the characteristics beyond the classroom (for example on field trips, during recess, at assemblies, etc.)
4. Students were encouraged and provided with opportunities to evaluate both themselves and their peers on the basis of the characteristics. Peer evaluations were dealt with sensitively and monitored carefully so that students would evaluate their peers fairly.
6. Students were given open access to their own assessment information that their teachers and peers had collected and recorded.
7. Class recording sheets were used as a means of 'keeping track' of which students were being assessed most, or least, frequently and which characteristics were being demonstrated most often. This allowed teachers to ensure that the assessment of particular students was not being neglected. The recording sheet also permitted them to determine significant, class-wide trends, for example, an inordinate amount of strategicness or a deficiency of industriousness.

Reporting

Below are the guidelines that were faxed to the teachers during the study in March. The teachers were appreciative of the guidelines and discussed them with the researcher; the teachers identified how the guidelines would be accommodated to their own individual reporting styles.

REPORT CARDS

It is important in terms of this study that there is some continuity (amongst all three of you as teacher-researchers) between your report cards, therefore I have outlined some guidelines and suggestions for writing your reports. I hope that these are helpful to you, and please recognize that there is flexibility within these parameters to communicate and describe your students in a way that is most meaningful to you. Please call if you have any questions.

Guidelines for writing reports

1. Be succinct
Communicate your evaluative judgements by getting right to the point.
2. Support evaluative judgements with specific examples/evidence of the child's demonstrated behavior.
3. Report on what is most relevant to the individual child.
It is an overwhelming task to report on every aspect of the curriculum for every child; limit what your report to what is most pertinent to each child.
4. Offer areas to focus on and future goals to be addressed.
5. Maintain a positive and professional voice.
6. Avoid jargon.
(This does not mean not using the terminology of the Characteristics).

Format Suggestions:

There should be two components to your reports cards as outlined below in parts I and II.

Part I: General Summary Evaluative Statements

- 4-6 evaluative statements that describe relevant aspects of child's progress
- Each statement should be supported by specific examples - this is the evidence that substantiates evaluative statements above.
- The examples provide a means of intersecting and describing:
 - the child
 - the characteristics
 - the curriculum

SAMPLE

John's willingness to take risks this term has had a direct and positive influence on both his knowledge base and his self-esteem (Evaluative Statement).

In social studies, John decided to do a presentation on India. As one source of information he interviewed a family acquaintance who had lived in India. John said that this was a risk for him because he finds it difficult to talk to grownups and he had only met this man once before. This turned out to be a very successful venture, John learned and uniquely presented many interesting facts about India; his interviewee loaned John some slides which John learned how to show. Since this experience John's confidence has blossomed and he is eager to try new ways of representing his learning. (Supporting Example).

PART II - Teacher: Areas of focus and future goals

This section is just as the heading suggests, it provides the parent and child with information regarding areas that need to be focused on. This may be communicated in terms of the characteristics and/or the curriculum. For some children this section provides opportunity to communicate concerns, for others it may be a place to indicate how even greater strengths in specific areas would further enhance learning and success.

SAMPLE:

Areas to Focus On

John will be focusing on becoming more strategic next term in order to become more efficient and playful with his projects. Although his final products are to be highly commended, John often takes hours and several trial runs in completing them. Taking more time during the planning session of his writing and projects will help John become more effective and put his resources (time especially) more effectively to use.

Goals for next term:

- *Continue working on self-esteem: John needs continued positive support as he is still somewhat of a worrier and perfectionist.*
- *We will also work on John becoming more strategic by helping him to brainstorm possible resources and to organize these resources so that he works both efficiently and effectively.*

Report Card Package to Parents

This should include the following:

- * A covering letter
This letter describes the curricular areas that you have dealt with for this reporting term. You may also want to note the relevancy and purposes of what is included (see below) with the child's report card. The purpose of this letter is to save you from describing the curriculum in each child's report and allow you to allocate your time to describing the child.
- * The chart of the characteristics
- * Parent Questionnaire
I will send this to you on March 5. Please emphasize to the parents that it must be completed and returned by Friday, March 13.
- * The Child's Report

The Data

The data collected for this study was organized into the following two categories, the primary data and the secondary data.

Primary Data

- 53 Student reports
(Kathryn 27; Karen/Petra 26)
- 31 Parent surveys
(Kathryn 20; Karen/Petra 11)
- 3 Teacher questionnaires

Secondary Data

- Conference dialogues
- Teacher log books
- Student surveys
 Kathryn's class
- Student self-evaluations
- Teachers' assessment notes
- Class recording sheets
- Samples of student work

What follows is a brief discussion of the relevance of the primary data to the criteria of coherence, sustainable, and validity. Then the primary data will be discussed and a sample of a student report, parent survey, and teacher questionnaire will be provided. The secondary data, which was used to facilitate an interpretation of the primary data, will not be elaborated upon here, but is more aptly described when referred to in the 'analysis of the data' in the next chapter.

The Primary Data

The function or purpose of this study was to determine the extent to which the Learner Characteristics Framework satisfied the criteria of coherence, sustainable, and validity. It was the *function* of the study that indicated the *form* the primary data should take. For instance, evidence of coherency could be accessed by considering the students' reports, and the teachers' accounts of using the framework which could be accessed through a questionnaire. The student reports would indicate if there was coherency between 'what was valued' (the characteristics) and what was 'evaluated and reported': did the teachers use the characteristics to report student progress? It was also necessary to analyze the reports to ensure that the behaviors teachers reported corresponded appropriately to the characteristics. For example, was 'thoughtful' appropriately substantiated with behaviours such as

transferring knowledge or *asking insightful questions*, or were curriculum bound behaviours, such as *spelling* or *multiplying* assigned to the characteristics? Coherency could also be determined on the basis of how the teachers described various aspects of their instructional-evaluative process: did their descriptions make evident connections between goals, assessment, evaluation, and reporting?

The criteria 'sustainable' applied solely to the teachers; were they able to reasonably manage the instructional-evaluative process based upon the Learner Characteristics Framework in terms of time and organizational ease? To access this information it was necessary to consult the teachers which was achieved through the provision of the teacher questionnaires.

In order to determine the validity of the Learner Characteristics Framework it was necessary to consult all three sources of data: the student reports, the teacher questionnaire, and the parent surveys. The 'traits of valid evaluative judgements' could be determined by analyzing the student reports. To determine whether or not these reports were deemed as valid in the minds of the parents, their perceptions were accessed via the parent surveys. Finally, to determine if the teachers found the Framework to be a relevant and meaningful way of understanding and supporting their students the teacher questionnaire was consulted.

The Student Reports

Kathryn wrote 27 student reports based upon the Learner Characteristics, Karen and Petra wrote 22 out of 26 reports based upon the Learner Characteristics. The other four reports in Karen and Petra's class were not based upon the Learner Characteristics because the parents requested to not be involved in the study. In general, the student reports were consistent in form and style in both classrooms. Figure 7 contains a sample of the reports written by the teachers in each classroom. These samples show how the teachers followed the reporting guidelines yet were able to adapt these guidelines to suit their own individual reporting styles. Kathryn reported on four characteristics and *also* embedded a discussion of 'knowledge' and 'self-esteem'; in essence she reported on six characteristics for each child. She reported on the two characteristics selected by the parents, two other characteristics most relevant to the child's success or lack of success, as well as 'knowledge' and 'self-esteem'. Karen and Petra reported on four characteristics: for every child they reported on 'knowledge' and 'self-esteem', as well as the two characteristics chosen by the parents. Because the original letter to the parents introducing the study indicated that the teachers would "automatically report on 'knowledge' and 'self-esteem'", Karen and Petra felt that they should be very specific about providing this information on the reports. The average length of Kathryn's reports was approximately 600 words/report, and 300 words/report for Karen and Petra.

To indicate the child's strengths and 'areas for improvement', Kathryn used symbols on her reports: '+' indicated a strength, and '*' indicated an area for improvement. She wanted to be very clear and specific about communicating this information, yet did not want to come across as negative in the reports; this was Kathryn's way of accommodating these conditions. Karen and Petra did not make explicit which characteristics were a strength or a weakness for a child because they were concerned about the reports having negative overtones; however, strengths and weaknesses were implied to some extent when the characteristics were elaborated upon within the reports.

Figure 7: Sample Student Reports from Each Classroom

Kathryn's report:

Caty

Second Term - Grade 5

+ Indicates area of strength

* Indicates area needing focus

+Caty is an industrious learner.

In Math, Language Arts, Art, Science and Social Studies, Caty always gets down to work without stalling. In Math, Caty applies herself to the task at hand and persists, even when it's hard for her, until the assignment is done. However, I would like to see her finish up all her corrections, on a more regular basis. In Art, Caty is hard working. When she is involved in a group activity, Caty gets her peers moving in the right direction. The final product always reflects time used wisely. During her personal reading program, Caty can often be found "lost in her book, oblivious to anything going on around her.

+Caty is an empathetic learner.

Caty's empathetic behavior definitely adds to the positive learning atmosphere in the class. Caty demonstrates a concern for others, like I have never seen before. She treats all of her classmates with courtesy and kindness on the playground and in the classroom. She is a valued group member during math games. Caty knows how to take turns; she allows her peers to add suggestions and ideas and never say "No", one of the important rules of group work. In Art, Caty knows how to collaborate. She is adept at listening to every one's ideas in the group and then giving all the group members the opportunity to put their ideas to work.

+ Caty is a thoughtful and generative individual.

Caty possesses a natural curiosity for everything she does. Caty was an important member of our "Star Trek Study". She put a lot of thought into her responses and backed them up with good examples. Caty is adept at self evaluation. When doing her learning Log, Caty is able to synthesize all of her learning into clear, well thought out statements. When writing to Mrs. Popham, the Lung Assoc. Rep., Caty asked, "How bad would your baby be if you smoked when you were pregnant?" She is always asking questions that challenge her thinking. When studying a story, Caty is improving at reading between the lines. She is finding it easier to get into the minds of the characters to understand what they are thinking and feeling. Caty finished all of her projects this term. She added a lot of creative flare to each and every one. Caty's "Chopper" role play was unique. The class enjoyed hearing about her day as a beaver. Caty added extras to her "Seeing Star Box" too. Caty's oral presentation of her "Stars" report was generative. She made up some jingles to go along with her constellations: "It's a plane, it's a..... It's Pegasus!" Caty's final story map for "A Stranger Came Ashore" reflected a lot of time and thought. The way in which she presented the events, was creative.

*** Caty is a strategic learner.**

This is the only area Caty could put a little more effort into. By stretching her resourcefulness, Caty could take her learning to areas which really interest her. Visiting the library, writing letters or watching a show on the Knowledge Network, would help Caty look for answers she has always wondered about. By making a plan and using her goal setting sheet in conjunction with her homework book, Caty could be more responsible for what she learns. Being strategic might help her to build upon her thoughtful and generative ways!

Goals For Next Term

1. **Be strategic in your reading:** Caty, set a goal for how many and what type of books you're going to read during your personal reading time. Then, follow through by doing a book conference.
2. **Continue being generative:** Caty, try to come up with new ways in which to challenge yourself. Be strategic and make a plan.

Figure 7 (cont.): Sample Student Reports from Each Classroom

Karen and Petra's report:

<p>Intermediate Progress Report</p> <p><u>Jane</u></p> <p><u>Self-esteem</u></p> <p>Jane shows evidence of good self-esteem. She is confident in her ability to do well and she is optimistic about her success in school. she feels that she is capable of working independently and does not need to rely heavily on her group. By playing the piano during radio show she exhibited self-confidence. Jane recognizes that she has areas in which she needs to improve such as risk-taking. She is willing to express the need for improvement.</p> <p><u>Industrious</u></p> <p>When Jane takes on a task she works at it to completion. This is particularly evident in math when she works non-stop to complete her assignments and homework. she is able to get down to work without hesitation once the task has been assigned.</p> <p><u>Risk-taking</u></p> <p>Jane feels that she has not taken many risks this term. She says, "I'll have to try harder". We feel that she is taking risks occasionally. She expressed a concern about a fellow student's disruptive talking in her journal, knowing that it would be read by us and perhaps acted on as well. She also admitted to guessing the answer to some questions on the math test and realizing that review was in order.</p> <p><u>Knowledge</u></p> <p>Jane has good basic knowledge in math . She benefits from occasional review of the concepts covered each term and needs to recall multiplication facts to 12 more quickly. She admits to working too quickly and needs to slow down to avoid careless errors. Jane continues to read a variety of novels. Her favourites were Nancy Drew Mysteries and the Babysitter's Club Series. She is beginning to support her opinions about what she has read with evidence from her stories. Jane continues to enjoy writing and has published three books so far. Her knowledge about water colour painting is increasing and she is experimenting with different techniques. Art is one of her favourite subjects.</p> <p><u>Focus for next term:</u></p> <ul style="list-style-type: none"> - continue to use handwriting on a daily basis - become more fluent in times tables to 12 - take risks by trying new things
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Parent Surveys

The purpose of the parent survey was to determine if the students' reports were perceived as valid in the minds of the parents. That is, did the reports based upon the Learner Characteristics provide parents with a clear understanding of their child's learning progress such that the reports engendered certainty and provided utility?

The parent survey were sent home with the students' reports along with a chart of the characteristics so that if necessary the parents could consult the chart to clarify their understanding about what each characteristic meant. The survey sent home to the parents communicated the following information and questions. There was ample space provided for the parents' responses.

Dear Parents,

During this last term we have been involved in a study that is seeking to improve the way your child is evaluated and his/her progress is reported. In short, the purpose of these changes is to make the evaluation and reporting process more meaningful for you, your child and myself. Your thoughts and perceptions are a very important aspect of understanding the significance of these changes. Your considered responses to the questions below would be greatly valued. Thank you for sharing your insights.

PARENT SURVEY

1. What did you think of your child's report this term?
2. Did you feel your child's report was adequate and meaningful? Please comment.
3. How does this report compare to other reports you are familiar with?
4. Would you like your child's progress to be reported in this manner again (using the characteristics of a successful learner)?

There was a combined total of 31 parents who responded to survey out of the 49 parents who consented to have their child involved in the study. The parents were asked to return the surveys on Friday, March 13, the last day before Spring Break, which gave them less than a week to respond. Only about half of the 31 surveys were returned at this time. The teachers expended a considerable amount of effort in order to have the remaining

surveys returned. The timing of the Spring Break holiday may have accounted for the other surveys that were not returned.

The parents' answers varied in length from one-word answers (typically for question items 2 and 4) to detailed and well elaborated answers. Below is an example of a parent response to the survey in Kathryn's class; a fuller representation of the corpus of parent surveys is provided in detail in the next chapter.

PARENT RESPONSE

1. What did you think of your child's report this term ?

I am very pleased with Lana's report. I'm very happy to see that she has settled into the school, made friends, and feels comfortable with her teacher, whom I'm very impressed with. Lana has made great strides emotionally as well as academically and I credit the supportive environment she finds at John Muir. I quite like the style of the report - it is much more relevant than a group of letters. I also like that Lana has the opportunity to rate herself and take part in her own assessment (i.e.) interviews. Great

2. Did you feel your child's report was adequate and meaningful? Please comment.

Yes - I quite enjoyed the report and it was quite meaningful. It gave me a clear picture of what Lana is doing and learning and I like what I'm reading about her.

3. How does this report compare to other reports you are familiar with?

I'm familiar with more standard reports with the usual A,B, etc. I prefer this style of report where there is much more focus on what the student is doing (i.e.-accomplishments - emotionally etc..) rather than on just marks. I feel the teacher gains a good insight with the student.

4. Would you like your child's progress to be reported in this manner again (using the characteristics of a successful learner) ?

Yes, I liked the style of the report and the focus on the various characteristics of a learner.

(Parent from Kathryn Turnbull's class)

Teacher Questionnaires

The purpose of the teacher questionnaire was to access the general perceptions of the teachers regarding the use of the Learner Characteristics Framework, as well as to determine their specific perceptions with regards to coherence, sustainability, and validity. The teachers were provided with ample space to address the following items on the questionnaire:

TEACHER QUESTIONNAIRE	
All of the questions below refer to the Characteristics of a Successful Learner as a framework for the process of evaluation (assessment, evaluation, and reporting). Please respond to these questions by elaborating upon your perceptions and providing examples where applicable. Your response is sincerely appreciated - thank you !	
1.	What was the most significant impact, if any, that the use of this framework had in your classroom this term ?
2.	Did you find this framework to be a meaningful way to assess and evaluate your students ? If so, how ?
3.	Did the framework help you to make instructional decisions ? If so, how ?
4.	Do you feel the framework allowed you to understand your students any differently ? If so, how ?
5.	What are your perceptions regarding your students' response to this framework ?
6.	What impact did the framework have on reporting ?
7.	What are your perceptions regarding the parents' response to this framework ?
8.	To what extent, if any, will you use this approach to evaluation next term ?
9.	If you do intend to use the Characteristics of a Successful Learner as a framework, will you adapt it in any significant manner ? If so, how ?
10.	How sustainable was using this framework for assessment and evaluation on a day to day basis ? Please comment on the time required to sustain this process in comparison to evaluation processes you have used in the past.
11.	Approximately how much time did you spend writing each student's report ? How sustainable was reporting using this framework in comparison to reporting procedures you have used in the past ?
12.	Did this framework help you to assess, evaluate and report in a manner that was consistent to what you believe to be most important in the development of your students ?
13.	Did the framework have any positive and/or negative effects on instruction ?
14.	Did the framework have any positive and/or negative effects on assessment ?
15.	Did the framework have any positive and/or negative effects on evaluation ?
16.	Did the framework have any positive and/or negative effects on reporting ?

The questionnaire was administered after the teachers had written the reports and had received many of the parent responses. The questionnaire was given to the teachers to first read over to make sure they understood the intent of the questions. Then before the teachers responded to the questionnaire the researcher asked them, individually by

telephone, if each question was clear and the intended meaning understood. The teachers had no difficulties in understanding the questions. The directions given to the teachers, apart from those on the questionnaire, were to be sure to relay their actual feelings and insights apart from what they knew to be the agenda of the study and the researcher. In addition, Karen and Petra were specifically asked not to collaborate in their responses on the questionnaire. This was easily facilitated because they each responded to the questionnaire over spring break. Having Karen and Petra answer the questionnaire on an individual basis allowed the researcher to access three viewpoints on the Learner Characteristics Framework rather than just two. The teachers had approximately two weeks to respond to the questionnaire which was then mailed to the researcher along with all remaining data. Below is a sample of the teachers responses to the first three questions:

1. **What was the most significant impact, if any, that the use of this framework had in your classroom this term ?**

KATHRYN

Our learning became very meaningful. Everything we did had an additional purpose. i.e.. "I want to see how thoughtful you can be by thinking about your ideas with your group." The children were much more involved in their learning. They took their responsibility seriously. They were concerned about the development of the characteristics in themselves. Thus, they became adept at evaluating how they learn.

KAREN

I think it was the fact that the students were more aware of the qualities we valued and the qualities that their parents were interested in hearing about. They might, therefore, be encouraged to attempt to become more risk-taking, for example.

PETRA

- the children learned about characteristics that add to success as a learner, how they add to this success and how they exhibit those characteristics

2. Did you find this framework to be a meaningful way to assess and evaluate your students ? If so, how ?

KATHY

Very meaningful. It gave me a lot of insight into my students. It helped to identify why the successful learners were successful and why other children were not. I found that most students had one overriding characteristic which handicapped them, it was very clear which ones they were: strategic, thoughtful, etc.

KAREN

I did. I value all the characteristics we used and felt comfortable in encouraging the children to value them. I noticed however that the knowledge section was downplayed in comparison to my past evaluations - perhaps because there were so many aspects of the child I was looking at.

PETRA

- it was meaningful in the sense that I came to know my students better in more areas than just academic, simply because I had to look for evidence to support the characteristics

3. Did the framework help you to make instructional decisions ? If so, how ?

KATHY

In order for the characteristics, in each child, to develop, I had to change my method of instruction to a much more student centered approach. I had to let go of my 'control' over the students in order to let them explore and discover on their own. I was no longer on 'stage', so I had ample time to sit back and observe each child in different situations.

KAREN

It helped me to realize that if I wanted the students to display these characteristics I have to provide the types of activities which enabled them to display them. I also integrated 'talk' about these characteristics more consistently with instruction therefore, tying instruction and evaluation more closely.

PETRA

- yes - in the sense that I had to think about setting up situations in which the kids could demonstrate certain characteristics

To summarize, this chapter presented the nature of the participants, outlined the procedures followed, and provided a sample and brief discussion of the primary data. It was acknowledged that the Learner Characteristic Framework was implemented in order to successfully uphold the criteria of coherence and sustainable. Specifically, coherency was predisposed by the 'guidelines for instruction, assessment, and reporting'; the criteria of sustainable was predisposed by the 'guidelines for reporting'. As this was a participatory, interactive study, the involvement of the teachers was actively sought; the implementation of Framework was responsive to their suggestions. In the next chapter, the data will be analyzed and presented more fully in determining the extent to which the three criteria, coherent, sustainable and valid, were satisfied.

Chapter 5: Analysis and Discussion

This chapter presents an *analysis* as well a *discussion* of each criteria. Specifically, the purpose here was to determine the extent to which the Learner Characteristics Framework satisfied the criteria of coherence, sustainable, and valid. Each of the criteria are addressed individually, and where relevant, a quantification of the results is provided, but primarily, what follows is an elaboration which attempts to fully convey the meanings contained within the data as applied to the each of the criteria. The process of analysis is detailed for each of the criteria which are presented in three separate sections: Analysis of Coherence, Analysis of Sustainable, and Analysis of Validity.

Acknowledgement of the Researchers Biases

Intentionality: It was the intention of the researcher to implement the Learner Characteristics Framework as successfully as possible, just as it would be done if the Framework were to be implemented authentically within the educational community; this undoubtedly predisposed the framework towards the researchers intentions.

Student Evaluation: The researcher is biased towards descriptive and qualitative evaluation rather than measurement and empirically based methods of evaluation.

Research reactivity: The teachers were well aware of the intentions and purposes of this study which predisposed the Learner Characteristics Framework to satisfy the criteria. For example, in response to one question on the Teacher Questionnaire Karen noted:

10. How sustainable was using this framework for assessment and evaluation on a day to day basis ? Please comment on the time required to sustain this process in comparison to evaluation processes you have used in the past.

I also think I may have been more faithful about it (using the Learner Characteristics Framework) because I was working with someone (Sue) who expected feedback and information.

Generalizability: The participants volunteered to be involved in the study which contributed to the desired and evident results; naturally the successful application of the Learner Characteristics Framework may be dependent upon educators who are as willing and who have a similar theoretical orientation to evaluation.

Analysis of Coherence

Were the teachers able to successfully uphold a logical connection between goals, assessment, evaluation, and reporting by using Learner Characteristics as a frame of reference for evaluation ? To a degree this question is somewhat arbitrary because *the way* the CSL Framework was implemented predisposed the educational-evaluative process to be coherent: the teachers agreed that the characteristics represented what they valued as goals and that the characteristics would be incorporated into instruction, assessment, and reporting practices. Therefore the data were **checked** to show that the coherency that was anticipated was indeed present. In order to check for coherency the teacher questionnaires and student reports were analyzed.

Teacher Questionnaires

The teachers' responses on the questionnaire were analyzed in order to check for coherency. As Karen/Petra taught in the same class and offered a single educational program, their responses were combined to represent one voice. Both Kathryn and Karen/Petra made a number of responses on the questionnaire which signalled coherency - that is they expressed *linkages* between what they valued and what they did in their classrooms. For example the following responses to question number three clearly express a link between what was valued (goals) and instruction:

3. Did the framework help you to make instructional decisions ? If so how?

In order for the characteristics, in each child, to develop, I had to change my method of instruction to a much more student centered approach. (Kathryn)

It helped me to realize that if I wanted the students to display these characteristics I would have to provide the types of activities which enabled them to display them. I also integrated 'talk' about these characteristics more consistently with instruction therefore, tying instruction and evaluation more closely.

Yes - in the sense that I had to think about setting up situations in which the kids could demonstrate certain characteristics (Karen/Petra)

Often the linkages that teachers expressed were readily identifiable and could be categorized according to the type of linkage they represented: Goals and Instruction, Goals and Assessment, Goals and Evaluation, Goals and Reporting (See below Figure 8: Teacher Comments Indicating Coherence). However, in some of the responses, the vocabulary used by the teachers made these linkages less obvious. Therefore all the vocabulary used by the teachers that made an association to a given category, or implied one, was underlined. In the category of Goals and Instruction, for example, 'learning/learned' and 'they also understood' imply the results of instruction; 'setting up situations', 'discussed them (the characteristics)', and 'integrated talk' are directly associated with instruction, therefore have been underlined. Similarly, the vocabulary associated with each category has been underlined in order to clarify the particular aspect of a teacher's response that made it possible to infer a linkage signalling coherency.

After analyzing all responses on the questionnaire, 23 responses were identified that made linkages between the goals and other aspects of the educative-evaluative process. These are contained in Figure 8: Teacher Comments Indicating Coherence, on the following page. Often, the nature of the questions likely prompted these linkages; however, there was a potential for these linkages to either signal 'coherency' or a 'lack of coherency'. Of the 23 identified responses, 20 indicated that coherency was evident and three indicated a lack of coherency (responses that indicate a lack of coherency have been italicized in their respective categories).

FIGURE 8: TEACHER COMMENTS INDICATING COHERENCE

Goals and Instruction

1. *What was the most significant impact, if any that the use of this framework had in your classroom this term?*
 - Our learning became very meaningful. Everything we did had an additional purpose. i.e.. "I want to see how thoughtful you can be by thinking about your ideas with your group." ... they became adept at evaluating how they learn. (Kathy)
 - I think it was the fact that they students were more aware of the qualities we valued and the qualities that their parents were interested in hearing about. They might, therefore, be encouraged to attempt to become more risk-taking, for example. The children learned about characteristics that add to success as a learner (Karen/Petra)
2. *Did you find this framework to be a meaningful way to assess and evaluate your students? If so, how?*
 - I value all the characteristics we used and felt comfortable in encouraging the children to value them. (Karen/Petra)
3. *Did the framework help you to make instructional decisions? If so how?*
 - In order for the characteristics, in each child, to develop, I had to change my method of instruction to a much more student centered approach. I had to let go of my 'control' over the students in order to let them explore and discover on their own. (Kathy)
 - It helped me to realize that if I wanted the students to display these characteristics I have to provide the types of activities which enabled them to display them. I also integrated 'talk' about these characteristics more consistently with instruction therefore, tying instruction and evaluation more closely.
 - Yes - in the sense that I had to think about setting up situations in which the kids could demonstrate certain characteristics (Karen/Petra)
5. *What are your perceptions regarding your students' response to this framework?*
 - The students learned (internalized) the vocabulary quickly. They valued the characteristics. They were proud of the areas in which they were successful. "I know I'm industrious because I always finish my work." While they also understood the areas they needed to develop. "I know if I was more strategic, I wouldn't rush into my projects, they'd be better if I could make a plan first and organize my ideas before I started."(Kathy)
 - The students generally responded favorably. Because I valued the characteristics they felt they were important. Some discussed them and used the terms much more readily than others. I think a more long term focus would have more impact as well.(Karen/Petra)
13. *Did the framework have any positive and/or negative effects on instruction?*
 - It forced me not to lead their learning. Instead I facilitated experiences and became progressively unnecessary. (Kathy)
 - I became more aware of how to structure lessons in order to take advantage of one child's strength and develop that same characteristic in a weaker child.(Karen/Petra)

Goals and Assessment

6. *What impact did the framework have on reporting?*
 - I knew what to report on. (Kathy)
 - It focused my observations, I was more consistent in recording my observations and the characteristics where the child was successful were easy to report on - lots of specific evidence. (Karen/Petra)
12. *Did this frame work help you to assess, evaluate and report in a manner that was consistent to what you believe to be most important in the development of your students?*
 - Yes, definitely! It was excellent to have these characteristics identified and elaborated on. I agree with them 100% and it helped give a focus on what is important and what is not.(Karen/Petra)
14. *Did the framework have any positive and/or negative effects on assessment?*
 - it was easier to collect evidence using the characteristics (Karen/Petra)

Goals and Evaluation/self-evaluation

8. *To what extent, if any, will you use this approach to evaluation next term?*
 - I will continue to use it. The system is set up, the children expect it! (Kathy)
 - I will probably continue to value the characteristics in the class and incorporate comments on them in the various goal areas for reporting. Probably not to the same extent, only mentioning the characteristics if applicable. (Karen/Petra)
12. *Did this framework help you to assess, evaluate and report in a manner that was consistent to what you believe to be most important in the development of your students?*
 - Yes, I evaluated what I valued. (Kathy)
 - During self-evaluations they were able to see for themselves what their strengths were and what areas they could improve in. (Karen/Petra)
15. *Did the framework have any positive and/or negative effects on evaluation?*
 - the characteristics made it easier to pinpoint weaknesses and make recommendations on the report card. (Karen/Petra)

Goals and Reporting/communicating with parents

6. *What impact did the framework have on reporting?*
 - I knew what to report on. (Kathy)
9. *If you do intend to use the Characteristics of a Successful Learner as a framework, will you adapt it in any significant manner? If so, how?*
 - I will try to involve the parents more at home by observing their children doing a project, working on homework, playing outside, or doing a chore. (Kathy)
 - See comment above (8). I think they all fit under one of the goal areas of the intermediate program. I will be more specific about these aspects of the child under the appropriate goal.
 - we will probably incorporate the characteristics into our academic reporting rather than the other way around.(Karen/Petra)
16. *Did the framework have any positive and/or negative effects on reporting?*
 - I had lots of examples to back up statements. I felt good about that. (Kathy)
 - if anything we may not have given enough information about academic progress.
 - perhaps having a different focus for writing reports (the characteristics) made it appear that we were leaving out some important areas. (Karen/Petra)

* underlined statements indicate a direct or implied reference to the corresponding category

On the basis of the teacher questionnaire the check for coherency appears to be positive. First, the majority of the responses signalled that coherency was evident, twenty responses out of the identified twenty three. Perhaps more convincing than the number of these responses was the significant meanings contained within the responses. What the teachers say about coherency testifies not only to the fact that it was evident, but also to understanding both the pre-requisites to and the results of coherency. The following responses in the category of Goals and Instruction express the teachers *awareness* and *willingness* to align their instructional approach in a manner that was conducive to the development of learner characteristics in their students.

13. Did the framework have any positive and/or negative effects on instruction?

Kathryn: It forced me not to lead their learning. Instead I facilitated experiences and became progressively unnecessary.

Karen/Petra: I became more aware of how to structure lessons in order to take advantage of one child's strength and develop that same characteristic in a weaker child.(Karen/Petra)

The awareness and willingness expressed in these responses seem to be crucial pre-requisites to forging a coherent practice. In the example above Kathryn's awareness is evident, she expressed the need to adapt her teaching orientation - to go from 'leading learning' to 'facilitating experiences'. Not only was she aware and willing to adapt her teaching, but she also seemed to place a high value on the importance of these changes and applied considerable effort to effect them: "It forced me not to lead their learning..." Karen/Petra directly expressed the development of their awareness and how to adapt their lessons. Their awareness was then transferred to the way that they observed and understood their students, thus instruction became highly responsive to assessment. As might be expected the coherency between goals and instruction seemed to result in a deeper layering of coherency throughout the educative-evaluative process.

The efforts invested in the development of a coherent program had worthwhile returns. The following responses point to some of the positive results of coherency that the teachers valued:

1. What was the most significant impact, if any, that the use of this framework had in your classroom this term ?

Kathryn: Our learning became very meaningful. Everything we did had an additional purpose, i.e. "I want to see how thoughtful you can be by thinking about your ideas with your group." ...they became adept at evaluating how they learn.

12. Did this framework help you to assess, evaluate, and report in a manner that was consistent to what you believe to be most important in the development of your students ?

Karen/Petra: During self-evaluations they were able to see for themselves what their strengths were and what areas they could improve in.

5. What are your perceptions regarding your students' response to this framework ?

Kathryn: The students learned (internalized) the vocabulary quickly. They valued the characteristics. They were proud of the areas in which they were successful. "I know I'm industrious because I always finish my work." While they also understood the areas they needed to develop. "I know if I was more strategic, I wouldn't rush into my projects, they'd be better if I could make a plan first and organize my ideas before I started."

Karen/Petra: The students generally responded favorably. Because I valued the characteristics they felt they were important. Some discussed them and used the terms much more readily than others. I think a more long term focus would have more impact as well..

The teachers spent time and provided opportunities for their students to learn about the Learner Characteristics. The students' awareness of the specific evaluation criteria seemed to facilitate learning that was highly meaningful and purposeful. The students' understanding of the characteristics enabled them to evaluate themselves and adjust in a manner which seemed to foster their learning progress. Kathy notes that the students became adept at evaluating their own learning and were able to understand areas they needed to develop. Karen/Petra note both the ability of their students to recognize their own strengths and areas for improvement, as well as the greater impact that the learner characteristics might have over time.

A Potential Lack of Coherence

The responses that indicated a lack of coherency may appear somewhat extraneous to this study since they addressed what actions the teachers would take in the future. However, when the source three responses are traced they reveal another important pre-requisite to a coherent program. The following three comments, made by Karen/Petra, indicate a 'lack of coherency'.

8. To what extent, if any, will your use this approach to evaluation next term?

- I will probably continue to value the characteristics in the class and incorporate comments on them in the various goal areas for reporting.
Probably not to the same extent, only mentioning the characteristics if applicable.

9. If you do intend to use the Characteristics of a Successful Learner as a framework, will you adapt it in any significant manner? If so, how?

- See comment above (8). I think they all fit under one of the goal areas of the intermediate program. I will be more specific about these aspects of the child under the appropriate goal.
- we will probably incorporate the characteristics into our academic reporting rather than the other way around.

16. Did the framework have any positive and/or negative effects on reporting?

- if anything we may not have given enough information about academic progress.
- perhaps having a different focus for writing reports (the characteristics) made it appear that we were leaving out some important areas. (Karen/Petra)

The lack of coherency here exists between what is valued and what is reported. Although the teachers actually did report in terms of the characteristics, their comments intimate that they would have felt more comfortable had they used a format that emphasized goal areas and/or academic progress (**Goal areas:** Intellectual, Emotional, Artistic/Aesthetic, Social, Physical Development as depicted in the BC Year 2000 Primary Program. **Academic progress:** reporting in subject areas). Herein lies the *potential* for a lack of coherency. The above responses suggest two possible reasons for this potential lack of coherency:

1. The teachers did not actually value the characteristics, or
2. Coherency would be constrained by other factors

The first reason, 'the teachers did not actually value the characteristics', suggests that although the teachers agreed to make their program coherent on the basis of the Learner Characteristics, the Learner Characteristics may not have been what they valued to the extent that they would actually use them in students reports. The second reason suggests that the teachers do indeed value the characteristics but factors such as program policy, district protocol, or parent influence apply pressures to report student progress in a way that is less congruent to what is valued in the classroom. A follow up conversation² with Karen/Petra shed some light on this speculation. They were specifically asked: "Did the characteristics represent what you truly valued?" and "Why would you *not* use the Learner Characteristic Framework again?" To the first question the response was an overwhelming "Yes, we value the Learner Characteristics!" They also said that they would continue to collect assessment information to on the basis of the characteristics. The answer to the second question is less definitive. Karen/Petra said they would not use the Learner Characteristic Framework next term because they saw their involvement in this study as an isolated experience and not a platform for change. It was specifically expressed that they always intended to go back to their old way of reporting as prescribed by the Year 2000 Primary Program. This response is inconsistent and does not adequately explain why they would not continue to use Learner Characteristics if they represent what they value. All that was offered in way of explanation was that they, Karen and Petra, believe that as teachers within this system, the Year 2000, it is important for them to support and follow recommended guidelines.

² Telephone conversation on May 15,1992.

In light of these comments it is conceivable that the coherency between 'what is valued' and 'what is evaluated and reported' will be lost or constrained by the policy guidelines of the Year 2000 program. To their credit, Karen/Petra expressed that they will attempt to mesh the Learner Characteristics within the Year 2000 reporting guidelines. Karen/Petra's responses indicate another obvious yet significant pre-requisite to establishing a coherent educative-evaluative program. It is paramount that the mandated goals of an educational program are conceived and operationalized on a coherent basis, and furthermore that they are reflected in guidelines that teachers are bound to. It is highly conceivable that what is valued, and the benefits gained from involving students in an understanding of the criteria for evaluation, will be confounded and lost when reports of student progress are based on an alternate and less consistent framework.

Student Reports

The student reports were analyzed for coherency between the behaviors teachers reported and the characteristics to which the behaviours were assigned. This is referred to here as **local coherency**, the congruency between behaviors and characteristics. When local coherence is evident it follows that the global coherence of the educative-evaluative program will also be evident. That is, if the teachers reported behaviors that reflected the characteristics, then it is assumed that they must have facilitated learning experiences (instruction) so that such behaviors could be observed, assessed and evaluated. Since the Learner Characteristics Framework was implemented in order to satisfy the criterion of coherence, it was anticipated that local coherency would be prevalent; the purpose here is not to determine if it was, but to use the data as a double **check** for local coherency.

Two factors contributed to the likelihood of local coherency: the manner in which the teachers had agreed to write the reports, and the way the CSL Framework was implemented. The two randomly selected samples below represent the way the teachers in both classrooms wrote their reports. They used a characteristic as a heading, then substantiated their evaluative judgements by reporting significant, corresponding behaviors as evidence. The underlined type in the samples identifies these behaviors. It can be seen from these samples that *the way* the reports were written helped to ensure local coherence.

Kelly is an industrious learner.

When working independently, Kelly applies himself to the task at hand. In Math, Kelly completed most of his assignments this term. In Writing, Kelly finished his two big projects. Kelly's legend "The Enchanted Deer" and space report on "Shuttles" fulfilled the criteria set at the outset. Kelly was really focused when working on his report. He was highly motivated to do a good job. Kelly completed both of his Social's and Science projects this term. His "Indian Moccasins" role play and "Seeing Stars Box" reflected hard work on Kelly's part. Kelly was great at getting the props and costumes he needed for the play. He took his role seriously. During his "Personal Reading and Spelling Programs" Kelly works hard until the end of the period. Kelly is always on task during reading time. He really enjoyed his book "The Lochnest Monster". In all, Kelly read three novels and one non-fiction book this term. His conferences were well done. In Art this term, Kelly finished all of his assignments. Kelly's drawings are very detailed; he needs to add colour to polish his final products. (Kathryn)

Empathetic

Jenny is a gentle person who is concerned about the other students in the class. She is willing to share her belongings if it means that she can help out. She is a good group member because she is willing to collaborate with others and contribute to the group. (Karen/Petra)

The way the Learner Characteristic Framework was implemented also ensured local coherency - the assessment data used to write the reports was collected specifically on the basis of the characteristics as described in the methodology for this study. In general the above samples represent the local coherence that was evident in the reports for both classrooms.

The purpose of this analysis was to determine in an overall sense, the degree of local coherence represented by the student reports. Was there a high level of local coherence, meaning that appropriate behaviours were used to substantiate the characteristics, or a low level of coherence? A low level of coherence would be indicated by teachers assigning inappropriate behaviours to the characteristics - for instance, using behaviours such as *spells accurately* or *writes fluently* when reporting on 'thoughtfulness'. In order to determine the degree or *range of coherency* evident within the teachers reports, three characteristics were chosen as those most suitable for analyzing local coherence: Thoughtful, Generative, and Strategic. The other five characteristics were

excluded by a process of elimination according to three factors which were used in the selection of these characteristics. The characteristics to be analyzed needed to be: reported in both classrooms, not paired with another characteristic when reported, and indicative of some incoherence. Knowledge and Self-esteem were excluded because they were embedded within reporting of other characteristics in Kathy's class and were therefore not common in the reports of both classes. Risk-taking and self-esteem were paired in Karen and Petra's classroom; paired characteristics were excluded because it was not possible to ascertain with confidence which behaviours corresponded exclusively to which characteristics. Industry and Empathy were reported with such a high level of local coherence that there seemed little utility of analysis - the teachers in both classrooms seemed to have a very clear sense of the behaviors that corresponded to these characteristics.

Range of Coherence: Thoughtful, Generative, Strategic

The following method was used, in both classrooms, to check for the local coherence of each characteristic: first, all reports of a given characteristic were analyzed for the congruency of behaviors; secondly, two reports were selected - one that was judged to be the most coherent and one that was judged to be the least coherent; and finally, each reporting was coded to specify congruent and incongruent behaviors. These two reportings, one representing high coherency and one low coherency, represent a 'range of coherency' within which all reportings for thoughtful, generative, and strategic would fall. This was deemed as an adequate means of ascertaining whether or not local coherence was represented within the teachers' reports.

In Kathy's class there were 14 reports of Thoughtful, 4 reports of Generative, and 23 reports of Strategic. In Karen/Petra's class there were 5 reports of Thoughtful, 3 reports of Generative, and 10 reports of Strategic. After rereading these reports several times a total of six samples were selected for each class, two for each characteristic. The most coherent and the least coherent samples are juxtaposed below in Figure 9 for each characteristic. Appendix # 3 contains all 12 samples.

The reportings are coded as follows; underlined behaviours are congruent to the characteristic and italicized behaviours are not. The brackets after the congruent behaviours contain the specific representative traits of that characteristic, and the bracket after the incongruent behaviours contains the more appropriate corresponding characteristic.

Figure 9: Local Coherence for Thoughtful, Generative and Strategic

A 'range of coherence' from lowest to highest is represented by the reports below for a given characteristic. For instance, of all the reports written by Kathryn for thoughtful, the two below represent the lowest and highest local coherence. Local coherence is the correspondence between appropriate behaviours and characteristics.

Thoughtful: predicting, inferencing, formulates hypothesis; curiosity, intellectual alertness/attentive; reasons, uses critical judgement; recognizes patterns and makes connections.

Low coherence

Laurie is a thoughtful individual. Laurie possesses a natural curiosity (curiosity) in everything she does. Her hand is always up during class discussions (intellectual alertness) and she has no difficulty backing up one of her opinions (reasons) with a reason. Laurie is becoming better able to "read between the lines" (inferential thinking) in a story. She can find clues (making connections) to help her understand the characters feelings or find the reasons why a character acts a certain way. When Laurie wrote to Mrs. Popham (Lung Association Representative) she asked thoughtfully, "I still wonder if ladies can donate lungs ?" (curiosity, alertness). Laurie's *confidence comes through in her speaking and presenting. She had no qualms about leading two hundred people through "Lonestar" at the school Line Dance* (self-esteem).

(Kathryn)

High coherence

Jim possesses a natural curiosity (curiosity) for everything he does. His hand is always up during class discussions. He always has a comment to make (intellectual alertness) During one of our "Tripod" predicting activities, Jim suggested, "I think that a foreign body is controlling the Tripods and telling them what to do." (predicting, critical judgement). His vivid imagination lets him get inside the characters' mind (predicting & inferencing) in which he is reading about. When our "Star Trek" study was going on, Jim put a lot of thought into his responses. All of them were backed up with concrete examples (reasoning and making connections). When writing his final Science test for "Space", Jim came up with sixty-seven different ideas; (thoughtful or generative) a lot of thought went into the process. Jim's learning log is enjoyable to read. He often summarizes his learning in a humorous way. (inferencing, making connections). It gives me an opportunity to write back to him about what he is thinking and feeling. He seems to need my reassurance to know if what he is writing is okay. Jim is also adept at self evaluation (critical judgement). He is able to list what he likes and dislikes about his work and gives reasons why (reasoning). However, I think sometimes he is too hard on himself. For some reason, he was not satisfied with the "Fort York" model he did in Social Studies, and he *would not present it to the class* (self-esteem). One of the other students did the presentation for him. In this case, *Jim's expectations for himself were too high, and inevitably he was left disappointed* (self-esteem).

(Kathryn)

Generative: creative; produces unique solutions; applies ideas of others

Low coherence

Sam's projects this term have reflected his creative ideas (creative). His Seeing Stars Box" for Science was well designed and worked efficiently. Sam used a wide variety of materials (applying ideas) in his model of "Fort York" for Social Studies. Sam puts *a lot of effort into his projects.* (industrious). His legend "The Battle of Flambeck" was *well written and fulfilled the criteria set by Mrs. Miller.* (following directions) Sam enjoyed working on his "Valentine Basket" in Art; he carefully weaved his papers into an attractive design (creative). Sam's "Space Resist" focused on the "Starship Enterprise". To Sam's dismay, I displayed it on the wall up side down!

(Kathryn)

High coherence

Being generative allows Mike to achieve success in the classroom; this is Mike's strongest characteristic. Mike likes to build 3D objects (creative). One time he approached me with a space ship in hand which was too floppy! Mike suggested making a support (creative) for it, so he did. He found a creative solution to a problem (producing unique solutions) After school one day, Mike voluntarily helped a student with a problem. The student had lost her watch and Mike suggested, "I'm studying to be a detective, I can help you find your watch." (producing unique solutions). He eventually did; the student was delighted. While making our Valentine basket, Mike came up with a very unique design (creative). Often in Art Mike will take the assignment beyond the boundaries (creative). During a math problem solving task involving the cutting of a crescent moon, Mike achieved success by finding the solution to the problem (applying unknown solutions). It took time but *he persevered* (industrious). When Mike wrote to our custodian about the problem of paint spilling in the classroom, he came up with a solution (producing unique solutions). He suggested putting newspapers under the paints next time, so they don't spill. All these examples show Mike's ability to be generative. *More importantly though, these situations have helped Mike gain valuable self-worth. Whenever he comes up with a new solution to a problem, Mike feels good about himself.* (self-esteem) (Kathryn)

Strategic: planful, resourceful, organized

Low Coherence

Amy showed evidence of being resourceful when she implemented a plan to help a friend (planful). She made sure that she collected extra sheets for Ashley and delivered them to her after school. She was also *willing to help with anything that needed clarifying* (empathy). Amy keeps her belongings well organized (organized) and is always ready to begin working on time.

(Karen/Petra)

High Coherence

Sam showed evidence of being resourceful when he went to the library to find information (resourceful) on Judge Begbie. He felt that the information would help him with preparation for his role (planful). He has also written many letters to sports figures in order to gain more information about them and their careers (resourceful). He keeps his notebooks tidy and well organized (organized) and is always ready to begin working.

(Karen/Petra)

The primary differences between the high and low range samples tended to be a greater representation of the traits related to the characteristic, a greater consistency of congruent behaviors, and a greater number of examples provided for the high range

reportings. This is clearly demonstrated in the Kathy's reports of 'thoughtful'. In the high range reporting for Jim, Kathy used seven different traits and cited ten behavior examples; for Laurie she only used four traits and cited five behavior examples. For both Jim and Laurie there was only one behavior cited that was incongruent to the characteristic of 'thoughtful'. Karen/Petra's reporting of Strategic shows a similar trend. In the high range reporting they represent all three traits related to strategic, provide four behavior examples, and use all consistent behaviors. In the low range reporting for Amy, Karen/Petra represent two traits related to strategic, provide only two behavior examples, and report one inconsistent behavior.

The endeavour of this analysis was to check for local coherency by representing the range of coherency between the teachers best and poorest reports for the selected characteristics; the intention was in no way to discredit the teachers efforts by looking for the samples of poor reporting. The teachers' low-range reports may have lacked coherency, however they were often very appropriate and communicated relevant information to the child's parent. In general the low range reports were identified as such because the behavioral substantiation of the characteristic tended to be weaker and the congruency between behaviors and the characteristic not always evident. The incongruent behaviors may have detracted from local coherency but it is important to note that they still supported global coherence. The teachers were observing, assessing, evaluating, and reporting behaviors that were congruent and coherent to the overall framework. Had emphasis in the reportings been given to behaviors such as spelling, memorization, or subtracting with borrowing, and then used as evidence of thoughtfulness, or being generative then this would have been a much more serious cause for concern. On the basis of the reportings analyzed it would appear that the check for local coherency was positive. The samples at both the high and low ends of the coherency range contained behaviors that were congruent to the characteristics. The teachers had a clear sense of the behaviours

which exemplified the characteristics and were able to uphold local coherency within their students' reports.

In summary, it was evident from the teachers' responses on the questionnaire, and from the student reports, that the check for coherency was positive. The identified responses on the teacher questionnaire signalled global coherency, the connection between goals, instruction, assessment, evaluation, and reporting. The student reports indicated coherency on a local level. The teachers appropriately identified and reported behaviours that were indicative of the characteristics. In those instances where the teachers reported behaviours that had less local coherence to a given characteristic, they still maintained global coherency as these behaviours generally corresponded to other characteristics within the framework.

Analysis of Sustainable

Was the use of the Learner Characteristics Framework 'sustainable'? That is, were the expectations of the instructional-evaluative process reasonable such that teachers could maintain and manage the process with relative ease? The criteria of sustainable was described in terms of feasibility which presumes 'organizational-ease' and 'time-effectiveness'. These two factors were considered in the analysis of sustainable and were applied to both the instructional-evaluative process and the writing of student reports. Responses on the teacher questionnaire that made reference to these aspects of sustainability were identified in order to effect this analysis.

The Instructional-Evaluative Process

As applied to the instructional-evaluative process, the Learner Characteristics Framework clearly satisfied the criteria of sustainability; it was both time-effective and had organizational ease. In order that students would have opportunities to manifest the characteristics teachers modified their instructional approach by giving students greater responsibility for their own learning. In doing so, *time was generated*, and the teachers were able to devote more time to assessment and evaluation:

3. Did the framework help you to make instructional decisions? If so, how?

KATHRYN: In order for the characteristics, in each child, to develop, I had to change my method of instruction to a much more student centered approach. I had to let go of my 'control' over the students in order to let them explore and discover on their own. I was no longer on 'stage', so I had ample time to sit back and observe each child in different situations.

13. Did the framework have any positive and/or negative effects on instruction?

KATHRYN: It forced me not to lead their learning. Instead I facilitated experiences and became progressively unnecessary. At the outset of every lesson, we (the class) discussed what characteristics we would need to be successful in the activity. So we identified them and then I sat back and evaluated the children ...

KAREN: No negative effects I could see. It reminded me to give more opportunities for decision making to the students and to let them do more planning, organizing without my input. They showed that they are certainly able.

Time was also generated for assessment and evaluation by the mere fact that ongoing assessment and evaluation was recognized as essential and integral to the instructional-evaluative process. Therefore ongoing assessment and evaluation was re-valued and re-emphasized with regards to time. This may have a significant implications for effecting pedagogical changes in the classroom. When particular aspects of classroom practice are given precedence priorities change and emphasis shift such that desired ends are accomplished. Success of the Framework was contingent upon teachers consistently collecting assessment information on a day-by-day basis. Therefore time was created by changing priorities in order to accommodate these expectations. The nature of the changes was very positive: instruction was modified in a manner that gave greater responsibility to the students for their own learning, thus time was generated enabling teachers to assess and evaluate their students, gain insights, and support learning in meaningful ways.

Instructional modifications were not the only factor contributing to the time-effectiveness of the Framework. It is fair to note that time was likely generated due to 'research reactivity' (Campbell & Stanley, 1963). That is, the teachers were 'divining the researchers intent' and clearly recognized that ongoing assessment was contingent to the study's success. Karen makes an explicit reference to this factor:

10. How sustainable was using this framework for assessment and evaluation on a day to day basis? Please comment on the time required to sustain this process in comparison to evaluation processes you have used in the past.

KAREN: It was very similar to what I have done in the past and probably took no more or less time. I felt that I was more consistent at the beginning of the term than at the end (in recording observations). I tended to do that in the past as well. **I also think I may have been more faithful about it because I was working with someone (Sue) who expected feedback and information.**

With regards to organizational ease, it was evident that the instructional-evaluative process was sustainable. Organizational ease was realized because the Learner Characteristics Framework provided a specific criteria and a *limited* number of criteria

upon which to base the evaluation of student achievement. At the outset of the study, the teachers expressed their appreciation of the Framework because it provided them with a means of *focusing* their observations.

14. Did the framework have any positive and/or negative effects on assessment ?

KAREN: Positive: more focused observations

PETRA: it was easier to collect evidence using the characteristics

10. How sustainable was using this framework for assessment and evaluation on a day to day basis ? Please comment on the time required to sustain this process in comparison to evaluation processes you have used in the past.

KATHRYN: I made myself do it. The system for collecting and sorting data was convenient (very strategic of me !) Although I did find that some students received more of my attention and ended up with more data. I'm not sure why ? The most effective way I have found yet !

The limited number of criteria was an aspect of the Learner Characteristics Framework that facilitated a highly manageable process and promoted its sustainability.

Writing Student Reports

The time-effectiveness of writing student reports is a critical contingency to the Learner Characteristics Framework's ultimate, or future, potential. The issue of time is one that figures significantly for educators and if writing the reports was seen as an overwhelming expenditure of time then conceivably the Framework's merits could be dismissed on this basis. Thus, the 'time-effectiveness' of report writing was a primary concern in the analysis of sustainability.

The format of the student reports predisposed the criteria of sustainability to be satisfied. As noted earlier, it was decided that the report would communicate student progress on the basis of the four most relevant characteristics for that child rather than

attempting to report on all of the characteristics. Undoubtedly this strategy was effective; however, where the writing of student reports was sustainable for Karen and Petra, it was considerably less so for Kathryn:

11. Approximately how much time did you spend writing each student's report? How sustainable was reporting using this framework in comparison to reporting procedures you have used in the past?

KAREN: Approximately **30 minutes each**. I think it is sustainable. We still seem to have too much - cover letter, list of characteristics, individual report plus comments attached by learning assistant where appropriate plus music teacher. It would be easy for me to continue using this framework, however.

PETRA: we spent about **30 minutes sometimes 40 minutes on each** student's report; this was not much less time than we used before, in fact very nearly the same amount; part of the time element may have had something to do with having to think about writing in a new format

KATHRYN: I spent **about two hours on each** students - a lot of time - a lot of stress. But I really was proud of them. I felt good about my reporting. (I was very industrious and thoughtful !)

Karen and Petra were very familiar with writing anecdotal reports which contributed to the ease of accommodating themselves to writing reports on the basis of the Learner Characteristics. Petra's comment actually implies that the reports took a little less time to write than they normally did and that a component of the time element may have been a function of adjusting to a new format. Karen and Petra's experience then indicated that writing the reports was sustainable in terms of time.

Kathryn's experience suggests that, even though she felt her efforts were worth the results, writing the reports was not sustainable. There were three significant reasons why so much time was expended. First, Kathryn had never used an anecdotal format before to report student progress. Not only was she adjusting to a new frame of reference, the characteristics, but she was also adjusting to a *written* format to report progress; naturally original attempts require greater expenditures of time than do those based on experience. Secondly, Kathryn likely took longer to write her reports because, in comparison with

Karen and Petra, she had collected approximately five times as much assessment information. In conversations with Kathryn when she was applying herself to writing the reports, she commented that it was quite time consuming to sort out each child's assessment information³. However, it was also expressed, emphatically, that this was revealing and worthwhile experience ! Kathryn said that it was during this time, while looking at all of a child's assessment slips spread out before her, that sudden insights would come to her. She would express for instance, "*All of a sudden, I realized why Katy wasn't doing better; she is not very generative ...*", or "*Now I know why Roslin is so successful, I have six different assessment slips on her 'being thoughtful' !*" However, accommodating all the information that she had on each child and organizing it in a meaningful manner, was a considerable time expenditure for Kathryn. The third and obvious reason that Kathryn took a greater amount of time to write the reports was because they were almost twice as long as Karen and Petra's. Despite these three reasons, and the amount of time taken, Kathryn validates her efforts:

KATHRYN: ...But I really was proud of them. I felt good about my reporting.
(I was very industrious and thoughtful !)

An Optimistic Aside . . .

Ongoing contact was maintained with Kathryn after the study and creative attempts were made in order to make report writing more sustainable while still maintaining quality. Kathryn was able to cut her time down to approximately 25 minutes per report for the next term's reports. In general the same process and format were used as in the previous term, four characteristics per child were reported on. This time however, rather than writing paragraph-commentaries for each characteristic, Kathryn used a point form style. On the following page is a sample of her new 'sustainable-format'.

³ In a follow up conversation with Kathryn it was determined that the time she took to organize assessment information was accounted for in the '2 hours' she noted above.

Alice

Grade Five - Third Term

Alice has had a very successful year. She has demonstrated throughout, that she is a responsible learner. Alice is at expectation for her age level in Reading, Mathematics and Writing. The characteristics she is developing as a learner are summarized below.

Strengths

Alice continues to be an industrious learner:

- always quiet during her personal reading program but finds it hard to concentrate (read 1 novel this term)
- listens to announcements attentively and takes notes
- gets down to work without stalling even when a substitute is teaching
- completes her spelling list and chart every week
- stays on task for the duration of computer time
- completes math assignments during class time
- completes all of her art projects, and many on her own time
- on task during "Drafting": she loves to write
- finishes runs to Ella Beach non-stop
- finished these projects: Ukrainian diorama
Vertebrate classification chart

Alice is becoming a thoughtful learner:

- chooses challenging spelling words each week: meaningful words to do with what we're studying
- is able to back up her opinions about world issues with reasons
- reads with expression or the appropriate accent when reading out loud
- writes with personal style: Ukrainian Time Line was written as though Alice actually experienced being a homesteader
- generated thoughtful dialogue in the scene "On the Colonist Car" in the play "Coming to Canada"
- achieved her earned award: her horse sketches were very realistic and detailed
- designed and made an authentic habitat for her terrarium
- wrote with concern and feeling about "freedom" in her Canada Day essay
- demonstrated an extremely high level of understanding towards the process of evaluation through the "characteristics of a successful learner": sat on the student panel for the staff meeting
- evaluates herself and her peers thoughtfully: gives a lot of examples
- wrote a diary from "Ian's" point of view for her "Amish" project
- used many delicious words in writing her folktale "The Princess's Ring"
- applied for the Kindergarten babysitting job in writing and got the job!
- wrote 16 poems using personal flare, in her poetry book
- designed a detailed painting of Joseph Oleski on our classroom window

Areas Needing Attention

Alice continues to work at being empathetic:

- apologizes verbally to other children for negative remarks
- understands and follows consequences for inappropriate behavior: letter or phone call home

Alice is putting more thought into her reading:

- learning how to "read in between the lines": reading comprehension
- learning how to choose books which are a suitable level and can sustain her interest

Summary

I have really enjoyed having Alice in my class this year. She has been a reliable worker in the class and demonstrated excellent work habits to her peers. Alice has shown a real love for writing this year. She always puts for the a strong effort into her writing projects. She writes with feeling and is adept at being able to express herself using descriptive words: "swimming in the beautiful blue waters," "fish that swim wildly," or "the scenery which surrounds us." Alice's Haiku on the "Northern Lights" is especially meaningful.

I will really miss having you around next year, Alice. We shared many hours after school this year as you, Caty and your sisters lingered in the classroom to paint pictures, look at animals or finish up work. I hope you continue to be thoughtful in your learning next year. Good luck in grade six.

(KATHRYN TURNBALL, 1992)

The learner characteristics contributed to the organizational ease of writing the reports. The teachers noted that the characteristics were succinct and meaningful and that they provided a means of focusing, limiting, and organizing the information to be communicated in the students' reports.

6. What impact did the framework have on reporting ?

KATHRYN: I knew what to report on. They were meaningful and succinct. They were personal.

KAREN: It focused my observations, I was more consistent in recording my observations and the characteristics where the child was successful were easy to report on - lots of specific evidence.

PETRA: having actual incidents as evidence made reporting easier and more personal for each student. . .

In essence, the limited number of characteristics, or behaviours, to address provided a way for teachers to focus and limit information to what was most relevant to the child.

In summary then, the Learner Characteristics Framework appeared to satisfy the criteria 'sustainable' to a reasonable degree. With regards to time-effectiveness, the instructional-evaluative process was readily sustainable; instructional modifications placed greater responsibility for learning upon the students which resulted in 'time generated' for teachers to devote to assessment and evaluation. The time-effectiveness of writing the reports was variable indicating that constructive means of making this aspect of the evaluation process sustainable need to be considered in a manner that does not compromise the quality of the end product. Organizational ease was realized in both the instructional-evaluative process as well as the writing of student reports. The characteristics provided a limited but relevant means of evaluating and reporting student achievement which promoted sustainability.

Analysis of Validity

The purpose of this analysis was to determine if the evaluation process based upon the Learner Characteristic Framework satisfied the criteria of validity. Validity was defined as that criteria that *engendered certainty*, which presumes confidence, trust, and accountability, and *provided utility* which permits the child to make, or teachers and parents to support, enlightened engagements with future learning experiences. The degree of validity was determined by addressing the following question: Did the Learner Characteristic framework provide teachers and parents with a clear understanding of the child's learning progress such that learning could be supported in a worthwhile manner? The examination of validity was perhaps the most critical as it provided the most direct and authentic indication of the Framework's merit and worth. Unlike 'coherence' and 'sustainable', the Framework was not consciously implemented to satisfy the criteria of validity. Therefore the data was not merely 'checked' for validity, but was carefully examined in order to determine if validity was evident and to what extent.

The data used for the analysis of validity were the student reports, the parent surveys, and the teacher questionnaires. The student reports were examined to determine if they satisfied the 'conditions of valid judgements'. The parent surveys were analyzed generally to gain an impression of the parents' overall satisfaction with the reports and specifically to determine what aspects of the reports they valued or felt unsatisfied with. The teacher questionnaires were analyzed to determine those specific aspects of the evaluation process that the teachers' either valued or felt unsatisfied with in terms of 'validity'.

Student Reports

The student reports represent the composite, or end result of using the Learner Characteristics Framework and are the final basis upon which the parent and teachers perceptions were communicated. Thus it is logical to begin with their analysis in order to bring a greater significance to the analysis and interpretation of the parents' and teachers' perceptions. The following traits of evaluative judgements were proposed in order to uphold validity:

Evaluative judgements upholding validity:

- # 1 - are expressed descriptively rather than reduced numerically,
- # 2 - are based upon triangulated sources of evidence,
- # 3 - are based a community concensus,
- # 4 - indicate relative standing,
- # 5 - are evolved through an ongoing process of validation

The first four traits were considered in this analysis to reveal the nature and validity of the students reports.

As the reports within each classroom were consistent in form, style, and content, five were randomly selected and examined from each class in order to facilitate a thorough analysis. This was determined to be a satisfactory representation of all reports for each class. The analysis of the reports considers 'how' student progress was communicated, 'what' information was communicated, and 'what' information was not communicated. In doing so, the above traits of evaluative judgments are addressed and embedded within this analysis and discussion.

It is important to recall the 'guidelines' and 'suggested format' for writing reports below that the teachers and researcher developed collaboratively. These guidelines overlap with the traits of valid evaluative judgments and therefore contributed to their exemplification in the reports. In this regard alone was validity predisposed by the implementation of the Framework.

Guidelines for writing reports

1. Be succinct
2. Support evaluative judgements with specific examples/evidence
3. Report on what is most relevant to the individual child.
4. Offer areas to focus on and future goals to be addressed.
5. Maintain a positive and professional voice.
6. Avoid jargon.

Suggested Format

- 4-6 evaluative statements that describe relevant aspects of child's progress
- Each statement should be supported by specific examples - this is the evidence that substantiates evaluative statements above.
- The examples provide a means of intersecting and describing: the child, the characteristics, and the curriculum.

'How' progress was communicated - Trait #1: Describing progress

As was expected the teachers consistently communicated student progress by describing learning in terms of the characteristics, they did not use any forms of numerical summation. By carefully reading the student reports several times it was determined that the language used by the teachers was straight-forward and free of academic terminology that may have obscured understanding. Furthermore, the nature of these descriptive evaluations promoted clarity of understanding and offered utility. The reports fostered utility in two ways. First, the teachers included 'areas to focus on' and 'future goals to be addressed' as agreed. Secondly, in Kathryn's reports specific advice was embedded within the individual evaluative judgements of the characteristics. Karen/Petra also implied actions; however, Kathryn elaborated on specific actions that the child could take in order to achieve greater success. The following two examples illustrate these differences and demonstrate the clarity and utility fostered by the teachers effective use of description.

Alice needs to put more thought into her learning .

I would like Alice to think more about what she's reading. This is called 'reading between the lines.'" It requires going back sometimes and re-reading bits and pieces to look for clues. She may have to stop every now and then and reflect upon what she has just read. Being thoughtful requires time and effort. In her writing, I would like Alice to stop and think about what she has written: Can I put in more powerful words ? Can I take out repeated or boring words ? Does my writing make sense ? Stopping to evaluate writing helps to stretch thinking skills. When Alice is finished a piece of work, I would like her to rate it.: What did I do well ? What could I improve on ? What would I do differently next time ? Asking questions is a good strategy to use in developing thoughtfulness. (Kathryn)

Knowledge

Dianne last math test indicated that she has a good understanding of the concepts that were introduced this term. She had forgotten how to do some of the questions involving fractions and decimals, but after a quick review was able to correct her errors. She has completed her times tables drill to 12 and is currently working on division facts. Dianne is reading fluently. Her reading responses show that she has a good understanding of character and plot in the books she chooses. She is just beginning to give her own opinions and is able to support them up with evidence from the story. Dianne has written a number of letters and stories this term. She is able to express her opinions well. When she proofreads her work she is able to find many of her own error,. She is beginning to become more aware of her own spelling errors. (Karen/Petra)

The way the teachers communicated learning progress satisfied the first trait of valid evaluative judgements: progress was described.

'What' was described - Trait #2: Triangulation

Trait #3: Community consensus

There were three significant elements of information contained within the reports: the child, the characteristics, and the curriculum. The information conveyed about 'The child' is worthy of note as this element is distinct from what is typical progress reports. Traditional reports which typically express progress in terms of grades tend to be generic in nature and offer little information that is unique to the individual child. The reports based upon the Learner Characteristic Framework however, were clearly unlike this. The Learner Characteristic reports tended to be more personal and conveyed information that was particular to the individual child's personality and learning style. The reports described the child rather than subordinating the child to the curriculum. When asked to compare the Learner Characteristics report to other reports that they were familiar with one parent made a comment to this effect.:

There was more information on the individual child's progress not the class progress. (Kathryn's class)

By communicating the child's progress in a way that captured the uniqueness and individuality of the child the reports engendered trust and confidence within the parents. The parents seemed to feel that the teacher really knew their child and had a well-rounded, or holistic understanding of their child. This was evident by comments made by the parents such as:

- I felt involved in her education 'seeing' into her days.
- You have great insight into my child's personality and learning style
- (The report) gave us a more rounded picture of Jerry as a learner."

The reports captured a picture of the child's learning achievements that seemed to confirm what parents intuitively sensed about their child. In this sense the reports satisfied validity; they engendered certainty by providing information about the child in a manner that was not generic, but personal and unique.

As expected 'the characteristics' and the curriculum' were the other significant elements of information in the reports. The teachers effectively described the child in terms of the characteristics that were manifested in the various curricular areas. This intersection between the characteristics and the curriculum seem to be a natural means of satisfying trait #2, using triangulated sources of evidence to substantiate evaluative judgements. The ten selected reports were specifically analyzed for the use of triangulation. For instance, if the teacher was describing the child in terms of "thoughtfulness" how many curricular areas were used to support a judgment and how many contexts within a curricular area were provided to substantiate a judgment ? The analysis of triangulation was executed in the following manner :

1. The number of judgements made for the five reports in each class were counted
2. Then the number of substantiations were determined; all curricular areas and examples used for a given judgement were identified, counted, and totalled
3. Then the average number of substantiations per judgement were determined by dividing substantiations by judgements.

Kathryn made 19 evaluative judgements on the five reports and made a total of 135 substantiations. On average then, she used approximately 8 different curricular areas and examples to substantiate a judgement. The example below illustrates the extent of triangulation used. The curricular area is bold-faced and the various examples used within the context are underlined.

Tom is an industrious learner.

When working independently Tom is very industrious. During Personal Reading Time, Tom can often be found 'lost in his book'. He really enjoys reading the Encyclopedia Brown series. All in all Tom has read twelve novels this term; he has followed up each of them with a book conference. In Math, Tom completes all of his assignments. He is eager to start his questions and works diligently until they're done, usually before the end of the period. Tom is also conscientious about doing his corrections. Tom is very motivated when working on an independent art project. He works quietly and industriously on all of his works of art! He is proud to put them up in the class room for his peers to see. Tom finished his Socials and Science projects this term: Both his "Seeing Stars Box" and game "Trappers Wild" were completed before the due date. (*Kathryn Turnbull*)

In making her evaluative judgment of Tom's industriousness, Kathryn used five different curricular areas to substantiate her judgement. Within reading, she describes four contexts where Tom has demonstrated his industriousness: when reading independently, when reading Encyclopedia Brown, during individual book conferences, and by reading a total of 12 books.

The extent of triangulation used by Karen/Petra was also determined. On the five reports they made a total of 16 judgements and 74 substantiations for an average of about 4 - 5 substantiations per judgment. The following example illustrates a typical example for a judgements of the child's knowledge.

Knowledge

John continues to build on his solid knowledge of the basic operations in math. During the last test he did encounter some difficulty with decimals. Review of the concepts will help to maintain his skill level.

John is continuing to read a variety of novels and is making more challenging choices. He is beginning to include his own opinions in his responses but is not yet supporting these with evidence from the story. When John makes the effort his writing shows improvement in mechanics. He is improving in his ability to recognize most of his mistakes and correct them.

John has gained a lot of knowledge about drawing this term. He has taken the time to practice at home and this has made a difference. (*Karen/Petra*)

The analysis demonstrates that the teachers' evaluative judgements were well supported by using triangulated sources of evidence.

Was the information provided in the reports based upon a community consensus thereby satisfying the third trait of valid evaluative judgements ? That is, did the information conveyed by the reports regarding the 'child', 'curriculum', and 'characteristics', constitute what was recognized as relevant and significant to the teachers and parents ? It is unlikely that the relevance of the 'child' or the 'curriculum' would be negated. Indeed, it seems prudent that reports convey information about 'the learner' and 'the content being learned', thus the focus here was upon the Learner Characteristics. Were the Learner Characteristics valued as a relevant and significant basis for reporting ? At the outset of this study, valuing the characteristics was a pre-requisite for the teachers involvement as described earlier. Additionally there was an implied consensus of the parents because they had the choice to have their child involved in the study as well as an opportunity to choose those characteristics(2) they were most interested in having their child evaluated on. To a degree it was apparent that there was a community consensus regarding the significance and relevance of the Learner Characteristics as a basis for evaluation, the question here becomes: Was this consensus of the Learner Characteristic's significance and relevance sustained ?

The parent surveys and teacher questionnaires indicated that there was a sustained consensus regarding the value of the Learner Characteristics. For instance, the following responses on the teacher questionnaire substantiate this:

2. *Did you find this framework to be a meaningful way to assess and evaluate your students? If so, how?*

KATHRYN: Very meaningful. It gave me a lot of insight into my students. It helped to identify why the successful learners were successful and why other children were not. I found that most students had one overriding characteristic which handicapped them, it was very clear which ones they were: strategic, thoughtful, etc.

KAREN: I did. I value all the characteristics we used and felt comfortable in encouraging the children to value them. I noticed however that the knowledge section was down played in comparison to my past evaluations - perhaps because there were so many aspects of the child I was looking at.

PETRA: it was meaningful in the sense that I came to know my students better in more areas than just academic, simply because I had to look for evidence to support the characteristics

The teacher's questionnaires were also examined for any value judgements made specifically in reference to the characteristics. The teachers made several observations which indicated the relevance and significance that the characteristics held for them, such as:

16. *Did the framework have any positive and/or negative effects on reporting?*

KATHRYN: I would have liked to report on all eight characteristics ..."

6. *What impact did the framework have on reporting?*

KATHRYN: They (the characteristics) were meaningful and succinct. They were personal.

4. *Do you feel the framework allowed you to understand your students any differently? If so how?*

KATHRYN: much more personally, realistically, and meaningfully.

8. *To what extent, if any, will you use this approach to evaluation next term?*

KAREN: I will probably continue to value the characteristics in the class and incorporate comments on them in the various goal areas for reporting.

12. *Did this framework help you to assess, evaluate, and report in a manner that was consistent to what you believe to be most important in the development of your students?*

KAREN: I agree with them (the characteristics) 100% and it helped give a focus on what is important and what is not.

PETRA: (the characteristics) addressed all the ways in which a student needs to develop in order to be a successful learner.

Questions 13 through 16 provided teachers with an opportunity to express both the positive and negative effects that the characteristics had on the various aspects of evaluation. No comments were made however, to indicate that the teachers felt the characteristics lacked relevance or significance as a basis for evaluation.

Overall, the parents also valued the characteristics as a basis upon which to receive information on their child's learning progress. When asked on the survey if they would like their child's progress to reported using the Learner Characteristics Framework again, 27 out of a total of 33 responses from both classrooms indicated that they would. In addition, a significant theme prevalent in the parent responses was the value placed upon the characteristics as a means of accessing a comprehensive and holistic view of their child.

(My child's report was) ...very adequate and meaningful - 'strategic', 'generative', 'empathetic' 'thoughtful' and 'industrious' - if we all could be tuned in what fine learners we would be - not only that - but what socially respectful persons we would also be. Our young people more than ever need a strong sense of self worth - this kind of teaching aid ... is the answer for our kids ! (Kathryn Turnbull's class)

We appreciate the new evaluation method; it is detailed, personal and seems effective. It presents a more balance picture of our child in the classroom. (Kathryn Turnbull's class)

We prefer this report to previous reports as it give a more rounded picture of Kevin as a learner. (Karen/Petra's class)

This data supports that there was a consensus among parents regarding the relevancy and significance of the characteristics as a basis upon which to evaluate their children. In sum the both the teachers and parents indicate that the Learner Characteristics are a significant basis for evaluation.

What was not conveyed - Trait # 4 : Relative Standing

The analysis of validity need consider not only the information conveyed by the reports, but also information that was not conveyed and would have contributed to greater certainty and utility had it been. As indicated previously in chapter one, statements of relative standing are prerequisite to making accurate, sound interpretations of teachers' evaluative statements. Reports of learning progress need to convey to parents whether or not their child's learning achievements are acceptable for a given age. In doing so, such reports satisfy trait #4, the provision of relative standing.

The provision of relative standing was not evident in the teachers reports. The teachers statements may have implied 'standing', but definitely they were not expressed in clear and direct terms and therefore were open to speculative interpretation. A review of any of the previous samples of teachers' reports included here bears this out. The deficiency of reports to communicate relative standing may be contributed to two factors. One factor may be the misunderstood and over-emphasized *can do* reporting philosophy of the Year 2000 Program. It would appear from discussions with the participants that statements of relative standing are associated with negative reporting (areas where the child is not doing well) and should therefore be avoided. The second factor may simply be viewed as an oversight of the researcher - the provision of relative standing could easily have been included as one of the guidelines for writing reports; however it was not. Nonetheless, this oversight resulted in the recognition that statement of relative standing are essential to validity - especially to engendering the certainty of parents in their child's learning progress. A prevailing concern expressed in the parents' surveys was the need to understand if their child's achievement was acceptable for their age. This was aptly expressed by a parent in Karen/Petra's classroom:

...the goals in this report are very important, such as self-esteem, and risk-taking and I like that reporting, but I don't really see anything in the report that he's at

a grade five level in math etc. I am afraid that he'll get to high school and be below what is necessary for that level. ...This reporting method is fine for Robert, because I feel that he is progressing well, but if I had a slower learner, (or one who didn't read well for example), I'm not sure if it would tell me his progress in relation to others of his age. I still feel that we need grades and marks to see where they stand. (Karen/Petra's classroom).

Although this parent valued the child's report based upon the Learner Characteristics, she clearly expressed her desire to know the relative standing of her child's academic achievement and her concern for his educational future. Her concerns are echoed by another parent:

I thought Tracy's report was good. Stating specific example of her work is very meaningful. I feel parents should have benchmarks to follow, stating the specific skills a 'typical grade four student should be mastering for that school year. (Karen/Petra's classroom)

The situation in Kathryn's class was somewhat different due to the fact that the parents were provided with two reports of their child's progress. In addition to the report based upon the Learner Characteristics, the parents received a traditional graded report card. There were eleven parents out of the 21 who specifically expressed an appreciation for receiving both grades and described accounts of learning based on the Learner Characteristics. The following comment conveys this message:

If we had to choose between grading or the new method we would choose the latter. But we appreciate both, together. (Kathryn's class).

Eight parents made no reference to grades at all, and three parents actively opposed letter grades which was expressed in the following manner:

I quite like the style of this report - it is much more relevant than a group of letters. (Kathryn's class).

I get much more out of the written report on him than just letter grades and a short little write-up. The characteristics are a great idea ! (Kathryn's class)

I'm still unhappy about grading - how self-defeating that is to the purpose of our new reports! (Kathryn's class)

Although there seems to be increasing opposition to grades, they do provide parents with an understanding of whether or not their child is at an acceptable level of achievement relative to what is normal for their age. The provision of relative standing seems to reassure parents that their child is doing okay. Another parent from Kathryn's class expresses this as follows:

I am however a bit worried that his grade is going down in Math, Social Studies, and Science. When I know he has put a lot of effort into his projects this term ... why an A to B? (Kathryn's class)

This parent's message seems to convey an uneasiness, or concern due to the lack of congruency between the description of the child's progress which implied growth and the grades which indicated a lack of growth. The descriptive account did not explicate the child's relative standing - relative to what is reasonable and normal to expect for a child of his age, or relative to the status of the child's achievement from the previous term. This is not an argument suggesting a reversion to grades, but to emphasize that statements of relative standing are prerequisite to engendering certainty, and therefore validity. The implication here emphasizes the necessity of statements of relative standing when reporting student progress which may adequately be stated 'at expectation', 'above expectation', or 'below expectation' expectation.

To summarize, the reports were valid in degree. The reports fostered validity by satisfying the following traits of valid evaluative judgments: they clearly described progress, they substantiated evaluative judgements by relying on triangulated sources of evidence, and they were based upon a community consensus conveying information that was considered relevant and significant. The reports seemed to lack validity because they failed to provide clear statements of relative standing.

Parent Surveys

The parent surveys were analyzed in order to determine if the parents considered the reports to be valid accounts of their children's progress. Specifically, did the parents gain a clear understanding of their child's progress which engendered their confidence and trust in the information that was conveyed? This analysis also considered whether or not parents felt that the information communicated in the reports was useful and would enable them to support their child's learning according to identified learning needs.

Thirty two parent surveys were collected from the two classrooms, 21 from Kathryn's, and 11 for Karen/Petra's. Three modes of analysis were used to examine the parents' responses to the following survey questions:

1. What did you think of your child's report this term ?
2. Did you feel your child's report was adequate and meaningful ? Please Comment.
3. How does this report compare to other reports you are familiar with ?
4. Would you like your child's progress to be reported in this manner again (using the characteristics of a successful learner) ?

First, each survey was given a global rating to specify whether or not the parent was satisfied with their child's report. The surveys were rated as either positive or negative. Secondly, the parents' affirmative or negative answers to questions 3 and 4 were tallied. And thirdly, the reasons and elaborations that the parents provided were categorized into the significant themes that they represented. These three modes of analysis were used to establish the validity of the reports on the basis of the parent surveys. In addition, the negative surveys were analyzed to ascertain the nature of their criticisms and how these might reflect on the extent to which validity was satisfied.

The global positive/negative ratings were relatively easy to determine because of the clear and obvious distinction that existed between the parents who responded positively and

those who responded negatively. This was sharply marked by the parents responses to questions three and four. For instance, if the parents were negative they were adamant in expressing how they felt this report compared poorly to others, and how they did not want their child's progress reported in this manner again. In Karen/Petra's class there were 9 positive surveys and 2 negative of the total 11 surveys collected. In Kathryn's class there were 19 positive and 2 negative surveys of the total 21 surveys. In general the majority of the parents, 28 of the 33, responded positively to the reports based upon the Learner Characteristics.

The affirmative or negative answers to questions 3 and 4 were tallied for the second mode of analysis. This tally provided a more specific indication of parents feelings and corresponded to the global rating. Question number three asked parents to compare this report to others they were familiar with. The parents' responses were easily interpreted; they either preferred Learner Characteristics format, did not indicate a preference, or found the format unacceptable. For example, the following responses are quite typical:

Preferred the Learner Characteristics Framework

- I feel this report is a good improvement over other report cards (Kathryn's class)

No specific preference was indicated

- I like the anecdotal reporting procedure. Jane and I like to see the grades too. Perhaps continuing with grades and anecdotal is the way to go. (Kathryn's class)
- Isn't it the same as the last one ? (Karen/Petra)
- or no answer was provided

The Learner Characteristic Framework was unacceptable

- Extremely poor. Meaningless." (Kathryn)
- I prefer the subject-by-subject organization of last year's anecdotal (report) (Karen/Petra)

In Karen/Petra's class 5 parents preferred the Learner Characteristics report, 4 parents gave no indication of preference, and 2 did not prefer the format. In Kathryn's class 13 preferred the Learner Characteristics report, seven indicated no preference, and two did not prefer the format.

Question number four was analyzed in a similar manner. The parents responses were tallied according to yes/no indication of whether or not they wanted their child's progress reported on the basis of the Learner Characteristics again. In Karen/Petra's class, 8 parents indicated that they wanted their child's progress reported on the basis of the Learner Characteristics, 2 indicated they did not, and 2 were non-definitive. In Kathryn's class 18 parents indicated that they wanted their child's progress reported on the basis of the Learner Characteristics, 2 indicated they did not, and again 2 were non-definitive. In total, 26 parents wanted their child's progress reported on the basis of the Learner Characteristics again. It is not surprising that the negative global responses and the negative responses in questions three and four were all from the same surveys. Parents that did not like the Learner Characteristics Framework felt that the reports compared poorly to other they were familiar with and did not want their child's progress reported in this manner again. In sum, the analysis of questions three and four indicates that parents decidedly preferred this reporting format and would like the Learner Characteristics format to be used again. The parents often explained their preferences; these elaborations are addressed in the third mode of analysis.

The third mode of analysis categorized the parents common responses into themes identifying specific aspects of the reports that they valued. Below are the identified themes and the associated terminology used by the parents. Selected parent responses have also been included to illustrate the essence of the message conveyed within the theme. The number beside the bracket indicates the number of parents out of 33 that made a comment related to the category. For instance, in the first category there were 19 parents who

communicated an appreciation of the informative nature of the reports. To express this the parents used phrases such as ‘the report identified her strengths and weaknesses’ or ‘the report gave specific information’. There seemed to be five prevalent themes which could be used to represent the parents' responses, the first four are positive and the last theme represents a concern regarding the reports.

#1 The reports were informative: relevant and specific (19)

Associated terminology:

identified strengths and weaknesses, was fully explained, offered insight, was explicit, was well detailed, gave specific information (regarding characteristics).

Quotations From Parents:

“I gathered more insight into her learning - gaining a broader perspective on how and why she learns and the ‘why fors’ of the areas of strengths and weaknesses. ... Reports for past schools - either too vague with only grading or too many pages of reports which makes one get lost in the words. I appreciate the structure of the report.” (Kathryn's class)

“We appreciate the specific references to John's achievements and to the areas which could be improved.” (Karen/Petra's class)

#2 The reports provided a holistic view of the child (7)

Associated terminology:

whole child, well rounded perspective, all aspects, balanced picture, broad picture

Quotations from parents:

“You have great insight into her personality and learning style. ... I feel that the report covered all facets of Sally's learning. It covered the “whole child” - not just the academic side.” (Kathryn's class).

“We preferred this report to previous reports as it gives a more rounded picture of Kevin as a learner.” (Karen/Petra's class).

#3 The reports provided useful information (5)

Associated terminology:

information was useful, able to help child, constructive

Quotations from parents:

“Provides constructive suggestions re: his weaknesses ...” (Kathryn's class)

“I like that he knows what he has to improve on.” (Kathryn's class)

“It also mentioned where there is room for improvement and what Jenny can do to make those improvements.” (Karen/Petra's class)

#4 The reports included students' self-evaluations (6)

Associated terminology:

opportunity to self-evaluate or rate their own learning

Quotations from parents:

"I also like that Linda has the opportunity to rate herself and take part in her own assessment." (Kathryn's class)

"We like to see that Rhonda was given the opportunity to evaluate herself and set goals for improvement." (Kathryn's class).

"We like Tom participating in the reporting and consider this to be very valuable." (Karen/Petra's class).

#5 The parents wanted to know relative standing/grades (11)

Associated terminology:

benchmarks, progress in relation to others, something tangible, the letter grade, objective and subjective evaluation

Quotations from parents:

"I liked the nice solid letter grade where you knew where the child stood. But I can see the value in this type of reporting although I would like to see something more tangible." (Karen/Petra's class)

"The report has given a grade mark plus comments which is good." (Kathryn's class)

"I like the anecdotal reporting procedures, Selby and I like to see her grades too. Perhaps continuing with grades and anecdotal is the way to go." (Kathryn's class)

The collective message conveyed by these categories indicates that the reports held a significant degree of validity for the parents. Categories 1 and 2 seem to indicate that parents valued the information communicated in the reports; the information in the reports was meaningful and provided a clear understanding of the child's progress which fostered certainty. Category 3 indicates that parents found the information in the reports useful. Parents also felt it was beneficial for their children to have opportunities to evaluate themselves as shown by category 4. The reports lacked validity in one identified capacity, they did not provide information regarding the child's relative standing.

The Negative Surveys

The four negative parent surveys were analyzed in order to identify the nature and source of the parents' discontent and to determine if their criticisms reflected upon the validity of the Learner Characteristics Framework. In addition, the principal from Karen/Petra's school submitted a critical response to the Framework which will also be addressed here.

Two of the negative surveys, one from each class were fair; the parents expressed both their appreciation of the report as well as their concerns. The concerns the parents expressed seemed related to their preference for a traditional style of reporting. The parent in Karen/Petra's classroom noted that the information she wanted to know about was not evident because Characteristics were used rather than subject areas to report progress.

I was concerned that some of the information that I was seeking was not the focus of the report. ... I prefer the subject-by-subject organization of last year's anecdotal because it gave me a sense of overall progress and 'completeness'.
(Karen/Petra's classroom)

This parent's comment regarding the 'overall progress and completeness' possibly indicates that the scope of the report was different from what was expected. In a similar manner to the earlier analysis of triangulation, her son's report was analyzed to see if there was an adequate representation of curricular areas and contexts to support the teacher's evaluative judgments. It was found that Karen/Petra made reference to the following curricular areas: Math, Reading, Spelling, Social Studies and Handwriting and in total used 24 substantiations to support their judgments. On the basis of this analysis a fairly comprehensive report of the child's progress was provided, thus it is questionable whether or not the source of the parents discontent was indeed the adequacy of the curricular scope. No other comments on this parents survey clarify this discrepancy, thus it simply appears that this parent prefers a traditional emphasis upon subject areas which seems to be the format she is most familiar with.

The parent from Kathryn's classroom who also submitted a fair but critical survey expressed two criticisms of the report. One criticism she expressed was that she felt the use of the Characteristics unfairly labelled her child.

I'm not pleased with the labels you are placing on the personality of the child. ... Anne was quite upset by the comments about empathy. She is very caring about others most times and to pick out one instance and explore it on her report card does more damage than good.(Kathryn's class)

This is the teacher's judgement of the child's empathy on the report:

Anne needs to show more empathy in the classroom.

Anne works well with her present group. When Anne was making her "Star Mobile", she co-operated with her peers; they made a plan before they started and took turns gluing and cutting. When the group was doing their "Line Dance Poster" they helped each other out when coming up with ideas; they shared the roles equally. Anne is proud of her accomplishments this year; her confidence shows. On a few occasions though, I have heard Anne putting down the work of other children in the class, making comparisons to her groups work. Anne knows the difference between right and wrong. She knows that this isn't acceptable. I would like her to show concern for all of her classmates, not just the students she is friends with. This is sometimes hard to do, but I'm sure she can handle it. I would like her to continue to work hard at being a positive role model for her peers.

Although the parent's criticism does not seem warranted on the basis of the teacher's report the purpose here was not to determine if such a criticism was justified and it is unlikely that such a decision could be made on the limited basis of this data. The intent here was an examination of validity in terms of 'certainty' and 'utility' which was not illuminated by this parent's comment; not only is it extraneous to the criteria of validity but it was also an isolated criticism of the characteristics.

This second criticism forwarded by this parent was her concern that grades on the reports would end. When asked to compare the Learner Characteristics report to others she was familiar with this parent responded:

I would not want the letter grades to end. We are in a competitive world. We must be able to compete for our jobs in adult life. I want to know if she is in trouble and needs a lot of help and I don't believe words will indicate the reality of the situation.(Kathryn's class)

Such an appeal is justified and reflects the need for reports to provide clear statements of relative standing. It is fair for parents to expect reports of progress to indicate if their child's achievement is acceptable, or if there is cause for concern as expressed by this parent.

The inflammatory nature of the other two negative surveys brings their credibility into question. Apart from her caustic remarks, one parent in Karen/Petra's classroom criticized the report for neglecting to address 'scholastic skills', she noted:

I prefer to know his scholastic achievements. Your job is to teach my child's scholastic skills. Please allow me to do my job of personal development.
(Karen/Petra's class)

Naturally, it is justified for parents to expect reports to convey information pertaining to the child's scholastic achievements; however, it is increasingly recognized that the emphasis of schools is no longer purposed merely towards filling the pupil with knowledge (Caine & Caine, 1991). Schools are now more broadly conceived serve the needs of society by developing individuals socially, emotionally, artistically, and physically in addition to developing them academically. This parent's comment may reflect a conceptual gap; what she holds as relevant and significant is no longer in keeping with what is more currently recognized as relevant and significant by the educational community. The implication here is a concerted effort to keep parents informed of the philosophical and theoretical changes occurring in education and include them in the process of change.

The other negative survey that lacked credibility was the result of an unforeseen event which occurred in Kathryn's class. The child forgot to take home the report based

upon the Learner Characteristics and therefore when the parent responded to the survey, she was basing her comments on the *graded* report (Kathryn sent home a graded report in addition to the characteristics report) rather than the report based upon the Learner Characteristics. This parent was unimpressed, overly zealous in her criticisms, and her comments were not germane. The remarks she made related more to the classroom situation and were very peripheral to addressing the reports, therefore her survey had little relevance to this analysis.

The principal from Karen/Petra's school, who was also the parent of a child in their classroom, submitted a written response addressing the Learner Characteristics as a frame of reference for evaluation. The principal credited the Learner Characteristics as "a very focused framework for the observation of certain things", but primarily he did not favor the Learner Characteristics Framework. His comments are noteworthy even though they do not relate to the inherent nature and value of the Learner Characteristics, but address the manner in which the framework was implemented. The principal felt that the student reports were too negative, which he observed, was due to the fact that the parents were encourage to choose two characteristics to be reported on that may or may not have been appropriate to the child.

...it was possible for parents to choose two characteristics for which you were not able to provide much in the way of 'can do' comments that would have an overall positive picture or tell them much about their child. ...While some of the reports were terrific and positive, it was a gamble that depended on parents making 'the right choices'.

The principal's comment indicates implications for using the Learner Characteristics Framework. It may have been more suitable for parent to choose two characteristics after one reporting period of using the characteristics. This would have familiarized parents with the Learner Characteristics as well as provided them with an understanding of their child in

light of the characteristics. This would have been a more sound basis for parents to select those characteristics most appropriate to their child.

In summary, the negative parent surveys, which represented a definite minority of the responses, seemed to criticize the movement away from more traditional reporting practices; the negative responses and may be summarized as follows:

- subject area focus was preferred to the Characteristics
- grades should continue to be provided
- the purpose of schools is to develop scholastic skills versus personal development

Teacher Questionnaires

The teacher questionnaires were examined for responses that either indicated validity or a lack of validity. In total, 29 responses were identified: 22 responses affirmed the validity of the Learner Characteristics Framework, and 7 responses indicated a lack of validity. In order to identify these responses the two aspects of validity defined for this study were considered: certainty and utility. Responses that signalled certainty implied that the teachers or the students (as seen through the teacher's eyes) gained insight and understanding into learning. Responses signalling utility were related to the facilitation of instructional, assessment, evaluation, and reporting decisions. When identifying the responses signalling validity, it became apparent that there were two contributing factors: one factor was the unique nature of the **Characteristics**, and the other was the way Learner Characteristics Framework was **Implemented**. The 'characteristics' were unique as a focus for evaluation because they are global and process-oriented qualities of the learner, rather than finite, content-centered skills of the curriculum. The *way* that the Learner Characteristics Framework was 'implemented' also contributed to validity primarily because the evaluative criteria (the characteristics) were shared with the students and kept at a high and meaningful level of consciousness. The students were continuously talking about the characteristics, exemplifying them, applying them to various contexts such as story characters, and evaluating one-another on the basis of the characteristics. Thus it was a combination of 'the characteristics' as well as the way in which the Learner Characteristics Framework was implemented that contributed to validity.

Evidence of Validity

Appendix 4, Teacher Responses Indicating Validity, contains all responses that signalled validity. The responses are grouped and subdivided into the following four categories which will be addressed individually in the discussion below:

Category I - The Characteristics: Certainty

Category II - The Characteristics: Utility

Category III - Implementation of the Framework: Certainty

Category IV - Implementation of the Framework: Utility

Category I - The Characteristics: Certainty

The teachers' responses in this category express how the unique nature of the characteristics seemed to provide a valued understanding of, and certainty in, their students' learning. The teachers noted that greater insights were gained, and a better overall understanding was accessed, through the characteristics. The child was revealed more 'personally' and the characteristics seemed to foster fresh understandings of learning that may otherwise not have been afforded. In addition, the characteristics seemed to indicate *reasons why* some students were successful and others less so; blocks to learning were revealed in new ways:

KATHRYN: It helped to identify why the successful learners were successful and why other children were not. ... I knew what characteristics made them successful and which ones they hadn't developed.

PETRA: it helped me to understand why some children were not very active participants in certain activities or visa versa (why they were).

The characteristics were also credited as having relevance to life beyond the four walls of the classroom:

KAREN: (the characteristics) contributed to a more detailed picture of the overall child both in and out of school... I felt the evaluations made were an indication of how a child might do generally in life and not just in school.

Category II - The Characteristics: Utility

The nature of the characteristics provided useful information for instructional directions and approaches. As a frame of reference for evaluation, the characteristics implied instructional approaches that were somewhat different from what was typically used by the teachers, namely greater responsibility was given to the students:

KATHRYN: In order for the characteristics, in each child, to develop, I had to change my method of instruction to a much more student centered approach. I had to let go of my 'control' over the students in order to let them explore and discover on their own. I was no longer on 'stage', so I had ample time to sit back and observe each child in different situations.

PETRA: ...I had to think about setting up situations in which the kids could demonstrate certain characteristics

KAREN: It reminded me to give more opportunities for decision making to the students and to let them do more planning, organizing without my input.

It is significant to note that although the two aspects of validity are made explicit by distinguishing between utility and certainty - it is also somewhat arbitrary to separate them in this manner; it was the understanding gained and the certainty realized that resulted in utility. The teachers might recognized, for instance, that a child's lack of success was due to a deficiency in 'strategicness', this insight then provided useful and relevant information that transferred to instruction:

PETRA: the characteristics made it easier to pinpoint weaknesses and make recommendations on the report card.

KATHRYN: I could help them specifically with an area they were having difficulty in. I knew what characteristics made them successful and which ones they hadn't developed.

Category III - Implementation of the Framework: Certainty

The implementation of the Framework contributed to the both the students' and teachers' certainty. Implementing the framework engaged the students in a process of understanding the characteristics which enhanced their ability to recognize their own strengths and weaknesses as learners:

PETRA: They were able to see for themselves what their strengths were and what areas they could improve in, and they were very honest with themselves (in terms of the characteristics) ... I think they felt comfortable about knowing what was valued - they were finally able to put a name to some of the aspects of class life they had already experienced.

The Framework was also implemented in a manner that was very **open** which contributed to the students' certainty. The students were explicitly aware of what was expected and how they were doing in light of this. For instance in Kathryn's class, the students had access to assessment data and were encouraged to consult this information. During a conference dialogue, Kathryn described how her students were very curious and often could be seen at a large chart containing the daily assessment sheets that documented behaviours corresponding to the characteristics. With access to what is typically privileged information, it was not surprising that students gained a much greater understanding of what was important and relevant. This is evident in the following comments made by students in Kathryn's classroom who responded to the survey she had initiated:

What did you learn from doing the study ?

- ...what you needed to work on because instead of doing your own brainracking to find out, it was written down ...
- In my report card I could see what I needed to work on

What did you like about the study ?

- Well I liked it because you got to see what your report card was before you even got it. And you got to see what you were doing and how you were doing it.
- I liked how we could see how we were doing...
- It tells you what you need to work on. Also on your report card if it said you were hard working for the study it tells you what you were hard working at.

The certainty of the teachers was fostered by the Framework's implementation as it pertained to the collection of assessment information:

PETRA: it was easier to collect evidence using the characteristics. Unlike a checklist, the incident in which the characteristic had been demonstrated, had to be fully described and was therefore committed to memory - for use in reporting. Checklists don't provide that type of evidence.

It appears that certainty was realized because assessment involved both interpreting and describing the behaviors by substantiating them in the immediate context in which they occurred. Thus, when it came time to report such behaviours it was evident that the teachers felt a greater sense of credibility and accountability:

KAREN: It (the framework) focused my observations, I was more consistent in recording my observation and the characteristics where the child was successful were easy to report on - lots of specific evidence.

KATHYRN: I knew what to report on. (emphasis indicated by Kathryn)

Category IV - Implementation of the Framework: Utility

The final indication of validity is provided by the teachers' responses in category IV. The implementation of the Framework fostered validity by bringing a greater utility and purpose both to the students learning as well as to the instructional-evaluative process. The most significant aspect of the Framework's implementation was sharing the evaluative criteria with students which resulted in learning experiences that were meaningful and purposeful:

KATHRYN: Our learning became very meaningful. Everything we did had an additional purpose: "I want to see how thoughtful you can be by thinking about your ideas with your group." The children were much more involved in their learning.. They took their responsibility seriously. They were concerned about the development of the characteristics in themselves. Thus, they became adept at evaluating how they learn.

The utility and purpose that was realized within the instructional-evaluative process may be ascribed to the fact that the Framework was implemented specifically to uphold coherency. The teachers were able to effect 'enlightened engagements with future learning experiences' because the Framework was implemented in a coherent manner. The characteristics were valued and represented in each step of the instructional-evaluative process; the teachers demonstrated and maintained a consistent relationship between what was valued, what was taught, what was assessed and what was reported. Consequently, each aspect of the instructional-evaluative process generated useful sources of information that implied directions for a subsequent step: observations were focused upon the characteristics, such observations necessitated opportunities for students to demonstrate the characteristics (instruction was informed), which then facilitated assessment and evaluation on the same basis. The cycle continued whereby instructional intervention was responsive to evaluation. Thus by satisfying the criteria of coherency, utility was established and validity upheld.

In sum, the teachers responses confirmed that validity was satisfied to a significant degree. The certainty and utility that were evident may be attributed to the unique nature of the characteristics, and the manner in which the Learner Characteristics Framework was implemented. The teachers also freely expressed their concerns on the questionnaire. These responses indicated possible sources of invalidity and are addressed in the following discussion.

A Lack of Validity

The responses below indicated that the Learner Characteristics Framework had a lack of validity.

6. *What impact did the framework have on reporting ?*

PETRA: - problems arose when we had not been able to collect evidence on those characteristics chosen by the parent - it was difficult then to remain positive in our comments.

7. *What are your perceptions regarding the parents' response to this framework ?*

KAREN: Some (parents) felt that we did not give enough information on 'academics'. Most seemed to think that they were similar to past reports. I think if you were moving from marks to this type of report there would be significant differences. Our parents are used to anecdotal and have never had marks for their child.

PETRA: some felt that they knew these things about their children and wanted more academic progress reported

15. *Did the framework have any positive and /or negative effects on evaluation?*

KATHRYN: Risk taking was hard to evaluate as was self -esteem. Intuitive judgements helped me to evaluate.

KAREN: When evaluating a child within a specific category - I sometimes lost the positive 'can do ' philosophy if the child was not displaying the characteristic because I was focussing on a characteristic chosen by a parent and it may not have been one which showed positiveness or growth.

16. *Did the framework have any positive and /or negative effects on reporting ?*

PETRA: if anything we may not have given enough information about academic progress... perhaps having a different focus for writing reports (the characteristics) made it appear that we were leaving out some important areas.

KAREN: some reports tended to be rather negative in tone... Those reports of unsuccessful students were very difficult to write. I would have rather chosen characteristics where the child was successful to focus on and merely mention one of the others as an area to work on next term.

These responses refer primarily to the *implementation of the framework* as a source for the lack of validity. In particular, it was the efficacy of parents choosing the characteristics to be applied to the evaluation of their child that was brought into question. Karen and Petra noted the difficulty of collecting, assessing and evaluating the child on a basis of those particular characteristics chosen by the parents - rather than those that were more naturally demonstrated by the child (Petra #6, Karen #15). It was this factor that seemed to compromise certainty and utility; it was difficult for the teachers to gain an understanding

of the learner if an inappropriate characteristic had been selected for the process of evaluation, nor was useful information provided on such a basis.

Another concern expressed by Karen and Petra was the lack of academic reporting. It was not evident from the previous analysis (triangulation) that academic reporting was neglected, nor was this a consistent criticism expressed by the parents on the survey. Nonetheless it was a real concern for Karen and Petra. Perhaps they would have perceived the reports as having greater validity, and themselves as being more certain, had there been a greater emphasis placed upon academic reporting. It is necessary that academic progress be communicated to parents; however, as indicated earlier, it is just as important to recognize that the responsibility of schools is no longer limited to 'transmissions of knowledge'. The good of society as well as the individual is the more broadly conceived as dependent upon the education of the whole individual. Therefore, it is essential that representation of the 'curriculum' on reports does not occur at the expense of the characteristics, those traits which not only enable the child to master the curriculum, but also to respond to novel challenges and thrive within unpredictable settings.

Another source of invalidity was evident in a concern expressed by Kathryn:

KATHRYN: Risk taking was hard to evaluate as was self-esteem. Intuitive judgements helped me to evaluate.

Kathryn's comment conveys the uncertainty she felt in her ability to interpret behaviours that corresponded to risk-taking and self-esteem. Kathryn's concern is significant, and suggesting that some characteristics are interpreted more easily than others. This recognition has important implications in the consideration of validity. Behaviours indicative of risk-taking and self-esteem seem to be more intrinsically based and individual than are behaviours corresponding to the other characteristics. It seems inevitable then, that

it is necessary to rely upon *intuitive judgments* more extensively in order to evaluate risk-taking and self-esteem. Unfortunately, intuitively based judgements engender considerably less certainty because they are extremely difficult to substantiate with behavioral evidence. Unless compensated for, validity is compromised in such circumstances.

Kathryn undertook a compensatory action in the evaluation of risk-taking that had positive results. Kathryn expressed at one time how she felt there was no consistent bases upon which to determine what constituted a risk from one child to another. Thus, in order to validate her original hunches Kathryn sought a further validation by actively engaging her students in the process of evaluating risk-taking. After discussing and describing risk-taking with her students, Kathryn asked them to carefully consider what activities were personally risk taking for them. Further discussions ensued and lists were compiled. Kathryn remarked on her surprise at learning what students identified as a risk; there was considerable variability from one child to another. From this point on it became a part of the evaluation process to confirm judgement regarding risk-taking by consulting students. The result for the students was a much broader understanding of risk-taking, as well as a heightened awareness of themselves in terms of risk-taking. In sum, Kathryn responded to a situation where a lack of validity seemed evident by **actively engaging students** in an ongoing **process of validation**.

Summary of Validity

Did the Learner Characteristic framework satisfy the criteria of validity and thereby provide teachers and parents with a clear understanding (certainty) of the child's learning progress such that learning could be supported in a worthwhile manner (utility) ? To reiterate, Messick (1989) emphasized that validity was more appropriately viewed as an evolving property, one that existed in 'degree' versus 'all or none'. Likewise, the Learner Characteristics Framework was not perfect; however, it did satisfied a substantial degree of validity. From the analysis of the student reports, parents surveys, and teacher questionnaires it was evident that the Learner Characteristics Framework engendered certainty and provided utility; on this basis it would appear that the Framework has the potential to make a worthwhile contribution to the educational community.

Chapter 6: Conclusions

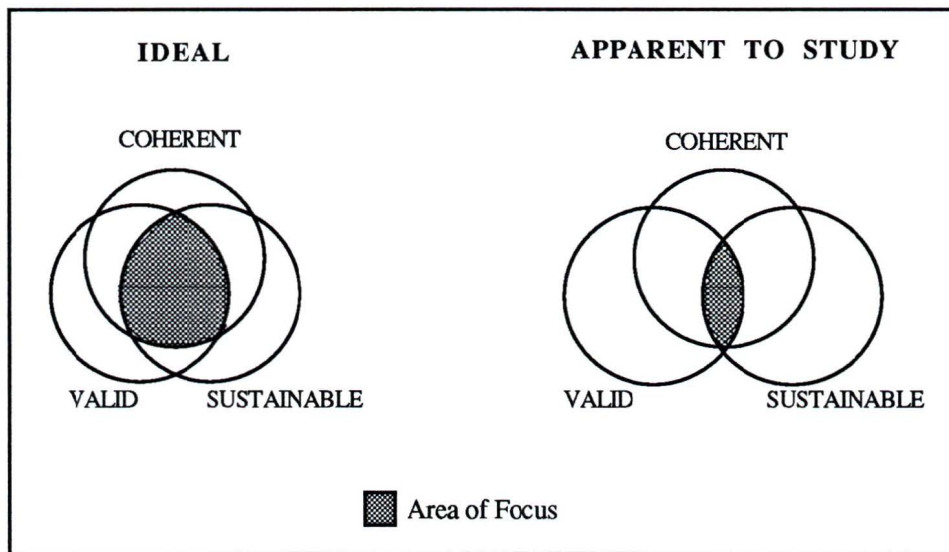
To what extent did the Learner Characteristics Framework offer a process of evaluation that was coherent, sustainable, and valid ?

This chapter provides a retrospective summary of the Learner Characteristics Framework in terms of the research question, and considers the impact and implications of the Framework beyond the parameters defined by the purposes of this study. The criteria coherency, sustainability, and validity were analyzed and discussed individually in the previous chapter, here they will be summarized collectively. The first part of this chapter re-addresses the research question by determining whether or not the Framework was conducive to upholding an equitable, interdependent relationship between the criteria. The second part of this chapter presents the impact and implications of the Framework upon 'teachers and instruction' and 'children and learning.'

Part I: The Relationship Between the Criteria: Reciprocity and Tension

Did the Learner Characteristics Framework provide a framework for evaluation that maintained a balanced, interdependent relationship among the criteria? That is, was reciprocity or tension evident between coherency, sustainability, and validity? In Figure 6.1, the diagram on the left depicts an ideal relationship between the criteria, one that is balanced and interdependent. The diagram on the right illustrates the nature of the relationship between the criteria that was represented by this study.

Figure 10: The Ideal and Apparent Relationships Between Coherency, Sustainability, and Validity:



A process of evaluation representing an ideal relationship between the criteria is one where there is considerable and equal overlap between coherency, sustainability, and validity. In such circumstances, one criteria does not take precedence over another, rather equity is established and the three separate criteria function mutually to provide **one** focus. It was mentioned earlier that in order for an idealistic or balanced relationship between the criteria to exist, the instructional-evaluative process must be cultivated within an educational

program where sound and well-informed goals exist. For instance, it is likely that tension would characterize the relationship between coherency and validity if the instructional-evaluative process were based upon goals that did **not** represent 'what society values'. In the presence of sound educational goals however, the potential for an idealistic relationship to exist between the criteria is strongly predisposed yet not guaranteed.

To what extent did the Learner Characteristics Framework represent an ideal relationship between the three criteria of a rational process of evaluation? Predictably, the *reality* of implementing the Learner Characteristics Framework did not completely resolve itself in this idealistic manner. The diagram on the right hand side of figure 6.1 shows an equitable distribution and reciprocal relationship between coherency and 'sustainability and validity'. The relationship between sustainability and validity is characterized by both reciprocity and tension; as the diagram illustrates, there is some mutual space shared by sustainability and validity, but it is considerably less than that which is represented by an idealistic relationship.

Within the context of the Learner Characteristics Framework, the relationship between coherence and the other two criteria was one of reciprocity. That is, coherency facilitated an evaluative process that maintained a focus upon *what was valued*. Sustainability, which indicated limit the number of evaluative behaviours, helped to prevent any proliferation of behaviours. Likewise, validity predisposed the evaluative process to be focused upon those behaviours most conducive to fostering learning. In essence, the three criteria were predisposed to being mutually beneficial to one another within a framework such as the Learner Characteristics. First, the nature of the Framework was such that it contained eight single behaviours reflecting what was to be valued, taught, assessed, and evaluated. This limited number of behaviours which were consistently represented throughout the instructional-evaluative process, established a mutually

beneficial relationship between coherency and sustainability. Secondly, the Learner Characteristics Framework was representative of: *what the teachers valued and felt was worthwhile to develop in their students* - reciprocity existed between coherency and validity. In other words, coherency ensured 'Learner Characteristics' were consistently *maintained* as the central focus within all aspects of the instructional-evaluative process.

The relationship between 'sustainability' and 'validity' was characterized by reciprocity as well as by tension. Reciprocity existed during the ongoing instructional-evaluative process; the Learner Characteristics Framework provided a limited number (sustainable) of relevant and significant (valid) behaviours upon which to base the instructional-evaluative process. The teachers found that observing, assessing, evaluating, and recording these behaviour was instructionally feasible, and therefore sustainable. The attention and focus placed upon these behaviours, rather than that may have been less germane, facilitated validity - certainty, accuracy, and utility were provided.

The balance between the criteria of sustainable and valid became somewhat precarious during the writing of student reports. During this time, sustainability and validity existed in tension. In spite of the fact that the teachers limited each child's report to four characteristics, the effort to convey a comprehensive and well substantiated report in order to uphold validity, tended to do so the expense of sustainability, that is, writing the reports tended to be a lengthy process. This tension was especially evident in the case of Kathryn writing her students' reports. In comparison to Karen and Petra, Kathryn spent approximately four times longer to write each student's report, 120 minutes in comparison to 30. However, Kathryn's reports were much more comprehensive and her evaluative statements substantiated to a much greater degree; in general they appeared to more adequately satisfy the criteria of validity. When writing student reports, it seems reasonable to question whether or not it is feasibly possible to sustain, **and** adequately

satisfy validity. Is it inevitable that one criterion be satisfied to the detriment of the other? The apparent trade-off between sustainability and validity in the writing of student reports is a dilemma for future consideration that requires both careful and creative consideration. In accommodating both sustainability and validity it seems especially important to ensure that validity is adequately satisfied. If validity is compromised for the sake of sustainability, a potential trivialization of reporting (that could also spread to the composite instructional-evaluative process) may result. Kathryn's second set of reports based upon the Learner Characteristics Framework represents one possible solution; by using an abbreviated annotated style of writing, she was able to provide comprehensive, well-substantiated judgements of student progress.

Figure 10: Kathryn's Second Term Reports

Alice continues to be an industrious learner:

- always quiet during her personal reading program but finds it hard to concentrate read 1 novel this term)
- listens to announcements attentively and takes notes
- gets down to work without stalling even when a substitute is teaching
- completes her spelling list and chart every week
- stays on task for the duration of computer time
- completes math assignments during class time
- completes all of her art projects, and many on her own time
- on task during "Drafting": she loves to write
- finishes runs to Ella Beach non-stop
- finished these projects: Ukrainian diorama, Vertebrate classification chart

In sum, the Learner Characteristics Framework provided a relationship of reciprocity, one where the criteria were mutually beneficial *during the instructional evaluative process*. An exception existed where tension was evident between the criteria of sustainability and validity *during the writing of student reports*.

Impact and Implications

"Changing assessment strategies always unlocks a very complicated agenda: new ways of describing student work are invented (and) new pedagogies are constructed ...

(Robert McTaggart, 1990)

McTaggart's words may be aptly applied to the impact that the Learner Characteristics Framework had upon both teachers and students; ways of teaching and learning were transformed with positive results. It was not so much that the Learner Characteristics Framework in and of itself contributed to these positive outcomes, but perhaps more significantly it was the manner in which the Framework was implemented that effected these results. In the mind of the researcher, the most significant impact of this study relates to the ideal conditions that were created and essential to implementing a rational process of evaluation. In particular it was the intersection of the Learner Characteristics Framework and the Criteria which seemed to produced particular conditions that were ideal for restructuring the instructional-evaluative process, and which predisposed the success of this study. By providing a discussion of teachers and instruction and students and learning, these particular conditions will be acknowledged, specified, and applied as implications for the future.

Teachers and Instruction

Overall the Learner Characteristics Framework appeared to have a positive influence on instruction; as shown in the previous chapter, the teachers were able to successfully satisfy the criteria of coherency, sustainability, and validity. When possible reasons for the Framework's success are considered, the conditions in which it was implemented come readily to the foreground. For instance, the teachers were volunteers, were theoretically aligned to the evaluative approach, and were more than willing to contribute their energies towards the study's success. In light of this, one might fairly question the ability of the Learner Characteristic Framework to achieve the same success within the larger educational community where any or all of these conditions may not exist. However, in considering the generalizability of the Framework, or how it might be successfully applied within a larger population, it is important to emphasize that these conditions were not just pre-existing, but were *created*. Thus the potential of the Learner Characteristic Framework's to make a worthwhile contribution to the broader educational community is hinged upon creating similar conditions.

Creating Ideal Conditions: Three Levels of Involvement

The nature of the study, being an intersection the Criteria and the Characteristics engaged the teachers in a particular manner. It was necessary for the teachers to understand the criteria and characteristics in order to apply them within their classrooms. Therefore the teachers were engaged in the implementation of the Learner Characteristics Framework on three levels of involvement: a theoretical level, a constructional level, and a practical level. To involve the teachers on a *theoretical level* the criteria of coherence, sustainable, and validity were described and their significance to evaluation was made

explicit. The criteria seemed to lay the theoretical groundwork that clarified some evaluation complexities and inconsistencies that the teachers were grappling with. For instance, Kathryn described a frustration with grading student learning, yet was hesitant to make the change because of the unknown parent reactions she might get. What would parent say if she went to an anecdotal style of reporting, and how would she justify such changes that felt 'intuitively right' ? The criteria made sense to the teachers, they clarified issues and justified changes. And, once the teachers were fully cognizant of the criteria and how the criteria could conceivably be accommodated by the Learner Characteristics Framework, they had a vested interest in the success of the Framework. Involving the teachers on a theoretical level led to their involvement on a *level of constructing* new approaches to teaching. Once the criteria and the characteristics were clearly understood it seemed as though the teaches would, metaphorically, bump into inconsistencies within their own practice which made it necessary for them to adapt their instructional approaches. This is seen in the responses on the teacher questionnaire:

Number 13 Did the framework have any positive and/or negative effects on instruction ?

Kathryn: It forced me not to lead their learning. Instead I facilitated experiences and became progressively unnecessary.

Number 3 : Did the framework help you to make instructional decisions ? If so how ?

Karen: It helped me to realize that if I wanted the students to display these characteristics I would have to provide the types of activities which enabled them to display them.

The teachers were not just given directives for adapting their practice to accommodate the criteria, rather their insight and experiences were actively sought out in order to help them identify ways and means of modifying their instructional approaches. It was the teachers who constructed their own means of upholding the criteria and the characteristics; new instructional approaches were conceived and developed. Naturally, these instructional approaches were applied within the teachers own classrooms and hence their involvement

was also established upon a *practical level*.. It was the involvement of the teachers on these three levels that resulted in ideal conditions for implementing the Learner Characteristics Framework. Combined, these levels of involvement replaced uncertainty with *openness*, *trust*, and *opportunity* which were key to the creative and responsible use of the Learner Characteristics as a framework for evaluation. For instance, although there was no pre-planned, success-guaranteed, instructional activities that would engage students in learning situations which would guarantee demonstrations and development of the characteristics, the teachers were highly aware of the criteria which hung in the balance: coherence. In such circumstances, if the students were not demonstrating particular characteristics the teachers readily took responsibility for instructional changes indicated and applied themselves creatively to facilitating learning experiences that would require the characteristics to be manifested: 'new pedagogies were constructed'. The implication to be drawn here is that instructional-evaluative changes may be most successfully implemented if the individuals who will be applying these innovations are involved on more than just a practical level only. If engaged on theoretical, constructive, and practical levels, ideal conditions are produced and creative, responsible uses of such innovations are predisposed.

Students and Learning

The positive impact that the Learner Characteristics Framework had on student learning may also be attributed to the ideal conditions that were created by the intersection of 'the Learner Characteristics Framework' and 'the Criteria'. Specifically, it was the criteria of coherency that fostered the ideal conditions of *openness* and *trust* within the learning environment. The criteria of coherency required that the teachers consistently demonstrate that the Learner characteristics were valued in all aspects of the instructional-evaluative process. In order to do this it was necessary for the teachers to communicate and share the evaluation criteria, Learner Characteristics, with their students. The sharing of evaluative criteria was not just a single isolated experience whereby Learner Characteristics were presented and defined; rather the teachers engaged their students in a 'process of making explicit' each Learner Characteristic. After all, it would be somewhat inconsistent to value characteristics such as 'thoughtfulness' but deny students the opportunity *to think* about what being thoughtful might entail. Thus, the process of explicating the criteria, which initially was an introduction of the characteristics, also involved having the students generate plausible examples of the characteristics. Students in Karen and Petra's classroom made posters to demonstrate their understanding of what the characteristics meant. The process of explication did not end at this point, this was only the beginning of the students understanding and involvement with the criteria that would be applied to the evaluation of their learning. Ways of being generative or a risk-taker, for instance, were re-invented when applied in various settings such as writing, art, or giving a presentation. It soon became apparent that the Learner Characteristics, although finite in number were infinite in the permutations and combinations in which they could be expressed and applied. Thus, the ideal conditions of openness and trust were *created* by communicating the evaluation criteria with students, and then *maintained* by involving students in an ongoing process of making these criteria explicit.

The criteria of coherency was not only conducive to the creation of ideal conditions, but it was also responsible for the maintenance of trust and openness in another capacity. Satisfying the criterion of coherency required that consistent demonstrations were made between what teachers valued and other aspects of their instructional evaluative process such as teaching, observing, assessing, recording, and rewarding behaviours indicative of Learner Characteristics. Under these conditions students were willing to assume a greater autonomy for their learning because they were aware of the evaluative criteria (Learner Characteristics), **and** they witnessed or experienced these same criteria being consistently applied to their assignments; trust was engendered, and vitality ignited. In Kathryn's classroom, students had open access to the ongoing assessment information that was applied to their learning. Kathryn described how the students' curiosity led them time and again to the large pocket chart containing this assessment information and how they were absorbed by the information conveyed of their learning. Students became highly aware that the Learner Characteristics *truly* were the evaluation criteria, and this awareness was blown into action and manifested in vitality ! Kathryn exclaimed how students would see the assessment information (much of it was very positive), then return reflectively to their desks, and then energetically apply themselves in creative and effective ways in order to demonstrate the Characteristics. Thus openness and trust were the ideal conditions created by satisfying the criterion of coherency. When students are: engaged in a process of explicating the criteria applied to their learning, provided with opportunities to uniquely demonstrate these criteria, and dignified with the responsibility to do so, then the learning ensues with vitality. Not only were new ways of describing student work invented, and new pedagogies constructed, but so too were new ways of learning divined and manifested.

To conclude, the Learner Characteristics Framework might be described as a small but flexible repertoire of relevant behaviours upon which to base the instructional evaluative process: it offers behaviours that are finite in number, yet infinite in the permutations and combinations in which they may be effectively applied. The criteria of coherence, sustainable, and valid promoted the successful implementation and use of the Learner Characteristics Framework; in essence a combination of the Criteria and the Characteristics created ideal conditions in which to effect this study and apply the Framework. The ideal conditions of openness and trust were conducive to engaging the teachers on three levels of involvement: a theoretical level, a constructional level, and a practical level. This involvement resulted in the teachers mindful, creative, and responsible use of the Framework. The criteria of coherency was key to the creation of the same conditions within the classroom which also had a positive impact on students. The process of making the evaluative criteria explicit and consistently applying these criteria within all aspects of the instructional-evaluative process engendered students' trust. Students were able to take greater responsibility for their own learning in this environment. In essence, in an environment where openness and trust are fostered, uncertainty regarding expectations is replaced with an 'ability to respond'; under these ideal conditions, the students responded to learning with much greater vitality. Given that the same ideal conditions are **created**, it seems inevitable that *potential* of the Learner Characteristics Framework to make a worthwhile contribution to the broader educational community could well become a *reality*.

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Appendices

Appendix 1: Sample Conference Dialogue

Jan. 20/92

PETRA/KAREN

Observations in general:

- things are going very well; seems easier to observe and assess students, there is a specific focus
- there will be ample information to write about for the report cards; using the little observation sheets that I had used for university students - these will make writing the reports very easy because everything is right there
- assessment: using a recipe box, card for each child, class record sheet also used to monitor who is/is not being observed and which characteristics are being observed most commonly; teacher aide is helping out; time spent is approximately 15-20 minutes per day
- instruction: are using journals to have students discuss themselves in terms of knowledge and self-esteem; made an enlargement of the characteristic chart sent home to parents and laminated it, it is visual to everybody; students are starting to use characteristics in their vocabulary - ie. "the character in the story was not a risk-taker"; students making large posters for the classroom on each characteristic, the posters define the characteristic and give examples of the behaviour, Karen shared this one: for Industrious a group of students drew a man cutting toothpicks from a tree with a pen knife (yes, i'd say thats industrious all righty !)

Parents:

- 4/?? parents decided not to be involved with the study
- order of interest of the characteristics:
risk-taking, strategic, thoughtful, industrious, generative, empathy

Concerns:

- incorporating the characteristics into instruction, and needing some more ideas

Sue's Comments

- *everybody is so positive, great!*
- *keep a list of any ideas you generate for incorporating the characteristics with instruction, I'll note them in the next conference log i send.*
- *remember we agreed upon the following three objectives for this reporting term; the students would be able to:*
 - * *define the characteristics*
 - * *give examples of behaviours indicative of the characteristics, and*
 - * *be able to identify which characteristics are a strength and which they'd like to improve*
- *please indicate the order of popularity of the characteristics as chosen by the parents as Karen and Petra did.*

FEBRUARY 3, 1992

KATHRYN

- In general everything is going very well !

- Kathryn keeps trying to find ways to change instruction so that the students can demonstrate the characteristics. For instance, in an art lesson where students were in small groups making large posters to advertise an upcoming line-dance, instead of avoiding chaos by keeping instructions very controlled, Kathryn simply indicated *what* she would look for on the posters - she never told the students *how* to go about creating the posters. Instructions were very simple and then Kathryn stood back to watch giving herself this opportunity to see what would happen and to observe the characteristics. The students had to go through several problem solving sequences that may seem very simple, but are indicative of them taking greater responsibility, having choices and making decisions: they had to figure out how to get the large paper off the rolls by themselves(thoughtful), they made mistakes and learned from their mistakes in trying again when necessary(thoughtful), they were more careful in their first attempts at the posters by drafting them in pencil first (strategic).

- As instructional methods are changed in order to provide opportunities for the students to demonstrate them, the students are learning to rely on one-another to a greater degree; they are becoming more inter-dependent.

Instructional Ideas:

- Learning logs and Star Trek Homework (see attached)
- Peer evaluations and self-evaluations using the small characteristics observation sheets are apart of the everyday context; this seems to encourage the students to use the language of the characteristics to a greater extent as well.
- Uses the Characteristics as a part of language: ie. when a child asks a question and Kathryn might reply back: "If you were Strategic I bet you could figure it out yourself. "

Concerns

- Self-esteem: It seems difficult to actually observe demonstrations of self-esteem, Kathryn feels she's aware of a child's self-esteem on an intuitive level, rather than actually seeing it.

Intuitions are based on something, and it seems that they are important to trust. Perhaps following your intuitions back to their origins would provide the data that is necessary to substantiate your intuitive judgements, like asking yourself: "How do I know 'Sandra' is suffering from low self-esteem?"

- *To tap into self-esteem a little more directly she is going to try doing a self-esteem survey; there are some in the Primary Program Document.*

- Risk-taking: The environment in Kathryn's class is really safe and students don't seem to hesitate to jump in and participate, making it somewhat difficult to gather data on risk-taking.

- *A possible solution we discussed was talking to the kids and having them generate a list of things that would be risky for them as it relates to school and their peer group.*

KAREN & PETRA

- In general everything is going very well, especially with the students.
- The students are increasingly using the characteristics especially when they have their weekly class meetings.
- The students have completed their characteristic posters and have presented them to their classmates.
- Karen and Petra use the characteristics in their morning message on the blackboard.

Concerns

- In gaining a general sense of how the students manifest the characteristics Karen and Petra have been gathering assessment data on all of the characteristics. However, when they looked back (class assessment chart) to see whether or not they were gathering enough data specifically on the characteristics that the parents identified, they discovered and felt that these particular characteristics were not adequately represented. Therefore, they feel that it is necessary to now start focusing specifically those characteristics that the parents identified. A concern with this is how to keep track of which two characteristics apply to each child.

In our discussion, Karen and I thought that one possible solution could be to tape the two characteristics that the parents want information on to the child's desk. They would be readily visible to both the child and the teachers. A discussion with the students prior to this procedure could help them to understand its purposes, keep the evaluation agenda out in the open, and even possibly be a means of the students self-evaluating their work in terms of these characteristics.

- Risk-taking: In talking with two children that performed a piano presentation for their classmates, Karen found out that what she thought was a risk for both of them turned out only to be a risk for one. Her conclusion was that observation alone does not seem to be sufficient in ascertaining that a given behavior is a risk; the child's own interpretation of the behaviour seems to be another necessary measure when it comes to making judgement on risk-taking.

- A query of Karen's, (precipitated by a letter from a parent who seemed to lack empathy in her harsh words): "How generalizable is the 'characteristics process' to all teachers?"

Appendix 2: Parent Letter and Consent Form

January 7, 1992

Dear Parents,

Happy New Year !

I am involved in a very promising research study called *The Characteristics of a Successful Learner* which addresses the assessment, evaluation, and reporting of your child's learning progress. I am writing to explain some of the changes I will make, and to request both your involvement and your consent to have your child involved. The purpose of these changes is to enhance the quality of reporting your child's progress. The primary goal is to ensure that the report cards are more meaningful to you, your child, and myself - I anticipate some very positive results ! Let me begin by explaining the changes I will make.

The format of the report card will be very similar to last term, I will provide you with a written report which describes your child's progress. Last term the report was organized in terms of the five curricular goal areas as well as subject areas, for instance *Intellectual Development* and *Math* . For this term, rather than describing your child in terms of curricular goals and subjects, I will use the Characteristics of a Successful Learner to describe your child, they are as follows:

Knowledge	Industrious	Risk-taking
Self-esteem	Generative	Strategic
Thoughtful	Empathy	

These characteristics have been defined in detail for you on a chart that I have included with this letter.

The Characteristics of a Successful Learner have been derived from "The Educated Citizen" which is an informed statement of mission that was mandated for all schools by the British Columbia Ministry of Education. I believe that these characteristics have a lot of merit; they are applicable not only to the child in school, but also to the success of any individual whether they are: a parent, a lawyer, a waitress, a mechanic, a farmer, a business person, etc. My goal is to develop these characteristics within your child, as well as to help him/her to understand hem/herself in light of these characteristics. For instance, your child will be able to recognize his/her strengths as well as those characteristics which he/she needs to develop in order to attain higher levels of success.

I would like to involve you in this process as I recognize that you know your child very well and are a valuable resource. The process of evaluating and reporting your child's progress in this manner for me involves collecting and recording evidence of your child's behavior that is indicative of these characteristics. Each week I will make brief notes on every child in our classroom in each subject area in light of the characteristics. You can readily see that this will be a monumental task unless I limit the amount of information that I collect on some meaningful basis. Thus, I will report only on those characteristics that contribute to your child's success as well as any characteristic that needs to be developed in your child in order to further his/her learning success. I anticipate reporting to you on four to six characteristics. In doing so, I would like to be sure that I address your concerns. Perhaps you would like to know how 'thoughtful' or 'empathetic' your child is, or perhaps you have a concern that your child needs to become more 'industrious' or 'strategic'. After reading the information provided on the Characteristics, please take some time to carefully consider any two of the characteristics that concern you, or that you are interested in regarding your child. I will discuss every child in terms of "Knowledge" and "Self-esteem" because they are crucial to their success. Therefore, please focus on the other six characteristics when deciding about which you would like to receive information. I will be sure to provide you with information about your child in terms of the two characteristics that you identify.

It is necessary for me to request your consent to have your child involved in the research project to which these changes in evaluation are related. This is merely a protocol stipulated by the University of Victoria to ensure that the research is ethical and acts in the best interests of those involved. I have discussed this project at length with the researcher and can assure you that the intent of this research is to enhance the quality of evaluation and reporting. I would also like to emphasize we will carry out our typical routines and projects and that our involvement in this research project does not interrupt normal classroom activities. Furthermore, your child's identity will be protected in any published material that results out of this research. Please read and sign the consent form (yellow page) and have your child return it by Friday, January 10, 1992.

I am very excited to be involved with this research and believe that all of us are breaking new ground in evaluation and reporting. I hope that you will join us in this positive venture - it is an opportunity for each of us to make a positive impact on the future of our children's education in British Columbia.

To emphasize again, it is necessary that the yellow sheet with the checklist of characteristics and the consent form is returned by the end of the week, January 10th. If you have any questions or concerns please do not hesitate to call. Thank you for your co-operation and for investing your time in your child's education.

Sincerely,

Characteristics

I will report on the characteristics 'Knowledge' and 'Self-esteem', please circle any two of the following characteristics that you would like more information on regarding your child.

Thoughtful	Empathy
Industrious	Risk-taking
Generative	Strategic

Please use the space below if you wish to comment on the characteristics you have chosen.

Parent Consent

I give my consent to have my child involved in the research project called the Characteristics of a Successful Learner. I understand that the purpose of this research is to enhance the quality of evaluation and reporting of my child's progress and that it in no way compromises his/her normal classroom activities. I also understand if I have any concerns that arise in relation to this research that the teacher will willingly discuss these with me. Furthermore, if my concerns persist, I understand that I may withdraw my child from this study.

(Underline the appropriate statement below.)

I give my consent to have my child involved in the above research.

I do not give my consent to have my child involved in the above research.

(signature)

Appendix 3: The Range of Local Coherence

Thoughtful, Generative and Strategic: All Twelve Student Reports

Karen/Petra's Class

Thoughtful: predicting, inferencing, formulates hypothesis; curiosity, intellectual alertness/attentive; reasons, uses critical judgement; recognizes patterns and makes connections

Low Coherence

Kerry does not appear to be reflective about her school work. When reading, Kerry still focuses on understanding what she is reading. Her reading pace is slow. This does not allow her to concentrate on reflecting about plot, characters and similarities between stories. Her responses are mainly retellings and she is just beginning to state her own opinions about the books and back them up with evidence. In math, she often forgets to show the process in solving problems.

High Coherence

Jake shows that he is thoughtful about what he reads and what happens in class. When a classmate was creative, Jake was able to relate that to our study of the Characteristics of a Successful Learner and commented that she was generative. He is also able to evaluate what he reads in terms of suitability for people his age. He can give reasons for his decisions.

Generative: creative; produces unique solutions; applies ideas of others

Low Coherence

Kim was able to develop the ideas from a magic trick into a science experiment. When he realized that he had not remembered some of the concepts on the last math test, he asked for help from home. He was able to learn from this situation that review is essential.

High Coherence

At this Jenny has not shown herself to be generative in most situations. She is more comfortable doing what is familiar to her or what has been demonstrated by others.

Strategic: planful, resourceful, organized

Low Coherence

Amy showed evidence of being resourceful when she implemented a plan to help a friend. She made sure that she collected extra sheets for Ashley and delivered them to her after school. She was also willing to help with anything that needed clarifying. Amy keeps her belongings well organized and is always ready to begin working on time.

High Coherence

Sam showed evidence of being resourceful when he went to the library to find information on Judge Begbie. He felt that the information would help him with preparation for his role. He has also written many letters to sports figures in order to gain more information about them and their careers. He keeps his notebooks tidy and well organized and is always ready to begin working.

Kathryn's class

Thoughtful: predicting, inferencing, formulates hypothesis; curiosity, intellectual alertness/attentive; reasons, uses critical judgement; recognizes patterns and makes connections

Low Coherence

Laurie is a thoughtful individual. Laurie possesses a natural curiosity in everything she does. Her hand is always up during class discussions and she has no difficulty backing up one of her opinions with a reason. Laurie is becoming better able to "read between the lines" in a story. She can find clues to help her understand the characters feelings or find the reasons why a character acts a certain way. When Laurie wrote to Mrs. Popham (Lung Association Representative) she asked thoughtfully, "I still wonder if ladies can donate lungs?" Laurie's confidence comes through in her speaking and presenting. She had no qualms about leading two hundred people through "Lonestar" at the school Line Dance.

High Coherence

Jim possesses a natural curiosity for everything he does. His hand is always up during class discussions. He always has a comment to make. During one of our "Tripod" predicting activities, Jim suggested, "I think that a foreign body is controlling the Tripods and telling them what to do." His vivid imagination lets him get inside the characters' mind in which he is reading about. When our "Star Trek" study was going on, Jim put a lot of thought into his responses. All of them were backed up with concrete examples. When writing his final Science test for "Space", Jim came up with sixty-seven different ideas; a lot of thought went into the process. Jim's learning log is enjoyable to read. He often summarizes his learning in a humorous way. It gives me an opportunity to write back to him about what he is thinking and feeling. He seems to need my reassurance to know if what he is writing is okay. Jim is also adept at self evaluation. He is able to list what he likes and dislikes about his work and gives reasons why. However, I think sometimes he is too hard on himself. For some reason, he was not satisfied with the "Fort York" model he did in Social Studies, and he would not present it to the class. One of the other students did the presentation for him. In this case, Jim's expectations for himself were too high, and inevitably he was left disappointed.

Generative: Creative; produces unique solutions; applies ideas of others

Low Coherence

Sam's projects this term have reflected his creative ideas. His "Seeing Stars Box" for Science was well designed and worked efficiently. Sam used a wide variety of materials in his model of "Fort York" for Social Studies. Sam puts a lot of effort into his projects. His legend "The Battle of Flambeck" was well written and fulfilled the criteria set by Mrs. Miller. Sam enjoyed working on his "Valentine Basket" in Art; he carefully weaved his papers into an attractive design. Sam's "Space Resist" focused on the "Starship Enterprise". To Sam's dismay, I displayed it on the wall up side down!

High Coherence

Being generative allows Mike to achieve success in the classroom; this is Mike's strongest characteristic. Mike likes to build 3D objects. One time he approached me with a space ship in hand which was too floppy! Mike suggested making a support for it, so he did. He found a creative solution to a problem. After school one day, Mike voluntarily helped a student with a problem. The student had lost her watch and Mike suggested, "I'm studying to be a detective, I can help you find your watch." He eventually did; the student was delighted. While making our Valentine basket, Mike came up with a very unique design. Often in Art Mike will take the assignment beyond the boundaries. During a math problem solving task involving the cutting of a crescent moon, Michael achieved success by finding the solution to the problem. It took time but he persevered. When Mike wrote to our custodian about the problem of paint spilling in the classroom, he came up with a solution. He suggested putting newspapers under the paints next time, so they don't spill. All these examples show Mike's ability to be generative. More importantly though, these situations have helped Mike gain valuable self-worth. Whenever he comes up with a new solution to a problem, Mike feels good about himself.

Strategic: planful, resourceful, organized

Low Coherence

Alex finds success in Math partly because he is strategic. His notebook is organized and he follows a logical process to get through his questions, step by step. In Social Studies and Science this term, Alex did not complete his project. Both assignments were assigned well before the due date. Alex had plenty of time to make himself a time line to plan out how he was going to do the projects. For Social Studies he was to do a model of Fort York. I realize Alex left three days before the break, but he could have had his project completed in time. In Science, Alex was supposed to create a "Seeing Stars Box" for our "Space" unit. The directions were explained in detail; he just needed initiative to get started. Perhaps these are risks for Alex. If so, he would benefit from having someone look through his homework book nightly. It would be a good opportunity for him to talk about some of his ideas for up and coming projects.

High Coherence

Tom's enthusiasm for what he is doing often prohibits him from being strategic. During the making of his "Sun Resist" in art, Tom rushed into his work, neglected to listen to the instructions and didn't use any kind of resource such as a book to help him draw the sun. In this case, Tom needed to step back, slow down, and develop a plan before he got under way. Organizing his thoughts would have helped him to produce a higher quality picture. Tom's desk, notebooks, thoughts and written stories are often disorganized. Using his goal setting sheet to develop some realistic achievable goals in this area would help Tom to be more successful in the class. Goals like: "I am going to update my portfolio once a week by cleaning out my desk" or "I am going to organize my notebooks in a logical order" Or "Before I write a note, story or poem, I am going to organize my ideas" are some examples. I would like to see Tom come up with his own. Communicating the goals to me, will also provide Tom with some practice at expressing his ideas clearly.

Appendix 4: Teacher Responses Indicating Validity

CHARACTERISTICS

I. CHARACTERISTICS: CERTAINTY

Question #2

KATHY: Very meaningful. It gave me a lot of insight into my students. It helped to identify why the successful learners were successful and why other children were not. I found that most students had one overriding characteristic which handicapped them, it was very clear which ones they were: strategic, thoughtful, etc.

PETRA: it was meaningful in the sense that I came to know my students better in more areas than just academic

Question #4.

KATHY: Much more personally, realistically and meaningfully. I could help them specifically with an area they were having difficulty in . I knew what characteristics made them successful and which ones they hadn't developed.

KAREN: When we talked about the characteristics with the students and did self-evaluation - I realized that they may display certain characteristics outside of school but not within the school setting. It also made me more aware of possible reasons behind some of their actions. For example, a student may take risks in math but not in reading because of their feelings about themselves in those situations. I feel I have a better overall understanding of the child.

PETRA: it helped me to understand why some children were not very active participants in certain activities or vice versa (why they were)

Question #12

KAREN: I agree with them 100% and it helped give a focus on what is important and what is not.

PETRA: it gave a very personal glimpse of the child - an all-around evaluation with documented evidence to support it ... it addressed all the ways in which a student needs to develop in order to be a successful learner.

Question #15

KAREN: (they) contributed to a more detailed picture of the overall child both in and out of school ... I felt the evaluations made were an indication of how a child might do generally in life and not just in school.

Question #16.

KAREN: report focused on the child more than the curriculum ... report card comments have relevance outside of school as well as in

II. CHARACTERISTICS: UTILITY

Question #3

KATHY : In order for the characteristics, in each child, to develop, I had to change my method of instruction to a much more student centered approach. I had to let go of my 'control' over the students in order to let them explore and discover on their own. I was no longer on 'stage', so I had ample time to sit back and observe each child in different situations.

KAREN: It helped me to realize that if I wanted the students to display these characteristics I have to provide the types of activities which enabled them to display them. I also integrated 'talk' about these characteristics more consistently with instruction therefore, tying instruction and evaluation more closely.

PETRA: yes - in the sense that I had to think about setting up situations in which the kids could demonstrate certain characteristics

Question # 13

KAREN: It reminded me to give more opportunities for decision making to the students and to let them do more planning, organizing without my input. They showed that they are certainly able. I also made more of an effort to relate these characteristics that we valued to life outside of schools in the work-force.

Question # 15

PETRA: the characteristics made it easier to pinpoint weaknesses and make recommendations on the report card.

IMPLEMENTATION

III. IMPLEMENTATION OF THE FRAMEWORK: CERTAINTY

Question # 5

KATHY: The students learned (internalized) the vocabulary quickly. They valued the characteristics. They were proud of the areas in which they were successful. "I know I'm industrious because I always finish my work." While they also understood the areas they needed to develop. "I know if I was more strategic, I wouldn't rush into my projects, they'd be better if I could make a plan first and organize my ideas before I started."

PETRA: during self-evaluations they were able to see for themselves what their strengths were and what areas they could improve in, and they were very honest with themselves (in terms of the characteristics) ... I think they felt comfortable about knowing what was valued - they were finally able to put a name to some of the aspects of class life they had already experienced.

Question #14

PETRA: it was easier to collect evidence using the characteristics. Unlike a checklist, the incident in which the characteristic had been demonstrated, had to be fully described and was therefore committed to memory - for use in reporting. Checklists don't provide that type of evidence.

IV. IMPLEMENTATION OF THE FRAMEWORK: UTILITY

Question # 1

KATHY: Our learning became very meaningful. Everything we did had an additional purpose. ie. "I want to see how thoughtful you can be by thinking about your ideas with your group." The children were much more involved in their learning. They took their responsibility seriously. They were concerned about the development of the characteristics in themselves. Thus, they became adept at evaluating how they learn.

KAREN: I think it was the fact that they students were more aware of the qualities we valued and the qualities that their parents were interested in hearing about. They might, therefore, be encouraged to attempt to become more risk-taking

PETRA: - the children learned about characteristics that add to success as a learner, how they add to this success and how they exhibit those characteristics

Question # 6.

KATHY: I knew what to report on . They were meaningful and succinct. They were personal.

KAREN: It focused my observations, I was more consistent in recording my observations and the characteristics where the child was successful were easy to report on - lots of specific evidence.

PETRA: - having actual incidents as evidence made reporting easier and more personal for each student.

Question #14.

KAREN : more focussed observations, more self assessment by the students, more recognition by student of when other students were displaying a characteristic.

VITA

Surname: Smith

Given Names: Susan Anne

Place of Birth: Edmonton, Alberta

Date of Birth: March 21, 1962

Educational Institutions Attended:

University of Victoria

1981 to 1992

Degrees Awarded:

B.ED.

University of Victoria

1987

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Title of Thesis: Learner Characteristics

Author



SUSAN ANNE SMITH

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