

AN ANALYSIS OF THE UTILITY OF EGAN'S DEVELOPMENTAL
THEORY FOR INSTRUCTIONAL MATERIAL PRODUCTION

Francisca Elton

A Thesis
in
The Department
of
Education

Presented in Partial Fulfillment of the Requirements
for the degree of Master of Arts at
Concordia University
Montréal, Québec, Canada

November, 1983

© Francisca Elton, 1983

Abstract.

AN ANALYSIS OF THE UTILITY OF EGAN'S DEVELOPMENTAL
THEORY FOR INSTRUCTIONAL MATERIAL PRODUCTION

Francisca Elton

Developmental theories, while generally informative, do not generate a methodology directly applicable to the preparation of educational materials. The work of Kieran Egan appears to address this problem. The purpose of this study was to assess the validity of two interacting variables central to Egan's work: the construction of educational materials appropriate for different developmental stages and the ages assigned to these stages. The subjects were sixty grade nine students and 60 grade eleven students. Each student was randomly assigned to one of four instructional subgroups (mythic, romantic, philosophic and control) and administered a self-contained unit in history. After reading the instructional materials packages, the students immediately completed recognition, cued recall, and free recall measures. The same tests were administered after a two week and a four week period. The results provided tentative support for Egan's theory via superior recall by the grade nine students on the mythic and romantic passages. However, grade eleven did not respond at all in line with the theory. The contradictory effects were discussed from both a theoretical and methodological

standpoint. It was concluded that while the present study was suggestive of the utility of Egan's work, longer term research is necessary to validate its development value.

ACKNOWLEDGEMENTS

Because there are few opportunities to say thank you in writing, I would like to use this one to thank my parents and all those others who encouraged my own growth.

I would specially like to thank my husband, William Lydiatt, for his sincere help, care and love, as well as our two little binary opposites, Matthew and Benjamin - just because.

I would also like to thank Peter Talbot, as well as the other teachers and students of Port Perry High School.

Sometimes, it is hardest to thank those who deserve it most. Many thanks to Richard Schmid, who took me under his wing, taught me how to fly and kicked me out of the nest.

7

TABLE OF CONTENTS

Chapter	Page
1 Rationale.....	1
Development and Learning.....	2
2 Review of the Literature.....	13
General Developmental Theory.....	13
The Epigenetic Principle.....	14
The Known and The Unknown.....	19
Piaget's Developmental Theory.....	21
Acts of Discovery.....	27
Categories and Category Formation.....	29
Bruner's Developmental Stages.....	31
Natural Education.....	33
The Mythic Stage.....	34
The Story Form.....	39
The Romantic Stage.....	40
The Philosophic Stage.....	44
The Ironic Stage.....	48
Comments on Egan.....	53
3 Method.....	57
Design and Subjects.....	57
Materials.....	57
Procedure.....	59
4 Results.....	61
Analysis of Treatment Data.....	61
Recognition Test.....	63
Cued Recall Test.....	64

Free Recall Test.....	65
5 Discussion.....	77
Theory vs. Methodology.....	78
Development of the Learners.....	82
Further Research.....	86
Reference Notes.....	89
References.....	90
Appendix A.....	94
Appendix B.....	141
Appendix C.....	152
Appendix D.....	158
Appendix E.....	162
Appendix F.....	166

LIST OF TABLES

Table		Page
1	Means and Standard Deviation for Multiple-Choice Test Responses.....	65
2	Means and Standard Deviation for Fill-in-the-Blank Responses.....	66
3	Means and Standard Deviation for Idea Unit Responses.....	68
4	Means and Standard Deviation for Total Word Responses.....	69
5	Means and Standard Deviation for Intrusions.....	70

LIST OF FIGURES

Figure	Page
1 Mean number of idea units recalled on the immediate test in the grade by passage interaction.....	71
2 Mean number of intrusions produced on the immediate test in the grade by passage interaction.....	72
3 Mean number of total words recalled on the post delay test in the grade by time interaction.....	74
4 Mean number of intrusions produced on the post dealy test in the grade by time interaction.....	75

Chapter 1

RATIONALE

In recent years, a considerable amount of attention has been given to the study of the developmental stages through which children pass as they grow into maturity.

Developmental theory is concerned with understanding and describing children's expanding ability to deal with the world (Mussen, Conger and Kagan, 1969). These theories are being widely used as the basis for curriculum development by educational practitioners. However, to a large extent, it has been left to the practitioners themselves to interpret and apply the theory for individual situations. This is unfortunate because it can, and often does, lead to serious misinterpretations, resulting in the development of ineffective educational materials (Hilgard and Bower, 1975).

The goal of this study was not to engage in gratuitous criticism of any particular theory per se, but to address the problems associated with materials development, using various theoretical frameworks which can be practically applied to everyday educational situations. Educational practitioners need access to a body of research and prescriptions that will help them effectively organize and present curriculum, materials, activities, games and other resources. As a basis for generating just such a methodology, the author has found that the developmental

work of Kieran Egan (1979) may in fact provide teachers with such guidance. Little research has been conducted to directly examine Egan's work. Thus, the specific objective of this thesis was to begin empirically examining his theory's validity.

Development and Learning

The premises of Egan's work are best understood when juxtaposed with the developmental theories of Erikson, Havighurst, Piaget and Brunner. To provide this understanding, each is briefly described below.

Erikson (1963, 1968) bases his description of personality development on the "epigenetic" principle. The epigenetic principle holds that personality develops as ego progresses through a series of interrelated stages. Further, all these stages are latent. Each has a critical period of development. Erikson's position is that there are distinct types of behaviour and relationships characteristic of each stage of development, and that these are expressed in dichotomies or binary opposites: birth to 1 year, trust vs mistrust; 2 to 3 years, autonomy vs doubt; 4 to 5 years, initiative vs frustration; 6 to 11, industry vs inferiority; 12 to 18, identity vs role confusion. Failing to acquire an early stage of development can lead to difficulty in later stages.

Havighurst (1952) also uses an epigenetic foundation

for his study of developmental stages. Like Erikson, Havighurst believes that early stages must be successfully completed for the successful development of later stages. However, unlike Erikson, Havighurst approaches the stages as developmental tasks to be accomplished. Also, Havighurst's stages are not characterized by dichotomy. Rather, they are based on distinct levels of psycho/physical development: 2 1/2 to 6 years, nervous system matures, category formation; 6 to 12 years, peer group interaction, physical skills and moral development; 13 to 18, ethical awareness, social responsibility.

Piaget (1970) describes human development from a cognitive and perceptual standpoint. For him, there are four major stages or periods of development: 0 to 18-24 months, sensorimotor period; 18-24 months to 7 years, preoperational period; 7 to 12 years, concrete operations period; adolescence to adult, formal operations period. Children must pass through these stages sequentially for successful development. Further, intellectual capacity is limited to the periods that the child has attained.

Bruner's work differs from that of Piaget by dealing, only with conceptual development (1966). He maintains that it is the conceptual ability of a child that dictates development. Children are not necessarily limited in their ability to understand concepts or categories by simply being

part of a stage. It is how any given concept is approached and presented to children that is most important, although he certainly recognizes periods of optimum readiness. The general stages of development for Bruner are: 0-24 months, enactive; 24 months to 12 years, iconic; 12 years to adulthood, symbolic.

All the theoretical approaches mentioned above have similar characteristics. They emphasize several or all of the psycho/physical aspects of development in children including: adaptive behaviour, motor ability, language skills, and personal/social behaviour in different age ranges. Undoubtedly, these investigations yield valuable understanding of children's development. Further, they can be used to some extent as operating principles in educational materials design. For example, the application of Erikson's ideas would necessarily involve appreciating that the development of behaviour and interaction unfolds in relatively fixed and predictable stages, and that age is closely related with these stages. In applying Piaget in the classroom, consideration must be given to the way students organize and synthesize ideas and arranging situations to promote interaction,

All the principles and suggestions of these theorists have merit, and none can be discounted out of hand. However, generally speaking, they do not directly address

the needs of professional educators where it really matters, i.e., precise prescriptions for the classroom. Thus, these developmental theories can be seen to be only indirectly helpful in creating principles for instructional materials that will respond to specific developmental stages in learning.

Kieran Egan has proposed a theory which he has transformed into a useful taxonomy. Egan's (1979) theory distinguishes four main stages of educational development spanning early childhood to maturity: mythic stage (4 or 5 to 9 or 10), romantic stage (8 or 9 to 14 or 15), philosophic stage (14 or 15 to 19 or 20) and ironic stage (19 or 20 onward). Egan holds that a child's experience of the world is categorically different in each stage of development. The movement from one stage to another is not transitional in nature, although the ground work for each stage is laid in the previous one. Rather, Egan likens entry to a stage as a "leap" or "a sudden vision, a sudden coalescence that creates a qualitatively different way of making sense of things" (1979 p.158). Thus, differences between stages are broad enough to require completely different educational materials for each stage. For example, when discussing history, Egan states:

I have suggested that history be simplified for the mythic stage to the point of being a kind of fairy story

where light struggles for survival against wicked darkness; to the point where for the romantic stage principles of selection be applied which turn history into a set of transcendent events and characters; to the point for the philosophic stage where history is reduced to ideologies and metaphysical systems. (1979 p. 103)

The principles for organizing learning and teaching are derived from the characteristics of each stage. Egan calls the first stage of development the mythical stage. He feels that young children share many features of myth-using cultures such as those studied by Malinowski (1954), Eliade (1963) and Levi-Strauss (1963, 1966, 1969). There are several important characteristics of mythic thinking. Of these, the most important is that mythical thinking maintains intellectual security. Mythic thinking also has a lack of sense of otherness, autonomy and objectivity. Mythic events are expressed in terms of binary opposites.

Egan derives the following principles for organizing learning and teaching from the characteristics of the mythical stage:

1. Present the material in story form.
2. Use binary oppositions.
3. Use concepts with absolute meaning.
4. Avoid concepts of otherness and a sense of an autonomous world.

5. Use emotional and moral categories.

Egan calls his second stage romantic. The romantic stage is myth confined to the real world. It is characterized by a desire to transcend a threatening reality while struggling to maintain identity within it. Romance has tension built into it. The main principles for organizing learning and teaching materials in the romantic stage are:

1. Use the story form.
2. Explore the reality of the world in detail.
3. Incorporate concepts of otherness.
4. Connect the different elements of the story with transcendent human qualities.
5. Place the opposing elements in dramatic conflict.

Egan calls the third stage of educational development the philosophical stage. In this stage, students seek knowledge for its own sake. This stage is characterized by the pursuit of general truths about natural, social, psychological and historical processes. Egan holds that teaching and learning in this stage should be based on the following general principles:

1. Introduce the unit clarifying the general form of the context.
2. Encourage the development of flexibility in thinking and commitment to the general scheme.

3. Include some material that will engage the student in inquiring into what knowledge will support the general scheme.
4. Generate anomalies which will require some revision of the general scheme.

For Egan, the ironic stage is an exception to the rule. The key characteristic of the ironic stage is a clear sense of what the mind contributes to knowledge. He holds that no special materials need to be prepared for this stage. In the ironic stage the student's capabilities are equal to the teacher's. Thus, the form in which material is presented is of little consequence.

Egan's work is consistent with existing theories of psychological, sociological or conceptual development. What distinguishes Egan's ideas is that, for him, developmental research must be intimately intertwined with education. It is the direct application of developmental theory to real educational situations that has attracted his attention. The goal is to provide practical frameworks for planning units and lessons, for curriculum organizing and most important, for motivating children to learn.

Egan (1979) uses three terms to describe the effect that educational materials organization has on development. Egan borrows the term "align" from Piaget to describe a context or way of organizing information that allows for

further development. Information or Knowledge serves as an aliment to further development if it is organized in a manner appropriate to the stage of a student's best achievement. Knowledge organized in a context such that it contributes nothing upon which development can be based, is called "inert". Knowledge organized for a stage higher than the current stage of development of a student is an example of inert knowledge. Knowledge that is organized for a stage below that of the actual stage of development of a student, he calls "entertaining". This type cannot serve as an aliment to fuller development at that stage, or as an aliment to further development at a higher stage. In other words, it is inert. In all three classifications, actual knowledge takes a secondary role to the context in which it is presented. Thus, it is the context, not particular knowledge, that dictates whether the knowledge is an educational aliment, educationally inert, or simply entertaining. Development is dependent upon the organization, accessibility and assimilability of the material through which the knowledge is presented.

Egan's theory is similar to others in that failure to satisfactorily complete any of the stages can lead to educational deficiencies later on. Each subsequent stage builds on, elaborates and develops from the previous one. For Egan, educational development is a cumulative process.

If the earliest stages are incomplete or neglected, there is little hope for progress into more advanced stages.

One of the central preoccupations of education can be summarized as follows: how can children be taught in such a way that the educator will be sure that the information will be attractively presented, meaningful and clearly understood in each of the periods of educational development? Egan's theory appears to address this concern. No one has yet empirically tested the framework of Egan's theory.

The purpose of this study was to assess the validity of the hypothesized relationship between two interacting variables that are central to Egan's work: that is, his framework for the construction of educational materials in different stages, and the ages that he assigns the stages. The materials were organized for three of the four different stages (mythic, romantic and philosophic). Each version, along with a "control" passage, was then presented to two of the age groups (romantic and philosophic).

If Egan's assumptions are correct regarding cognitive development, a given group should respond more positively to its corresponding format. Retrieval performance should benefit or suffer accordingly. Thus, performance changes would be predicated on the assumption that materials above a given stage level would provide only inert information, and should therefore be less well understood and recalled.

Information below the group's level should be comprehended, but it is unclear how its memorability would be affected. Based on Egan's work, all that can be surmised is that the lower level materials will not contribute to cognitive development. Because cognitive development cannot be directly assessed, we are thus left to examine artifacts of this developmental process i.e., the recall and recognition of "appropriate" and "inappropriate" learned material. To state the alternative hypothesis more precisely, the ninth graders should perform best on the romantic passage, while the eleventh graders should perform best on the philosophic passage.

In addition, to questions regarding student's initial reception, the tenacity of retrieval ability was tested again, assuming that material deemed most meaningful (i.e., alinent), would be retained over time. Thus, retention was measured immediately following learning, two weeks later and again four weeks later to examine the forgetting curves. In summary, an attempt was made to directly test the usefulness of Egan's prescriptions, with an eye towards evaluating the validity of his theoretical premises. It was recognized that one study cannot effectively address a theory's underpinning. However, if Egan's claims that his prescriptions are indeed precise enough to be used in standard curriculum development, then some effect should be

obtained from their careful utilization.

Chapter 2

REVIEW OF THE LITERATURE

General Developmental Theory

General developmental theory is an offshoot of psychology. With respect to education, the aim of developmental theory appears to be to derive general laws of development, motivation and learning which can then be applied to educational situations. Psychology considers itself to be a pure science in the manner of physics or mathematics, which have had enormous consequences in our daily lives: witness the "computer revolution". In a similar manner, the discoveries of psychology find themselves manifest in everyday life. No where is this more evident than in education. There is, as Egan (1979) points out, a vast amount of empirical research that has probed and tested the various theories advanced. More important, educators "have continued to scrutinize this work for knowledge that is of use to the practical activities of teaching and learning" (Egan, 1979 p. 3).

It should be pointed out that the field of education is only one of many areas in which developmental theory can be, and is, applied. For example, extensive use of developmental theory has been made in examining family relationships, particularly in attempting to understand and

help children through family breakup and the establishment of reconstituted families. This appears to be testimony to the effectiveness of the theory. For Egan, psychological theories sometimes offer implications for education and indeed, he appears to make use of some of these implications himself. However, he calls for a theory of education based on a "different level of generality and a different range of phenomena from those which interest psychologists, or sociologists or genetic epistemologists" (Egan, 1979, p. 5)

A closer look at the literature of educational developmental theory may yield useful insights into the predominant trends in education in general, and Egan's departure from them.

The Epigenetic Principle

Proponents of the epigenetic principle (Erikson, 1963, 1968; Havighurst, 1952) hold that:

1. personality develops as ego progresses through a series of interrelated stages,
2. all stages exist in some form at the beginning of a child's life, and
3. each stage has a critical period of development.

Erikson (1968) has generated five unique developmental stages, each of which is characterized by binary opposites. These binary opposites are psychological states that can be developed to the child's betterment or detriment, as the

case may be. The following table outlines Erikson's stage ages and the characteristic binary oppositions inherent in them.

Table 1: Erikson's Developmental Stages

Stages	Characteristics
Birth to 1, yr	trust vs mistrust
2 to 3 yrs	autonomy vs shame and doubt
4 to 5 yrs	initiative vs guilt
6 to 11 yrs	industry vs inferiority
12 to 18 yrs	identity vs role confusion

By examining this table, it is easy to see that in Erikson's version of epigenetic developmental theory, the binary opposites in each case consist of desirable and undesirable psychological states. Thus, it would appear that in applying this theory to education, the goal at each stage is to foster the positive attribute or behavior in each binary pair. This is supported by Biehler (1978) in his suggestions for applying Erikson's theory to the classroom. For example, it is recommended that educators set up situations for young pre-school children that will

10

help them avoid experiencing doubt. Encouraging autonomy, as well as avoiding overprotection and lack of support, are also desirable conditions at this age. In a more advanced stage, such as the 12-18 year old level, the dichotomy is one of advancing the child's sense of continuity and identity vs having the child slip into role confusion and lack of sexual identity.

Unquestionably, it is undesirable to infuse children, at any age, with overwhelming feelings of doubt. Similarly, it is inadvisable to overprotect children. However, saying these things does not really help the educator in designing and implementing materials to educate children. It simply describes techniques for producing desirable behavior for a given child and the dangers of failure.

Egan (1979) presents an entirely different concept of binary opposition. For Egan, experiencing the world in terms of binary opposites is central in young children. The mental life of children is full of binary oppositions. Their experience includes big/little, love/hate, security/fear etc. Further, Egan holds that educators should incorporate these binary oppositions as the basis of teaching, rather than try to resolve one into the other.

...children tend initially to make sense of things in binary terms, using only a couple of concepts

at a time. These binary opposites are then elaborated by mediation between the binary poles.

(Egan, 1979, p. 13)

Thus, Egan's concept of binary opposition more than superficially differs with Erikson's. In Erikson's framework for 4 to 5 year olds, the educator is given a choice between fostering initiative or crippling the child with guilt. For Egan, this type of opposition would be the very subject matter of curriculum, through its development in story form. Fear/security, initiative/guilt and the other oppositions are, for Egan, the real "stuff" of life. Thus, they should be included in the content of education.

The other major architect of the epigenetic point of view is Havighurst. Havighurst (1952) expands the view of stages, beyond the world of psychological states into the world of the individual's relationship with society. In doing so, he also extends the implications of the third central concept of epigenetic theory; that there is a critical time in each stage. Havighurst agrees with Erikson that there are central tasks that must be performed in each developmental stage. The successful completion of these tasks constitutes "healthy and satisfactory growth in our society", or more succinctly "happiness" (Havighurst (1952). Happiness is, of course, seen as socially responsible behavior.

For Egan (1979), the goal of education is not necessarily to be happy, but to mature, to pass through the natural stages of development with knowledge in the forefront. In this he differs from the epigenetic theory, which is highly goal oriented. Table 2 summarizes Havighurst's stages of development.

Table 2: Havighurst's Stages of Development

Stages	Characteristics
2 1/2 - 6yrs	nervous system matures, category formation
6-12 yrs	peer group interaction, physical and moral development,
13-18 yrs	ethical awareness, social responsibility

Application of Havighurst's developmental theory to education leads to emphasis on psycho/social skills and their development. The theory assumes that what children know best are the social concepts that surround them, such as mother, father, school, teacher etc. The task is to start from the familiar or known and work to the unfamiliar or unknown, concentrating on predetermined desirable goals

such as emotional independence, learning sex roles, developing wholesomeness etc. However, as in Erikson, a desirable end has been set with no real description of the path to it. Egan calls this "familiar to unfamiliar" approach to educational development as "progressivist", after John Dewey.

The Known and the Unknown

Egan (1983) has itemized several specific conflicts between his approach and the "progressivist" school of development and curriculum design. The first conflict lies in differences in interpretation of what is entailed in the concept of "from the known to the unknown". Egan points out that, from a progressivist point of view, the known is usually understood as the everyday world of children: i.e. the home, the family, neighbourhood and so on. In this case, the known would seem to be the social units of a child's environment. From this base, a child's concepts can be expanded into more elaborate social structures, role identities etc. This viewpoint, according to Egan, ignores the importance of fantasy in children's lives. Even more important, it ignores the fact that it is abstract concepts that give "life and energy to their fantasy worlds" (Egan, Note 1). Thus, he says the primary curriculum need not be restricted to the content of their daily experience. A discussion of the importance of fantasy in children's lives

is deferred for the moment, but will be examined later.

The second point of conflict confronts the "Dewey-ian" notion that knowledge that comes first and is ingrained the deepest is knowledge of "how to do". Egan points out that it is not the knowledge of "how to do" that comes first, but the "fundamental categories upon which we learn to increasingly make sense of things in the universe and in human experience" (Egan, Note 1).

Before children can walk or talk, before they can skate or ride a bicycle, they know joy and fear, love and hate, power and powerlessness, and the rhythms of expectation and satisfaction, of hope and disappointment. Children who never learn to walk or talk or read know love and fear, expectation and satisfaction, hope and disappointment. (Egan, Note 1)

Thus, Egan takes an empirical approach out of the phrase "known to the unknown". The "known" becomes abstract concepts. The "unknown" becomes any content to be taught. Further, children can articulate this content in terms of the abstract concepts they know most profoundly.

If Egan's perspective is credible, it has enormous implications for the application of Erikson's and Havighurst's theories in the classroom. Both theories are task and skill oriented. More accurately, both theories suggest that healthy personal and social development depends

on the successful completion of short terms goals that proceed from the familiar to the unfamiliar. Both ignore the importance of fantasy in children's lives and the position that fantasy is fundamental to human experience.

Piaget's Developmental Theory


The importance of Piaget's work in development theory is universally recognized and its application by educators to the classroom commonplace. Piaget's methods afford educators a means of assessing an individual's ability to learn, and provide tools to help diagnose his/her difficulties (Boyle, 1969; ElKind, 1974).

Piaget distinguishes development from learning (Boyle 1969). Development is a spontaneous process linked with the process of embryogenesis. However, development should not be exclusively associated with physical development. Rather, it includes both physical and mental functions. In fact, Piaget makes a direct association between physical and mental functions. Motor action is seen as the source of mental operations (Tuddenham 1966). Since, for Piaget, motor action is adaptive, the mental functions gradually displace overt motor activities (Tuddenham 1966). Tuddenham (1966) suggests that Piaget distinguishes development from perception. Perception is seen as a continuous, quantitative process, whereas development has structured criteria. Thus, Tuddenham's interpretation of Piaget's

development theory can be associated with Boyle's understanding of learning.

Learning is not spontaneous but provoked by situations. Learning affects specific intellectual structures required to deal with particular situations. In as much as development entails learning, it involves the totality of intellectual structures. Boyle (1969) isolates four factors in Piaget's theory that account for how development comes about. These are: physical maturation, experience, social transmission and equilibration. He is quick to point out that none of these alone can be responsible for development. Physical maturation is not mainly responsible because intellectual structures are known to appear at different ages in different cultures. With regard to experience, Boyle notes that some of the structures of concrete operations do not depend on experience. Social transmission also cannot be considered solely responsible for development because a child cannot receive information through language unless he has intellectual structures that permit assimilation of that information.

The final factor is equilibration. It is central to understanding the intellectual structures of development and provides more fertile ground in accounting for development. For Piaget, knowing is an active process, a series of stages characterized by an active search for equilibration.



Equilibration itself is seen as a dynamic force or regulatory process between two other cognitive processes in development. These are assimilation and accommodation (Boyle, 1969; Elkind, 1974; Tuddenham, 1966).

Assimilation and accommodation are modes of knowing that occur at all age levels. They act in and through, and are the motive power of, cognitive structures (Elkind 1974). Cognitive structures are mental organizations or schemata that determine what a child may and may not be able to do at any given stage. Assimilation and accommodation go hand in hand. Information that cannot be assimilated into existing cognitive structures must be accommodated for. Accommodation is the process whereby a schemata changes in order to assimilate (Tuddenham 1966). Thus, the activity of accommodation in a sense reflects a failure of assimilation (Elkind 1974).

Elkind (1974) associates this process of assimilation, accommodation and the resulting equilibration with consistency. He states that a child's eagerness for new concepts and knowledge is proportional to his/her awareness of consistencies in the physical world. The implication of this is that the more that a child assimilates, hence finding consistency with his experience, the more eagerly he/she will approach new situations or opportunities for learning.

The processes of assimilation and accommodation are intertwined as a sort of dual action or dialectical process which results in a state of equilibrium or disequilibrium and which can be compared to what Egan (1979) calls the dialectical process between the general scheme, particular knowledge and anomalies in the philosophic stage. When equilibrium is disturbed, a child must accommodate himself or herself to that which has disturbed the equilibrium, resulting in a new equilibrium, or more properly, a new level characterizing its own form of equilibrium. This constant "re-equilibration" leads to expanded forms of thought (Elkind 1974). Finally, the individual reaches a place where equilibrium is balanced and no new form need be sought (Boyle 1969).

For Piaget, cognitive structures or schemata reveal themselves in language, play and all other activities (Elkind 1974), and may be classified into the developmental stages shown in Table 3.

Tuddenham takes great pains to point out the "developmental" nature of Piaget's work itself. Piaget has defined stages of verbal expression from 3 to ten years, running from early animistic, through magical and artificialist forms to rational thought (Tuddenham, 1966).

Table 3: Piaget's Developmental Stages

Stage	Characteristics
Birth to 2 years	Sensimotor (Development of schema through sense and motor activities)
2 to 7 years	Preoperational (Gradual ability to conserve and decenter, but not capable of formal operations)
7 to 11 years	Concrete operational (Capable of operations but restricted to inability to generalize to hypothetical experiences)
11 - 14 years	Formal operational (Able to deal with abstractions, form hypotheses, consider possibilities)

At each level, children construct a cosmology according to the modes of reasoning available to them. These classifications of speech have been expanded over the years to include the following: 0 to 7 or 8 years, egocentric speech and thought; 7-8 to 10 years socialized speech and thought; 10 to 11 or 12 years, moral realism; over 12 years; moral relativism. In recent years, the characteristics of each stage and the differences between them have increasingly been formulated in terms of symbolic logic (Tuddenham 1966), a development which Egan (1983) says ignores the most important aspect of children's thinking i.e., its "fantastic" content.

Even the most ardent proponents of Piaget's theories are not without criticism. Boyle (1969) suggests that Piaget's learning theory is not inspirational for pedagogy. He points out that educators almost universally agree that children should be encouraged to learn things by themselves and that there is no systematic way of teaching. Thus, there is a weakness in the bridge between cognitive theory and pedagogy. For Boyle, Piaget is an observer, not an educator. Piaget, however, never claimed to be an educator. But, with respect to the application of Piaget's theories to education, Boyle's criticism still stands. Boyle continues in this vein by suggesting that there is too much emphasis on socialization as the goal in the developmental

progression to adulthood.

Tuddenham's (1966) criticism is from a different approach, one which also recurs in a somewhat different form in Egah. For Tuddenham, Piaget fails to ask questions such as "what is knowledge" and "what is reality". The epistemological problem is limited to how knowledge works.

Labinowicz (1980) supports Boyle's observations on the limitations of cognitive theory. For Labinowicz, Piaget concentrates on the internal workings of the mind and observable logical behavior, at the cost of failing to appreciate that not all behavior or influences in a child's life are logical. Piaget's emphasis is on the quality and process of a child's thinking, rather than the end product of that thinking.

Acts of Discovery

For Bruner (1961), the aim of teaching should be to give students "as firm a grasp of a subject as we can, and to make him as autonomous and self propelled a thinker as we can" (1961, p. 23). Bruner ties these two goals together in the "act of discovery" and points to this act of discovery as critical in major scientific and other accomplishments. For Bruner, personal acts of discovery should be considered beneficial and are associated with:

1. an increase in intellectual potency,
2. a shift from extrinsic to intrinsic rewards,

3. learning the heuristics of discovering, and
4. advances or aids in memory processing.

Bruner suggests that the act of discovery presupposes expectancy; that is the expectation that there will be something to find. Given this expectation, the child must devise ways "searching and finding". Bruner has isolated two extremes of cognitive activity which he terms episodic empiricism and cumulative constructivism. Episodic empiricism is information gathering "that is unbound by prior constraints, that lacks connectivity and is deficient in organizational persistence" (Bruner, 1961, p.25). Cumulative constructivism is the opposite extreme. It is characterized by "constraint sensitivity, by connective manoeuvres, and by organized persistence" (Bruner, 1961, p.25). Further, he holds that learning which emphasizes discovery leads a child to be a "constructivist". He considers constructivism to be a necessary condition for learning various types of problem solving techniques. In this way, the act of discovery increases intellectual potency.

For Bruner, effective cognitive activity should be free from environmental rewards and punishments that might transform the learning situation into one where the child is searching for clues to conformity, rather than being motivated to discover and learn. By encouraging a child to

learn through discovery, the act of discovery itself becomes a reward, thus turning the reward from extrinsic to intrinsic.

With regard to learning the heuristics of discovery, Bruner holds that it is only by doing that you learn to do. Thus, by engaging in particular acts of discovery, the child can learn the heuristics of discovery itself.

Finally, self discovered learning tends to yield better memory than other types of learning. Bruner's experiments have indicated that the activities and attitudes involved in acts of discovery make material more readily accessible to memory.

Categories and Category Formation. Acts of discovery are very closely related to category formation (LeFrancois, 1979). "The learning and use of categories represents one of the most elementary and general forms of cognition by which man adjusts to his environment" (Bruner, Goodnow and Austin, 1956, p. 2). Bruner distinguishes two major types of categories; identity and equivalence. Identity categorization can be said to be the classifying of stimuli as "forms of the same thing". Identity categories should not however, be understood in the Kantian sense as given but rather like Piaget, as principles of conservation, much like conservation of energy in physics (Bruner et al., 1956). Yet, identity categories remain an internal function of-

development. Thus, Bruner implies that development of identity categories depends a great deal on learning.

Equivalence categorization can be said to involve the "same kind of thing" (Bruner et al., 1956). Equivalence is based both on external and internal functions, and is subdivided into three distinguishing responses - affective, functional and formal. Affective categories are internal and are formed very early in childhood, before the full development of language. Thus, they are not easily verbalized or even recognized as categories.

Functional categories are external. The objects of the functional category fulfill a concrete and specific task requirement. Formal categories specify the intrinsic properties required by members of a class. Formal category systems develop as the ability to create, manipulate and understand symbol systems develops. It is important to note that Bruner considers these categories as convertible. In other words, each type can be converted into another. This view helps illustrate his view of learning development. For example, in the conversion from functional categorization to formal categorization, a hammer, which is an object that is in the category of things to drive a nail with, develops into an object in the class of things capable of creating mechanical force.

Bruner's Developmental Stages. Bruner holds that children develop through three distinctive stages, which are shown on Table 4. In the enactive stage, children understand their environment through action and the development of affective categories. Learning is predominantly psychomotor, because children have little capacity for imagery. Thus, Bruner's views of this level of development concurs with Piaget's at this point. For both, objects are only what a child does with them.

The iconic stage can be equated with Piaget's pre-operational stage. At this level, imagery becomes dominant and functional categories predominate. Visual memory is developed.

The final stage Bruner calls the symbolic stage. Here language, formal categories, mathematics and logic are dominant. All of these are symbol systems. At this stage, the diversity of experience can be and is encapsulated in symbolic systems.

Development through Bruner's stages is not necessarily cumulative, but like categorization, may be convertible. Although the symbolic stage gradually becomes dominant, certain types of behaviour may indicate the salience of an early stage, even in an adult. For example, a highly skilled profession, such as surgery, may indicate a dominance of the enactive stage. Similarly, practitioners

of the visual arts may be living in the symbolic stage.

Table 4: Bruner's Developmental Stages

Stage	Characteristics
0-34 months	enactive
24 months to 12 yrs	iconic
12 yrs to adulthood	symbolic

Bower and Hilgard (1981) point out that Bruner's criteria for a theory of education is that it be both prescriptive and normative. It is prescriptive to the extent that it proposes rules for achieving knowledge or skill, and provides techniques for measuring and evaluating outcomes. It is normative in setting goals to be achieved and deals with conditions to meet them. Even more important, Bower and Hilgard point out Bruner's four criteria for a theory of instruction. These are:

1. Predisposition to learn. A theory of instruction must be concerned with the experiences and contexts that tend to make the child willing and able to learn when he or she enters school.
2. Structure of knowledge. It must specify ways in which a body of knowledge should be structured so that it can be most readily grasped by the

learner.

3. Sequence. It should specify the most effective sequences in which to present the material.
4. Reinforcement. It should specify the nature and pacing of rewards, moving from extrinsic rewards to intrinsic rewards.

Natural Education

In the review of predominant developmental theories above, one major feature has appeared. That is, that none of these theories applies directly to education. At best they offer "implications" for teaching. This is the starting point for Kieran Egan's (1979) discussion of educational development. With particular reference to Piaget, but with regard to the others as well, Egan states that "the fact that teachers are interested in certain topics Piaget has studied does not magically convert his theories and knowledge into a form directly applicable to education's practical concerns" (1979, p 5).

What is needed then, is a theory that directly addresses the practical everyday concerns of teachers:

... a different kind of theory, one which focuses on the educational aspects of development, learning and motivation and which directly yields principles for engaging children in learning, for unit and lesson planning and for curriculum engineering. (Egan,

1979, p. 6)

It is just such a theory that Egan proposes in his book, Educational Development. Egan points out that his theory is not incompatible with the data developed from other theories. In fact, at numerous times throughout his study, he points out coherence with at least parts of Erikson and Piaget's work. These will be examined in detail in the discussion of Egan's stages of development, which are shown on Table 5.

The Mythic Stage. Egan begins his account of the mythic stage by accepting the truism that children should learn certain things first, and in a certain sequence (1979). However, instead of concentrating on the content of what should be learned, Egan focuses on what engages the interest of children. This he says are fairy stories and games. He then follows this by asserting what children do know best are the most profound human emotions and the bases of morality. Both the mythical nature and the "profound content" are typified in children's wildest flights of fantasy. Thus, right from the beginning, Egan disassociates himself from the typical expanding horizons curriculum for children, in favour of exploring their fantasy world. Further, this is not considered a limitation, for the subject matter of early childhood education includes

 Table 5: Egan's Developmental Stages

Stages	Characteristics
Mythic (4 or 5 to 9 or 10 yrs)	Provides intellectual security, lack of sense of otherness, autonomy and objectivity, events expressed in binary opposites
Romantic (8 or 9 to 14 or 15 yrs)	Experience of real world, desire to transcend reality, exploration of detail, built in tension
Philosophic (14 or 15 to 19 or 20 yrs)	Seek knowledge in itself, impose schemes on detail, pursuit of general truths
Ironic (19 or 20 yrs through adulthood)	Sense of contribution of mind to knowledge, lack of demonstration of general truths to explain all reality, irony.

anything connected with basic emotions and morality.

For Egan (Note 1), inquiring into the nature and processes of fantasy is significant in developing a theory of education and in instructional design planning. It is, he claims, the most energetic aspect of young children's thinking. And yet, he goes on, the dominant theoretical approaches to education almost entirely ignore this most prominent feature of young children's mental life. Thus, it is worthwhile noting some of Egan's observations concerning fantasy.

First, he points out that the deliberate or casual neglect of fantasy by the theoreticians does not necessarily reflect badly on them. On the contrary, he feels that "looking at the implications of children's fantasy might also suggest grounds for a synthesis of parts of traditionalist and progressivist movements" (Note 1). He would want to accept the "progressivist sensitivity to children's ways of learning and development" and the traditionalist "sensitivity to the delight of advanced knowledge" (Note 1). However, he clearly would reject any parts of these theories that express hostility to children's fantasy. Egan is careful to point out that he is not advocating teaching children fantasy, but rather that educators use the conceptual tools which children must have to be engaged in fantasy, to teach about reality. Finally,

he summarizes the most important implication of his discoveries of fantasy. That is:

...human beings learn very early the most profound and important things, and we cannot justify a primary curriculum of the vacuous trivia which is common in most of our public schools, or of meaningless disciplines which is common in some of our public schools and more of our private schools. (Egan, Note 1)

Thus, Egan's concerns with regard to fantasy are consistent with his concerns with education in general and lead directly back to the first stage of his development theory, the mythic stage.

Egan holds that the mythic stage is characterized by four features.

1. It provides its users with intellectual security through absolute accounts of things and fixed, precise meanings.
2. It is characterized by a lack of a sense of "otherness", or concepts of historical time, logical relationships, causality and geographical space.
3. It is characterized by a clear sense of the objectivity and autonomous nature of the world.
4. It is characterized by articulation and

understanding in terms of binary opposites.

Egan stresses that these four features are common between myth using people and children. With regard to the third point, he seeks support from Piaget by pointing out that the lack of sense of objectivity is similar to Piaget's findings concerning the confusion between the "inner" and "outer". However, Egan feels that this confusion is not limited to early life and development. Rather, it may be present to one degree or another throughout life. He says that, in fact, "we measure development in terms of the clarity with which we can distinguish between what is true about the world and what we think about the world" (1979, p. 15). The parallel between Erikson and Egan with respect to binary opposites is obvious. However, for Egan, this characteristic becomes less and less important as an individual advances through the different stages, and in fact disappears completely.

As a result of Egan's later work, a fifth feature should perhaps be added to this list. This point might be formulated as follows: the mythic stage is characterized by an active fantasy life.

The richness of a child's thinking is an important consideration for Egan. No less so are the general categories and tools of the mythic stage. For Egan, these are not rational and logical categories, but moral and

emotional ones. This has critical implications for learning. For Egan, children must learn through the categories that they have available to them, and unlike Piaget, logico-mathematical categories are not predominant. Simple observation of children dictates the approach to curriculum design at the mythical stage. That is, effective teaching can be most readily accomplished through the story form.

Egan holds that to "engage a child's interest in and understanding of knowledge is that it be organized into the kind of unit that fixes meaning and coheres with the other characteristics of children's thinking that we have noted" (1979, p. 17). This can best be accomplished through the story form. Stories, he reminds us, set up expectations and resolve them at the end, thus creating a whole, a unit, within which meaning and feeling are bound together and ultimately fixed.

The Story Form The use of the story form is central to Egan's curriculum design at the mythic stage and at the romantic stage. Egan holds that the story form is universal. Stories have a beginning which set up an expectation, a middle part which elaborates and complicates the expectation and an ending that resolves the expectation. Further, the story has numerous other characteristics which make it a desirable and effective teaching tool.

1. A story is a linguistic unit which can fix the affective meaning of the events which compose it, in much the same way as a sentence makes precise the semantic meaning of the phonemes that compose it.
2. Stories grant a type of satisfaction that history and experience withhold from us.
3. Stories provide the best medium for the moral and affective tools available to children.
4. Stories aid in developing the imagination.
5. Stories provide a good medium for transposing content from fantasy to reality.
6. Stories allow for different approaches to lesson planning than are currently dominant.

Egan is careful to note that he is not proposing to replace other forms of teaching and lesson planning with the story form. He clearly states that his views are not in conflict with:

...technologies such as behavioral objectives .
Perhaps one might better see the story form as a supplement to be used in planning; as the appropriate reappearance of an element which too exclusive drawing on models of industrial planning has tended to suppress. (Egan, Note 1)

The Romantic Stage. The distinguishing feature of the

Romantic stage is the development of a sense of the objective world. This is made in rudimentary but servicable concepts of:

1. "otherness",
2. historical time,
3. geographical space,
4. physical regularities,
5. logical relationships, and
6. causality.

For Egan (1979), it is in this stage that children begin to use the world to think with. In this observation, Egan concurs with Piaget's findings that all mental life tends to assimilate its environment. One important point that Egan makes is that although he feels the characterization of development in stages is artificial to a degree, the actual transition from the mythic to the romantic stage is quite sudden. He feels that each stage represents fundamental changes in the way children make sense of things.

For Egan there are two tasks for children in this stage:

1. They must make a new relationship with the world.
2. They must develop a sense of distinct identity, an event which he identifies with Erikson's

fifth or "identity vs role confusion" stage.

Egan continues by noting that in this emergence of identity, children tend to associate with things in the world that are very powerful or noble, things that transcend the world to one degree or another. This has important implications to the thesis that teaching, and thus learning, should proceed from the familiar to the unfamiliar. Egan suggests that children explore the world from the outside limits in, rather than from the familiar to the unfamiliar.

The child's perception and the meaning of binary opposites also changes in the romantic stage. Instead of finding these things within, children begin to look for them in the world. Egan's romantic mind "searches outside itself to the limits of the world for external binary opposites within which reality exists" (Egan, 1979, p. 31). Egan claims that this phenomena shows up in romantic students' fascination with extremes; the biggest, smallest, longest, hottest etc. Thus, for information to be attractive, it must be different; different from everything mundane and conventional. The romantic period is a period of exploration, of testing, exaggeration and discovery.

This description of the romantic period shows certain similarities with Bruner's category formation. Bruner holds that category formation is very closely related to acts of discovery. For Egan, it is in the romantic period that

children reach out toward the world.

Egan holds that, like the mythic stage, there is virtually no limit on the content of what may be taught successfully in the romantic stage. The criteria for success is not content, but rather that it be presented in a form that is romantic. And, once again, the story form remains important. The romantic story must be centered around the contrasts, forces, people or ideas in the world. Romantic ideas usually involve a struggle, and the dominance of the "good" over "evil". The dominant characteristic for Egan is that the individual hearing or reading the story knows exactly where they should stand in relation to the events of the story. But there must also be plausibility to the story. In other words, it must reflect reality.

Another important characteristic of this stage is the insatiable desire for detail. Egan points out that in the romantic stage, children exhaustively collect detail, whether the subject be football, rock stars, or the composition of stellar bodies. Thus, materials should reflect this passion for detail. This desire for detail can be compared with Bruner's functional and formal categories. Functional categories fulfill a concrete and specific task requirement. Formal categories specify the intrinsic properties required by the members of a class. In a sense, the romantic student's desire to collect information on

almost any given subject of interest shows the development of these types of category formation.

The romantic stage is also characterized by a tendency toward sentimentality. Precisely because sentimentality lends itself toward the excessive, it meshes nicely with the exploration of limits that characterizes the stage. As Egan says, "the process is one of excess and extremes being gradually controlled" (1979, p. 37).

The Philosophic Stage For Egan (1979), the transition to the philosophic stage is characterized by the "strengthening realization that all the bright bits and pieces are interconnected parts of some general unit" (1979, p. 50). With this an individual realizes that he/she is being determined by the world to one extent or another. The child becomes aware of the enormity of causal relationships. Egan says that children in this stage in the developmental process are "agents" of the processes of which they are aware. As a result, the major defining characteristic of the philosophic stage is a search for truth and the general laws of how the world works. Nor is the search confined to the objective world. On the contrary, Egan holds that in the philosophic stage the search turns inward.

It is important to note that Egan does not consider this stage as an expansion from the self, but rather a closer approach toward the self. The implications of this

for curriculum design are suggestive. Rather than an expanding horizons approach, the philosophic stage would seem to demand encouragement to dig within, to form theories and schemes and to make mistakes. That is, "the meaning of particulars is now derived primarily from their place within the general scheme" (1979 p. 53). This general scheme cannot be successfully imposed from without. It must be generated from within.

Egan says that there is a sudden shift into the philosophic stage, which comes about when the detail of romanticism requires an order imposed on it. Thus, general concepts like society, culture, the mind, evolution, human nature - become prominent in students language and thinking.

Egan also points to the development of hierarchies as a reflection of the tendency towards imposed order. He says this shows up in attempts to demonstrate who is the best at something, by forming hierarchies. When these attempts to form hierarchies fail to account for all instances of the subject at hand, the impulse shifts toward forming criteria through which to organize experience. Then once the criteria are developed, the "truth" can be, in Egan's words, "confidently", or "overconfidently" expressed. As a result, learning particulars of a subject become less than desirable for students. They show impatience for details.

Egan points out that this impatience with detail is not necessarily regressive.

The philosophic generalizations might seem very crude and simpleminded compared with the complexity of the romantic organization. But it is the generation of very abstract philosophic ordering concepts that will eventually permit more powerful and refined organization. (1979, p. 55)

Egan holds that one feature of those stages beyond the romantic may be unfashionable in contemporary education. That is, the sheer quantity of knowledge is educationally important. Egan arrives at this conclusion in the following manner. At the romantic stage, students are engaged by things that give a sense of transcendence. At the philosophic stage, a student's interest is engaged by things that help elucidate general principles and laws. Success in achieving these general principles depends, to a large extent, on the student having a large body of knowledge which can be organized under these general laws. Thus, success in the transition to the philosophic stage depends on having this large body of knowledge. However, he is quick to point out that although a large body of knowledge is not sufficient to guarantee success in this stage, a lack of a large body of knowledge is sufficient cause for failure at this stage. Further, it justifies letting students make

a "scatterbrained gathering of divergent knowledge" (1979, p. 58) in the romantic period.

Educational development through this period is characterized by a gradual increase in sophistication in a student's philosophic schemes. The goal here is to let the students create schemes which the teacher can introduce anomalies into. These anomalies then become the stimulus for revision of the scheme, resulting in a more sophisticated scheme. Egan derives what he considers an important general principle for teaching from the question of schemes and anomalies. That is, one should first encourage a student to securely develop a general scheme before introducing anomalies that will challenge its adequacy as a true account of the process. This, he says, demands a particularly sensitive teacher. This same observation could also be said to apply to Bruner's act of discovery. The implication is that these acts must be guided and mediated by a sensitive teacher.

The story form remains important at this stage, although perhaps less obviously so than at the mythic or romantic stage. Egan points back to the real benefit of a story; that it ends. By virtue of the fact that a story ends, a determinate meaning can be incorporated into it. The philosophic stage demands that students impose an order on a group of disparate elements; i.e., they must impose a

beginning and an end.

Egan also points to the essentially narcissistic nature of this stage. He accounts for this by pointing out that the philosophic stage is essentially inward looking. He holds that for a mature teacher it is difficult not to try and correct this narcissism. But he says, immaturity is not the fault of the immature. The abandonment of the particular in favour of the general is a necessary stage in educational development.

For Egan, the teacher's role at the philosophic stage is to mediate the "dialectic process of interaction between the general scheme and particular knowledge" (1979, p. 65). The teacher's role is that of a regulator, a generator of anomalies to stimulate the student. The teacher must provide numerous schematic options, which the student should be expected to choose from.

Egan equates the dialectical process between schemes and anomalies to Piaget's assimilation, accommodation and equilibration process. However, it should be noted that this process is not characteristic of all of Egan's stages, but rather is centered in the philosophic stage.

The Ironic Stage The ironic stage is the last of Egan's four stages. Development through the philosophic stage is marked by an increasing sophistication of the schemes in response to accumulating knowledge. Students

enter the ironic stage once they realize that even the most general schemes cannot accommodate all the particulars and that no general scheme can adequately reflect the richness and complexity of reality.

For Egan, in order to successfully enter this stage the student must maintain his belief in the "truth", but abandon the concept that it can be encompassed in a general scheme. Rather, only particulars can be established or demonstrated as true. Like entry into the other stages, this can be a period of crisis for an individual. The crisis can only be avoided when the student realizes that the schemes cannot be verified as true or false, but only as useful.

The process of development at the ironic stage is, like the other stages, a dialectical one. However, whereas in the philosophical the scheme is dominant, in the ironic stage, the particulars are dominant. Thus, the scheme may be abandoned or modified when confronted with particulars that do not fit it. Further, the perception of "truth" in particulars leads to an end of narcissism.

Egan calls this stage ironic, because at this stage the mind knows what it is contributing to knowledge. It represents an understanding of where the individual ends and the world begins. Any confusion between the individual and the world is over. In a sense, Egan's view of irony is similar to Platonic irony, since once schemes are abandoned

as truth, the ironic person "knows that he knows nothing".

Egan applies the use of the story form in the mythic, romantic and philosophic stages to impose "more or less complex mental forms on knowledge about the world, and involves a greater or lesser failure to distinguish the contribution made by the mind" (1979, p. 85). For Egan, irony is the "great dissolver" of stories. He clarifies this view by suggesting that in the mythic, romantic and philosophic stages, stories impose complex mental forms on knowledge. In the ironic stage, the mind knows the part it plays in knowledge of the world. Thus, the ironic adult is free to pick and choose from schemes and particulars. The ironic adult is also free to pick and choose among stories. As a result, education in the ironic stage becomes a cooperative venture between the student and teacher.

To truly enter into and live in the ironic stage is not an easy accomplishment. Egan likens entering this stage to the opening up of mystical insight, by forgetting oneself. For him, living in irony is to establish a truth beyond ego, an event that he holds is rare, but the proper aim of education.

Like Bruner, Egan believes that developmental stages are not to be passed through sequentially and left behind. This attitude can lead to the feeling that stages should be considered as "regrettable imperfections" to be passed

through as quickly as possible. Further, this supports the view that the ability to repeat or reproduce information is an indication that it has been learned. This can not be the case because not all learning is "equally valuable" and some learning is not educationally valuable at all. For Egan, educational development is cumulative. "Ideally we leave nothing behind; a properly educated adult should still be able to see the world with the eyes of a child" (1979, p. 92).

To develop this observation further, Egan turns to Piaget's concept of "aliment". However, Egan's view differs from Piaget's in expanding the concept. The term aliment is related to how knowledge is presented, rather than the particular knowledge itself.

Put simply, if the knowledge is organized appropriately for the stage the student is at, it will serve as an aliment; if it is organized in a manner appropriate to a higher stage, it will remain inert. (Egan, 1979, p. 91)

Egan makes several other important observations on development through the stages. These are that:

1. education is a natural process,
2. the sequence of stages is a necessary sequence,
and
3. an individual's progress through the stages

rarely follows an ideal path.

The observation that education is a natural process may raise some debate among theoreticians. However, there would seem to be several important implications to this observation. First, if education is a natural process, all theorizing and analysis of education must assume this as its basic presupposition. Second, even seemingly erratic behavior, such as that which Egan finds at the romantic stage must be seen as natural, not aberrant behavior to be corrected by rigidity and uncompromising discipline. Third, educational materials must be designed and implemented in a natural manner; that is, appropriately for the students stage.

Egan's assertion of the necessity of the sequence of stages would at first seem to contradict his position that virtually any subject can be taught at any age. However, Egan is not discussing subject matter here, but rather the form of understanding of each stage, a position also assumed by Bruner. For Egan, the events of philosophy may be taught at the romantic stage, but not philosophically. This is because the earlier stages contribute things that are pre-requisite to later stages. Thus, accelerating development is not an optimal situation. Rather, students must move from one stage to another when they are ready, when it is natural to do so.

The final observation addresses the fact that development is ultimately not predictable, because students rarely follow educational theory. This point reinforces both the importance of treating education as a natural process and the importance of viewing education from a broad perspective.

Comments on Egan

Elton (1980) finds much to praise in Egan's theory. He finds that "unlike prevalent theories who wish to apply externally derived psychological concepts to education, Professor Egan starts with what education is all about" (p. 20). Elton goes even further than this. He claims that once he had studied Egan's stages, it seemed obvious that the theory was true and that everyone passes through one or more of Egan's stages. However, claiming that something is true because it is obvious is not acceptable scientific procedure. The task remains to verify Egan's claims. Thus, Elton can remain only an enthusiastic supporter of Egan's theories.

Schubert (1983) levels a somewhat more critical attack against Egan, even though he says he is drawn to this theory over other theories. In particular, he points out that a comprehensive theory must deal with all of human nature and its cultural context. For Schubert, Egan's work largely ignores the ethical dimension of education. Egan (1979)

holds that there may be

...ignorant happy people, and ignorant psychologically well-adjusted people, and ignorant socially well-integrated people, and ignorant physically strong people, and ignorant good people, but there are no ignorant educated people. (p.156)

Schubert says that this minimizes the importance of the connection between education and happiness and social integration. For Schubert, there must be a connection between them. Schubert's second criticism is more to the point. Egan holds that after a certain point the critical periods in each of the mythic, romantic stages are closed off, and that although further exposure to mythical and romantic content may be entertaining it is not an aliment to further development in those stages. Schubert questions that this is the case, pointing out that he can still have a "mythic" experience of mythic content, while reading the Greek classics. However, he presents no criteria for distinguishing his mythic experience from simple enjoyment of a myth.

Schubert goes on to suggest that Egan's "four productive categories" be used as "sources of meaning" rather than stages. He justifies his preference by contemplating how "disturbing" it would be to be relegated to one of the stages. He does not, however, explain what a

source of meaning is and how it could be distinguished from a stage.

Egan's position can also be examined using Bruner's four criteria for a theory of instruction. For Bruner, a theory must concern itself with experiences that encourage a pre-disposition to learn. Egan accounts for this criteria in two ways. First, he holds that education is a natural process. Thus, a child will have a natural pre-disposition to learn. Second, by structuring content according to his stages, which are natural stages through which everyone passes, learning is encouraged.

Bruner's second criteria is that knowledge be structured in a way that it can be most readily grasped. For Egan, the most appropriate structure is the story form. Bruner's third concern is that a theory must specify the most effective sequences for presentation of material. For Egan, any material can be presented at any stage, more or less effectively. However, for Egan, it is not the sequencing of materials that is of major concern, but rather the sequence of the method of presentation of materials.

Bruner's final criteria is that a theory should specify the nature and pacing of rewards, and that they should move from extrinsic to intrinsic. It is here that Egan most radically departs from Bruner. Egan is not concerned with what types of rewards should be used to motivate children or

how rewards should be generated. Egan never discusses rewards. The ideal or "reward" of education appears to be the satisfaction of learning and the joy of being an educated person.

Chapter 3

METHOD

Design and Subjects

A three-factor design, including four instructional formats, two age stages of learners, and three test intervals was tested. The first two conditions were treated as between-subjects variables, and the third as a within-subject factor.

The design was thus a four Instructional Format (control unit, mythic unit, romantic unit and philosophic unit) X two Stage of Learners (romantic stage (9th grade) and philosophic stage (11th grade)) X three Test Interval (immediate vs 2-week delay vs four week post delay) mixed model.

The subjects were 60 grade 9 and 60 grade 11 students from Port Perry High School, Port Perry, Ontario.

Materials

The experimental passages consisted of four versions of a unit in history (see Appendix A). The content passage, entitled Loyalist Migration was drawn from a standard history book used at the school (Herstein, Hughes and Kibyson, 1970). None of the learners had previously covered this material. The control passage used the verbatim narrative content from the text with quotations from

historical sources deleted. The other three versions were derived directly from this content and were rewritten in a format to conform with Egan's (1979) three levels of development (mythic, romantic and philosophic). Detailed descriptions of the characteristics of materials in each stage can be found in the Literature Review.

Pools of 20 multiple-choice and 20 short answer items were initially constructed. Ten items were randomly selected from each pool to create two alternate or parallel forms labelled "X" and "O" on a cover sheet. Each learner therefore was tested on a 10 item recognition test composed of multiple-choice questions to measure comprehension, and a 10 item cued recall test composed of short answer questions used to determine the retention of information presented in the text (Anderson, 1972). A free recall test was also employed to determine the retention of information (see Appendix B). Finally, the vocabulary portion of the Nelson-Denny Reading Test was employed as a covariate (see Appendix C). Each test had instructions regarding the nature of the test and how to respond.

Instructions introducing the students to the overall procedure were printed on a cover sheet along with a line for the learner's name (see Appendix D). A sheet of basic arithmetic problems was used for the interpolated task. Precise instructions were also prepared for the

experimenters (regular classroom teachers) covering every detail of the procedure (see Appendix E).

For the initial experimental session, the materials for each learner were assembled in a pre-coded envelope in two stapled packets. The first contained the instructions and reading materials appropriate to the condition. The second packet, a testing set, was preceded by the cover sheet marked "X" or "O", and a line for the learner's name. This packet included the interpolated task, followed by the free recall test, multiple choice and short answer items. Coloured spacers with directions to wait for further instructions were placed between each test. The delayed and post delayed test sets contained the same testing content except for the "X" or "O" on the cover sheet and the interpolated task. The order of test forms was completely counterbalanced during assembly in an effort to offset test-retest effects.

Procedure

The experiment was conducted by the normal classroom teachers. The instructions regarding the entire procedure were given to each teacher and they met beforehand to cover any questions. During the actual experimental session, the teachers briefly introduced the activity and randomly distributed the envelopes, with all four conditions being conducted in the same room, to groups of approximately 30.

The students were asked to remove the materials from the envelope. The test materials were set aside. The passage instructions were read aloud while the students read along silently. Any questions regarding procedure were answered at this time. Students were then given 15 minutes to read the materials of their particular condition. They were then asked to set the passage aside and pick up the test materials.

The subjects put their name on the cover sheet and proceeded with the interpolated activity for 1 minute. After this, they were given 10 minutes to respond to the free recall test. Finally, they were allowed 15 minutes to answer the recognition and cued recall questions.

Two weeks later, during a scheduled class, the same tests were administered to the subjects without previous notice. The same time periods were allotted for task completion. After a second two week period, the test set was administered to the subjects again without previous notice, again using the same procedure. Following this session, students were informed of the specific nature of the study, and any questions they had were answered.

Chapter 4

RESULTS

The analysis of results was conducted using scores on the Nelson-Denny Reading Test - Vocabulary section as a covariate. This adjustment was especially necessary in the light of the developmental differences in the prose passages and the testing of learners from different grade levels, thus potentially different levels of reading ability. Vocabulary scores were examined both in light of their ability to predict the criterion scores (dependent variables), and as a test of possible interaction between treatments and the covariate.

Only the dependent variables which produced significant treatment effects are reported here, as the others were not interpreted. Significant covariate effects were found for the following: Cued Recall Immediate, $F(1,100) = 11.72$, $p < .001$; Idea Units Immediate, $F(1,100) = 15.05$, $p < .001$; Total Words Immediate, $F(1,100) = 6.57$, $p < .01$; Total Words Delay, $F(1,97) = 6.31$, $p < .01$; and Cued Recall Post Delay, $F(1,92) = 13.42$, $p < .001$. All treatment by covariate interactions were not significant, indicating that the assumption of homogeneity of regression was met.

Analyses of Treatment Data

The multiple-choice recognition test, short-answer cued recall test, and the free recall test were all used during

each testing session. The multiple-choice test was scored for number of correct responses, with 10 points possible. The 10 short-answer items were assigned two points each, with partial credit given to responses containing less than the total concepts required. (Model answers for each passage are included in Appendix F.)

Free recall protocols were scored using three indices: total words recalled, idea units recalled and intrusions. After irrelevant and incorrect content was eliminated from the free recall protocol, the total number of words was enumerated. In order to score for idea units, the passages were first broken down into idea units by three independent raters. An idea unit was defined as a single, complete idea, usually represented by a sentence or clause. An interrater reliability of .96 was obtained. The number of idea units identified for each passage was: control - 191, mythic - 136, romantic 173, philosophic - 171. For each passage a master form was created, and learner protocols were scored based on the presence of the indicated ideas. Intrusions were ideas which were contextually derived from the passage, but constituted either unstated inferences or plausible fabrication. The vocabulary test was scored for total correct, as prescribed in the manual.

The two multiple-choice test forms were assessed for equivalency, and a significant difference was found ($t \neq$

4.58, $p < .01$). Due to the apparent non-equivalency of these two forms, further analyses were completed for each form separately.

A test of equivalence yielded no significant difference between the short answer test forms. The repeated measure condition was treated as multiple dependent measures to ensure against any possible differences between the two. The free recall tests were true repeated measures. Due to the high independence of the three scoring indices, a multiple analysis of variance with repeated measures was used. Finally, due to the probable influence of verbal ability on response performance (as measured by a vocabulary test), the vocabulary test scores were included in all analyses as a covariate.

Recognition Test

The non-equivalency of the two multiple choice forms prevented the analysis of pooled results. Separate analyses of variance were therefore completed for each form and each test interval, to simply gather what information was available. Table 1 shows means and standard deviations. Results on the immediate and first delay test produced no differences. Only the second delay test yielded a significant difference on both forms for grade (both $p < .05$), with the 9th graders outperforming the 11th graders. Due to the tentative nature of these data, no further

consideration was made of them.

Cued Recall Test

The short answer tests were equivalent, and the results were pooled in all subsequent analyses ($t = .62, p > .05$). Means and standard deviations for all the conditions of the cued-recall test are listed in Table 2. Results of the multiple analyses of variance with covariate yielded a significant overall Hotellings ratio for Passage, ($F(9,275) = 1.92, p < .049$) and grade ($F(3,93) = 4.19, p < .008$). Univariate analyses produced significant effects on the Immediate and Post Delayed test for Passage, ($F(3,94) = 3.90, p < .01$) and ($F(3,94) = 2.69, p < .05$), respectively. Significant univariate effects were obtained for all three dependent measures on the grade condition, Immediate ($F(1,93) = 4.88, p < .03$), Delay ($F(1,93) = 3.98, p < .05$), and Post Delay ($F(1,93) = 11.90, p < .01$).

Post hoc analyses on the Passage univariate identified which form was most effective. A Tukey multiple comparison test indicated that the cued recall of the Mythic passage was significantly better than the Romantic and philosophical passages (both $p < .05$) and marginally different from the Control group ($p = .06$).

Free Recall Test

The same free recall tests were scored using three separate measures of evaluation. The total word, idea unit

Table 1: Means and Standard Deviation for
Multiple-Choice Test Responses

Passage		Grade 9		Grade 11	
		M	SD	M	SD
Con	Immediate	5.30	2.42	5.35	2.49
	Delay	4.84	1.72	4.71	2.30
	Post-delay	5.23	1.36	4.00	1.46
		n = 12		n = 13	
Myt	Immediate	5.75	1.60	6.46	1.85
	Delay	5.41	2.23	4.23	1.58
	Post-delay	5.00	1.53	3.61	1.12
		n = 12		n = 13	
Rom	Immediate	6.00	1.82	5.18	1.90
	Delay	5.10	2.28	5.06	1.43
	Post-delay	4.90	1.52	3.93	1.76
		n = 10		n = 10	
Phi	Immediate	4.50	2.23	5.06	1.76
	Delay	3.75	1.60	4.50	1.75
	Post-delay	4.66	1.66	4.56	1.50
		n = 12		n = 16	

Table 2: Means and Standard Deviations for
Fill in the Blank Responses

Passage		Grade 9		Grade 11	
		M	SD	M	SD
Con	Immediate	8.73	3.03	7.21	3.17
	Delay	7.69	4.20	6.32	3.76
	Post-delay	5.11	2.71	4.00	3.64
		n = 12		n = 13	
Myt	Immediate	11.95	4.10	9.00	4.53
	Delay	10.20	4.20	7.65	3.08
	Post-delay	8.20	3.62	5.76	3.50
		n = 12		n = 13	
Rom	Immediate	7.17	4.87	8.18	4.34
	Delay	7.05	4.18	6.50	3.19
	Post-delay	7.05	3.51	3.96	3.01
		n = 10		n = 16	
Phi	Immediate	7.33	3.82	7.62	3.76
	Delay	7.54	4.08	7.46	3.93
	Post-delay	5.12	3.28	5.75	5.16
		n = 12		n = 16	

and intrusion data were therefore subjected to a multiple repeated measure analysis of covariance. Means and standard deviations for each measure are shown in Tables 3, 4 and 5. (Due to the high non-occurrence of intrusions in protocols, variance was predictably erratic and caution was exercised in interpretation.) The first set of analyses examined the overall main effects pooling across the repeated measures. A significant overall multivariate effect was obtained for the Grade x Passage Interaction, ($F(9,263) = 2.70, p < .005$). The univariate effects occurred on the idea unit measure, ($F(7,90) = 2.61, p < .05$), and a marginal difference on the intrusion dependent variable ($F(7,90) = 2.55, p = .06$). Figures 1 and 2 represent these interactions.

Post hoc analysis of the passage by grade interaction, using Tukey's test, yielded a statistically significant difference between the ninth grade mythic passage group, and the eleventh grade romantic group ($t(1,24) = 3.64, p < .04$). The two mythic groups were also marginally different ($t(1,23) = 2.89, p = .058$). Post hoc analyses of the marginal intrusion interaction were predictably marginal, with only the ninth grade mythic versus philosophic groups showing a statistically weak but interesting effect ($p = .10$).

The overall multivariate test for Passage yielded a

Table 3: Means and Standard Deviation for
Idea Unit Responses

Passage		Grade 9		Grade 11	
		M	SD	M	SD
Con	Immediate	11.29	5.77	11.50	5.69
	Delay	8.66	5.54	8.57	3.88
	Post-delay	5.37	3.80	5.57	3.43
		n = 12		n = 13	
Myt	Immediate	18.04	5.28	10.73	4.37
	Delay	14.09	5.63	7.46	4.00
	Post-delay	10.22	4.60	6.11	3.24
		n = 11		n = 13	
Rom	Immediate	15.71	4.00	10.65	6.96
	Delay	11.50	4.80	5.87	4.32
	Post-delay	8.14	3.32	4.09	3.84
		n = 7		n = 16	
Phi	Immediate	12.20	6.23	10.56	6.84
	Delay	8.70	5.75	8.28	5.44
	Post-delay	5.54	3.82	6.53	4.99
		n = 12		n = 16	

Table 4: Means and Standard Deviation for Total Word Responses

Passage		Grade 9		Grade 11	
		M	SD	M	SD
Con	Immediate	141.91	56.90	117.23	57.75
	Delay	114.33	64.59	94.53	51.76
	Post-delay	65.66	33.23	64.07	37.14
		n = 12		n = 13	
Myt	Immediate	167.18	38.65	117.07	54.98
	Delay	128.45	59.83	95.46	52.96
	Post-delay	85.09	38.50	60.76	30.24
		n = 11		n = 13	
Rom	Immediate	161.79	29.66	103.75	54.51
	Delay	118.28	65.98	64.43	49.02
	Post-delay	91.57	39.31	34.75	36.34
		n = 7		n = 16	
Phi	Immediate	133.16	60.65	105.87	69.23
	Delay	94.41	58.95	90.75	52.63
	Post-delay	62.50	44.45	59.93	47.73
		n = 12		n = 16	

Table 5: Means and Standard Deviation for
Intrusions

Passage		Grade 9		Grade 11	
		M	SD	M	SD
Con	Immediate	2.50	2.19	1.84	1.57
	Delay	1.91	1.72	2.15	1.06
	Post-delay	1.00	1.12	1.38	1.38
		n = 12		n = 13	
Myt	Immediate	1.18	1.99	2.00	2.19
	Delay	.54	.68	2.00	1.82
	Post-delay	.54	1.21	1.30	1.25
		n = 11		n = 13	
Rom	Immediate	1.84	1.57	1.25	1.18
	Delay	2.14	2.26	.56	.72
	Post-delay	.71	1.11	1.06	1.43
		n = 7		n = 16	
Phi	Immediate	2.25	1.60	1.50	1.09
	Delay	2.16	1.11	1.81	1.64
	Post-delay	1.08	.90	.87	1.02
		n = 12		n = 16	

Figure 1. Mean number of idea units recalled on the immediate test in the grade by passage interaction.

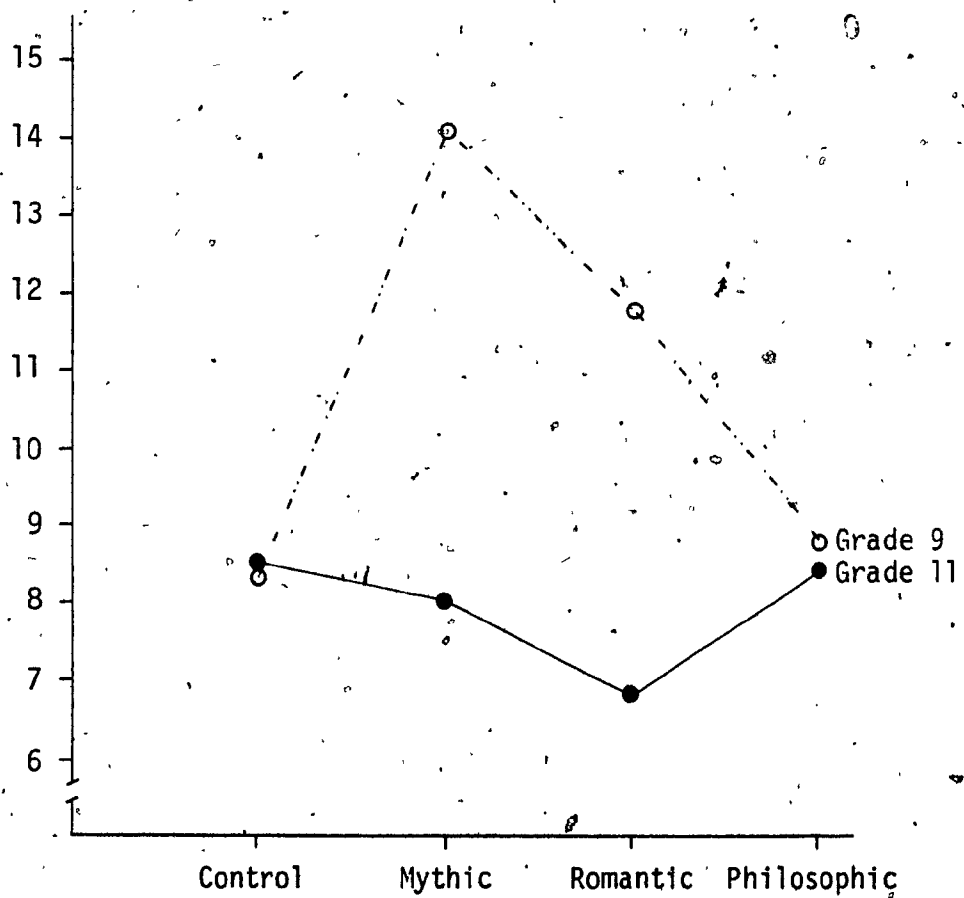
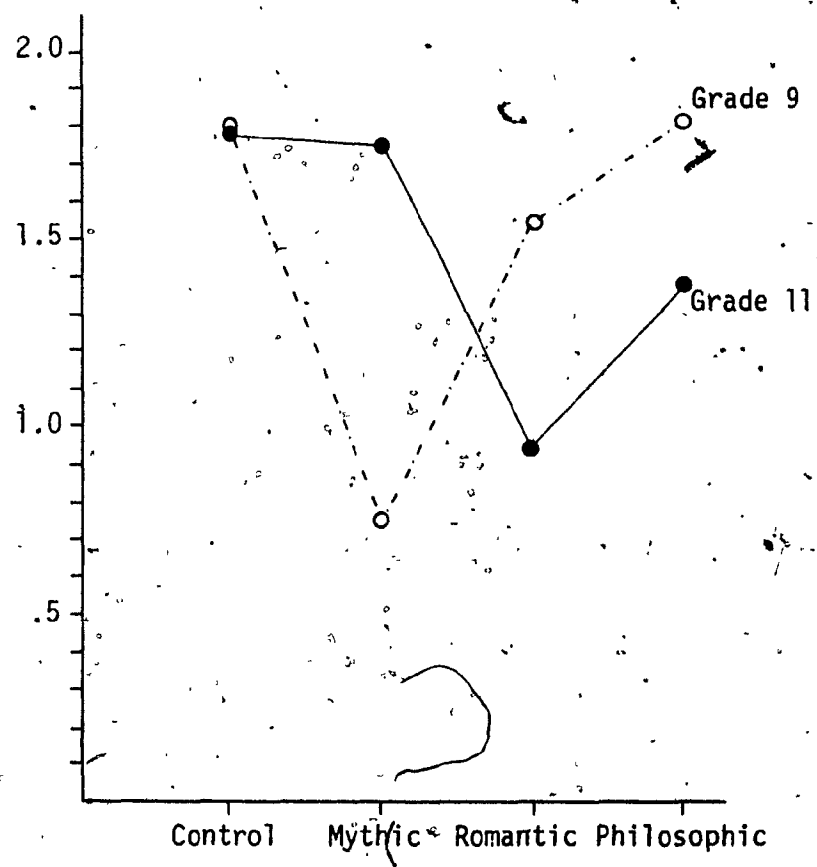


Figure 2. Mean number of intrusions produced on the immediate test in the grade by passage interaction. (p .06)



significant ratio, $F(9,263) = 2.05, p < .03$. The univariates, however, produced a marginally different but useful effect for idea units only ($F(3,90) = 2.46, p = .068$). Post analysis did not produce a significant difference among means, even though the mythic passage produced scores 26 percent better on average than the other three passages. Grade yielded a highly significant overall effect $F(3,93) = 5.89, p < .001$, while univariate effects were obtained for both idea units and total word measures, ($F(1,89) = 15.70, p < .001$) and ($F(1,89) = 17.66, p < .001$), respectively. In both cases the ninth graders outperformed the eleventh graders.

A multivariate analysis of between- and within-subject factors produced overall effects for Grade by Time ($F(6,87) = 2.22, p < .05$), and Time ($F(6,87) = 47.70, p < .001$). Univariate effects were obtained from two Grade by Time dependent measures, Total Words ($F(6,87) = 4.91, p < .03$) (see Figure 3) and Intrusions ($F(6,87) = 3.74, p < .05$) (see Figure 4). A marginal effect was also obtained for idea units ($p = .07$). Time univariates were obtained on all three dependent variables, idea units ($F(6,87) = 187.09, p < .001$), total words ($F(6,87) = 231.77, p < .001$), and intrusions ($F(6,87) = 21.36, p < .001$).

Post hoc analysis on the Grade x Time interaction, using total words, produced statistically significant

Figure 3. Mean number of total words recalled on the post delay test in the grade by time interaction.

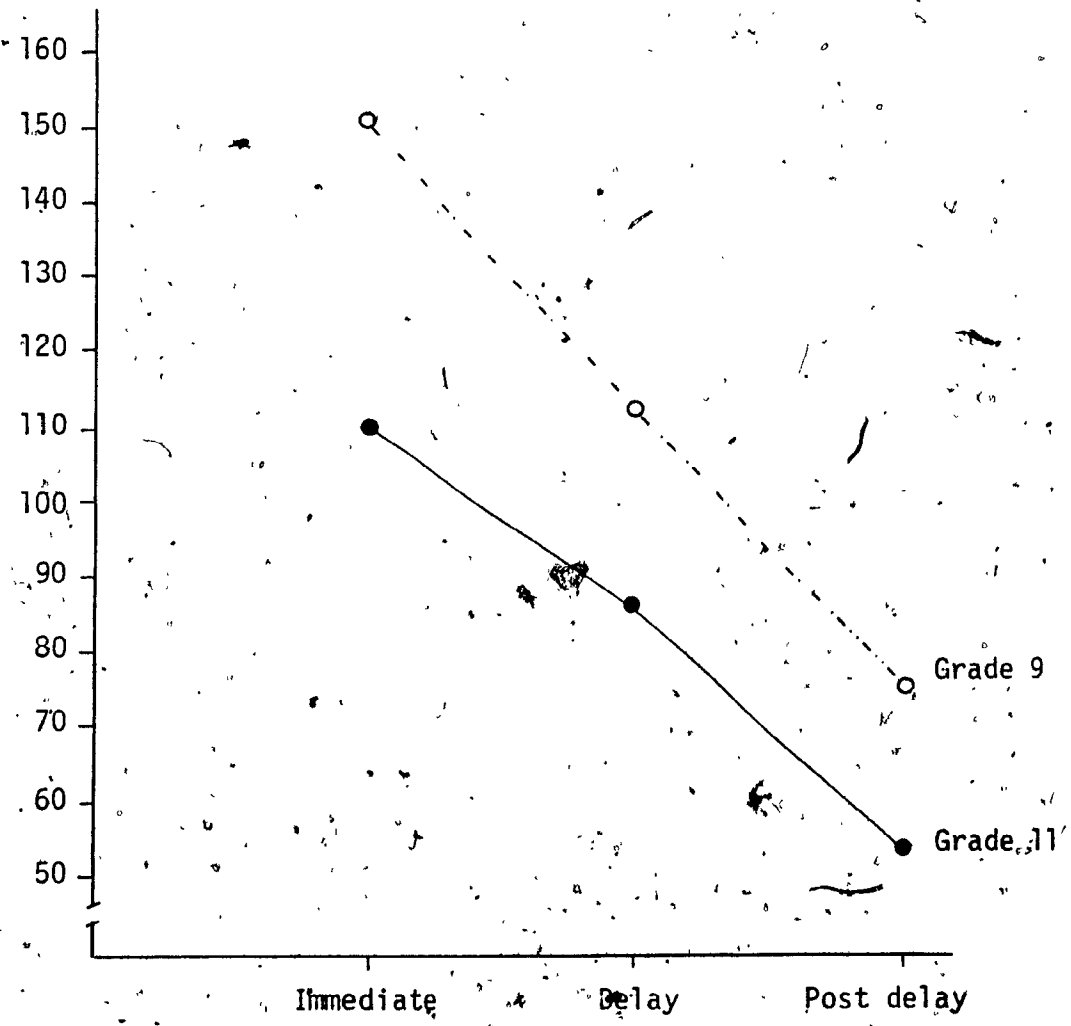
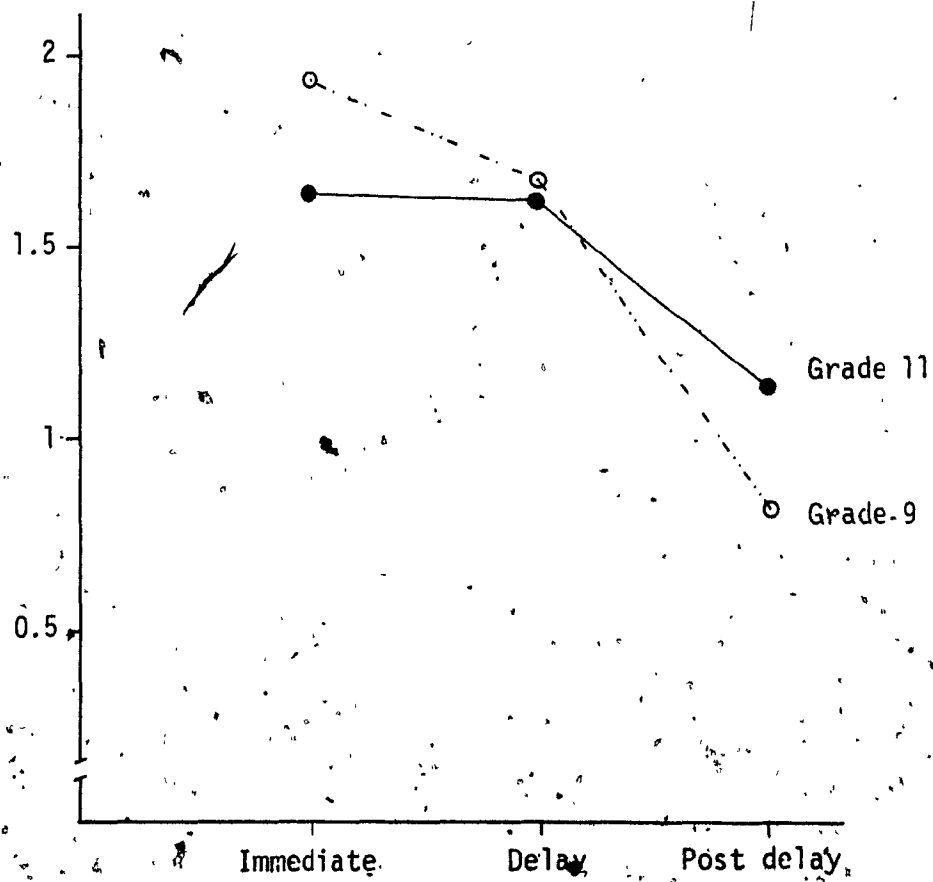


Figure 4. Mean number of intrusions produced on the post delay test in the grade by time interaction.



effects for all mean pairs and groups except 11th grade, time 1 with 9th grade, time 2, and grade 11, time 2 with grade 9, time 3. All other effects were $p < .01$. The intrusions interaction resulted in differences for grades 9 and 11 from time 2 to time 3 ($t(1,42) = 4.80, p < .01$) and ($t(1,42) = 3.18, p < .05$) respectively. No other effects were significant.

The post hoc's for the Time variable were as follows: in idea units, all three times differed (all $p < .001$), in total words, all three differed (all $p < .001$) and intrusions, time 1 and 2 with time 3 (both $p < .01$).

Chapter 5

DISCUSSION

Several hypotheses were presented in the rationale, based on Egan's (1979) suggestions for the construction of educational materials. A given group should respond more positively to materials constructed in accordance with Egan's criteria for that stage of development. Thus, grade 9 students should respond best to the romantic passage and grade 11 students should respond best to the philosophic passage. These materials should be understood and retained better than other materials, primarily because they match the way in which the learner views and participates in the world. Further, the information contained in materials constructed for a stage above a given stage should be inert, and should be less well understood and recalled. Finally, materials constructed for a stage below a group's level should be comprehended, but not necessarily contribute to cognitive development.

The difficulties associated with testing Egan's position lay not so much in the implementation of the above hypotheses, but rather in the problem of generating dependent variables which were sensitive enough to assess the developmental aspects of the design, i.e., the passage types and learner's ages. The effectiveness of properly designed materials may not surface immediately, especially

when dealing with the global effects discussed by Egan. The appropriateness of the cross-sectional approach used in this study was as much under scrutiny as the theoretical premises of Egan. Unfortunately, the results yielded a mixed picture, suggesting inadequacies and strengths in both the theory and the method. For example, differences were found on passage recall, but not in the manner expected. The wrong learners performed better on the wrong passage, but in the right order. The following discussion therefore pursues both the theoretical and methodological alternatives as possible explanations for the results.

Theory vs. Methodology

The expectation that the idea unit measure would best detect performance differences was sustained. (Schmid, Note 2). It was with this dependent variable that the grade by passage interaction, the most crucial of the study, was found to be statistically significant. However, as shown in Figure 1, two anomalies occurred. Most notable was the poor performance of the older students on the mythic and romantic passages, or conversely, the superior recall of the 9th graders on the mythic passage. Why this difference occurred is problematic. While it is evident that there were no differences between the groups on the control and philosophic passages, it may be that the mythic and romantic passages approached, or succeeded in serving as an aliment.

It is worth noting that the style of the control passage was the most familiar to all the subjects, and while that style obviously failed to inspire a high level of interest, at least a "standard" amount was learned. This standard level of performance held true for all the passages for the 11th graders and one can only conclude that they served as either low level entertainment or were inert. A lack of meaningful differences prevents one from saying which. Grade 11 is also particularly notorious for its general lack of motivation (Grinder, 1973), further complicating the possibility of drawing firm conclusions. In that Egan suggests that properly constructed materials should in fact attract the learner, these data would appear to speak poorly of his theory. However, the issue of methodology suggested above may still account for these effects. If one correctly assumes that 11th graders are unusually difficult to motivate and/or communicate with, it would stand to reason that a one-shot, cross-sectional study would be unable to detect a "developmental" difference. It may be that, even if the materials properly reflected a theoretically sound premise, more time is required before such materials could "take effect". In other words, Egan's format is sufficiently different from other course materials that it requires some accommodation by students. Materials that have potential to be an aliment to development cannot begin to

influence cognitive processing until the unique aspects of presentation style become familiar, resulting in improved correspondance between the nature of the material and the receptive level of the learner. One might conclude that only a longitudinal study can adequately assess the effectiveness of such a curriculum change. In as much as there are no known published examples of a curriculum, or even a single course, that has been designed and implemented using Egan's theoretical position, measuring the characteristics of a single prose passage with the all-encompassing nature of human cognitive development may be presumptuous. Equally presumptuous may have been the assumption that Egan's prescriptions are sufficiently grounded in theory to be considered falsifiable. There were nevertheless pursued in light of their potential instructional usefulness.

With respect to the grade 9 students, the pattern of response was quite different, and in some ways more complimentary to Egan's position. However, as mentioned above, the learners responded best to the wrong passages, albeit in the right order. In other words, although the 9th graders performed significantly better on the mythic passage which is below their theoretical stage, their performance, decreased successively through the romantic, philosophic and control passages. If one assumes that 9th graders are

easier to motivate than grade 11 students, it would stand to reason that one cross-sectional study may be able to detect a developmental difference. (The level of cooperation received from the two groups in the conduct of the study supports this position). It appears that the mythic passage was an aliment to this group. The response to the romantic passage, relative to the philosophic and control passages, may indicate that the romantic passage was more of an aliment than inert. The close correspondance in response to the philosophic and control passages suggests that they were inert, a result completely in line with Egan's theory.

The results of the cued recall test confirm the above, though without the interaction. The poorer performance of the older students was repeated on this test. As well, there was an overall superior recall of of the mythic passage, again suggesting that it alone may have served as an aliment.

The relative effectiveness of the various passages with grade levels received additional, though ancillary, support from the occurrence of intrusions. Intrusions provide an indirect measure of comprehension because their appearance results from the extent to which learners gather the gist of the passage and create inferences from the gist in subsequent recall. That is, they think they recall the content, but they have never actually encountered it. The

only point of interest in this interaction (as seen in Figure 2) was the dramatic decline of intrusions on the mythic passage for the 9th graders. The passage to which they responded most effectively yielded the fewest intrusions, presumably because of its relative clarity and usefulness. There was no need to infer. The control passage, on the other hand, while seemingly neutral, produced a high number of intrusions for both groups, suggesting that "standard" prose is not as effective as clear as is sometimes assumed.

The final factor to consider was the time effect. No interesting interactions occurred with the passages, and only an incidental effect occurred between the grades. Perhaps the only noteworthy result was that forgetting was much more substantial between the second and third tests as represented by intrusions (see Figure 4). Grade 9 also forgot relatively more, though their performance on total words was still superior to the 11th graders. These results hold no theoretical significance, and simply indicate that the methodology yielded typical forgetting curves.

Development of the Learners

While the above discussion suggests that Egan's theory may have received potential support, the failure of the groups to respond to the appropriate materials must still be addressed. Setting aside the possibility of methodological

complications, it may be that the students of this study were not "ready" for the materials presented.

Egan (1979) associates the ages of the grade 9 students in this study with the romantic stage. Thus, the grade 9 subjects should have responded best to romantic materials. However, Egan also holds that development is cumulative. For this reason, if the grade 9 students had not successfully completed the mythic stage, they would not be ready to fully benefit from the materials structured for the romantic stage. Based on the assumption that Egan's theory is valid, the discussion of the results presented above would suggest that the grade 9 subjects are approaching or are in transition to the romantic stage. Similarly, by virtue of their ages, the grade 11 students should have responded best to the materials structured for the philosophic stage. However, this presupposes that the grade 11 students have not only successfully completed the mythic stage, but also the romantic stage. The fact that they did not respond differently to any of the passages would be either a disconfirmation of the theory, or suggest an inadequacy in the content or form of the materials, or better stated, the inability of the materials to motivate or elicit a proper response from the learners under study. Egan (1979) assumes that as children develop into adulthood, the effects of later stage processes build on earlier ones.

This development is cumulative in nature, and both enables learners to benefit from a given content as an aliment, and in turn cultivates the developmental process to produce receptivity to "higher" levels of content. Thus, it is possible, with respect to the historical prose content treated in this study, that learners were not developmentally prepared to accept this material as an aliment. Other factors, such as social, moral or intellectual development may in fact conform to Egan's theoretical confines. However, when material of the sort utilized in the study are applied, learners in the present school system may be unable to take full advantage of its structure.

Egan (1979) uses what he calls "metaphoric" quantification to describe the minimum prerequisites for successful development of any stage. He holds this type of quantification as a useful tool, not precise statistics. It serves to emphasize the importance of successful development of one stage rather than to quantify it. For example, he holds that development of 25 percent of the capacities of one stage is prerequisite to permit the development of the next stage. However, development of only 25 percent of the capacities of a stage will permit the development of only 5 percent of the next stage, and nothing of the stage above that. The implication of this view to this study is that if

the grade 11 group failed to successfully complete the mythic stage, they would have only limited access to the romantic stage, which in turn would allow them less ability to develop the skills of the philosophic stage.

Egan (1979) sees educational development as a process of maturing, and his theory as a method of generally organizing and defining educational phenomena. As Egan points out, his theory can be tested in its particulars and in general. He suggests that particular aspects of the theory, such as the relationship between grade and passage studied here, can be tested and from the results of these tests, decisions made on how to refine and evaluate the entire theory. It appears, however, that certain constraints must be placed on the methodology. In-depth testing of Egan's general theory seems to presuppose establishing a situation where school curriculum and materials are designed to Egan's criteria, implemented over the long term, and the performance of students following this curriculum compared with the performance of those being educated under a more "traditional" curriculum. As Egan (1979) points out, testing the general theory requires a long term commitment of time, money and resources.

With respect to the particulars of the theory, this research paper was the first known attempt to test aspects of it. The methodological approach taken and the results of

the study point to certain ways in which research methodology into Egan's theory could be improved.

It appears to be very difficult to assess the validity of even particulars of Egan's theory on the basis of a single test, because such an isolated instance is divorced from the educational history of the students and the materials that they are accustomed to using. In fact, it is difficult to assess whether the results that were seen, for example, in the grade 9 class were due to the materials presented to them in the study or to another external cause. It would seem more sensible to establish a testing programme that created at least a minimum curriculum; one that included active participation of the teacher, a series of lesson units and a set of tests directed towards particular aspects of the theory. Practical testing and refinement of Egan's theory must be approached on a long-term basis in a natural classroom environment.

Further Research

The materials used in this study were designed on the basis of Egan's (1979) research. For methodological purposes, the control passage was restructured in three different ways, each incorporating Egan's criteria for that stage. The use of the story form was limited to its broadest sense, that it have a beginning that sets up expectations, a middle that develops these expectations and

an end that resolves them. Egan's (Note 1) research, which was unavailable at the time of construction of the materials used in this study, suggests that there may be more dynamic ways to construct the materials. It is important to remember that for Egan, it is not information that may be an element of inert, but the structure through which the information is presented. Thus, for testing more than one stage, one suggestion is to construct new materials appropriate to each stage rather than modify existing materials. For example, the first step might be to decide what common idea units are desirable to communicate to the subjects. Following this, each passage would be individually designed using vocabulary, syntax and concepts to express these idea units, appropriate for each age level. Each story would then be constructed using this as a basis incorporating Egan's (1983) element of fantasy. The mythic story might be approached, for example from the point of view of a rural individual, perhaps a farm child. This type of testing might also be performed on a wider age group, thus reducing the risk of stage overlap. The test materials, such as short answer questions would be constructed using the vocabulary, syntax and concepts appropriate for each passage.

In terms of methodology, one other suggested approach to research on Egan's theory would be to test a single stage

over a longer period of time, i.e., longitudinal. Materials could be constructed for all levels in a variety of subjects.

With respect to the construction of materials, it is advisable to ensure that they in fact conform to the criteria set forth by Egan. To do so, one could either construct a single passage, and have it evaluated by several independent judges, or several individuals could simultaneously develop the materials, and their products be compared and assessed. In this way, more insight into how Egan's prescriptions should be implemented in the construction of materials would be gained, as well as ensuring that they are valid.

Reference Notes

1. Egan, K. Children's path from reality to fantasy.
Journal of Curriculum Studies, in press.
2. Schmid, R. F. Prior knowledge, context familiarity and the comprehension of natural prose. Unpublished doctoral dissertation, Arizona State University, 1977.

References

- Anderson, R.C. How to construct achievement tests to assess comprehension. Review of Educational Research, 1972, 42 (2), 145-170.
- Biehler, R.F. Psychology applied to teaching (3rd ed.). Boston: Houghton Mifflin Co., 1978.
- Boyle, D.G. A students guide of Piaget (1st ed.). New York: Pergamon, 1969.
- Bruner, J. The act of discovery. Harvard Educational Review, 1961, 31 (1), 21-32.
- Bruner, J. Toward a theory of instruction. Cambridge: Belknap Press of Harvard University Press, 1966.
- Bruner, J. The course of cognitive growth. In Endler, N. S., & Boulter, L. R., & Osser, H. (Eds). Contemporary issues in developmental psychology. 1968.
- Bruner, J., Goodnow, J.J., & Austin, G.A. A study of thinking. New York: Wiley, 1956.
- Egan, K. Educational Development. New York: Oxford University Press, 1979.
- Elkind, D. Children and adolescents: interpretive essays on Jean Piaget. New York: Oxford University Press, 1974.
- Elton, G.R. Quick solutions for fearful minds. The Times Educational Supplement, 1983, 14, 20.

Erikson, E.H. Childhood and society (2nd ed.). New York: W.W. Norton, 1963.

Erikson, E.H. Identity: youth and crisis. New York: W.W. Norton, 1968.

Gage, N.L., & Berliner, D.C. Educational psychology. Chicago: Rand McNally, 1975.

Grinder, R.E. Adolescence. New York: John Wiley and Sons, 1973.

Havighurst, R. Developmental tasks and education. New York: Longmans, Green, 1970.

Herstein, H. H., Hughes, L. J and Kirbyson, R. C. Challenge and survival: the history of Canada. Scarborough: Prentice Hall, 1970.

Hilgard, E.R. and Bower, G.H. Theories of learning (3rd ed.). Englewood Cliffs: Prentice-Hall, 1975.

Labinowicz. The Piaget primer, thinking, learning, teaching. California: Addison-Wesley, 1980.

Lefrancois, G. R. Psychology for teaching (3rd Ed). California: Wadsworth, 1979.

Mussen, P.H. and Conger, J.J. and Kagan, J. Child development and personality (3rd. ed.). Boston: Houghton Mifflin Co., 1978.

Piaget, J. Science of education and the psychology of the child. New York: Grossman, 1970.

Schubert, W.H. Educational development. Journal of

Curriculum Studies, 1983, 15, 199-205.

Stephens, J.M. The process of schooling: a psychological foundation. New York: Holt, Reinhart and Winston, 1967.

Tuddenham, R.D. Jean Piaget and the world of the child. American Psychologist, 1966, 21, 207-217.

APPENDICES

Appendix A
Instructional Materials

1/2 = Idea unit (see Results)

LOYALIST MIGRATION

(Control Passage)

/During the Revolutionary War not all the people of the Thirteen Colonies rose in rebellion against Great Britain./ There were loyal British subjects who wished to maintain the British connection/ and to live in a United Empire./ Many such Loyalists, voluntarily or by force of circumstances, left the United States./ Some came to live in the British North American colonies./ This large influx of Loyalists < was bound to affect the economic, political and social life/ in Nova Scotia and Quebec./ Beyond the immediate problems created by the coming of the Loyalists,/ their presence in large numbers produced significant constitutional changes/ and altered the very character of British North America./

Sam Adams,/ a prominent leader of the American Revolution,/ estimated that only one third of the people in the Thirteen Colonies actively supported the revolutionary cause,/ one third remained neutral/ and the remainder actively supported Great Britain./ That is, many British Americans, from many motives, chose to remain loyal to Britain./ It is safe to state that most of the Loyalists shared a deep allegiance to the British monarchy./ Loyalty to the Crown was a deep rooted tradition,/ not confined to any particular social class or occupation,/ and among the Loyalists were professional men, office holders, merchants

with British connections and farmers, and artisans of modest means./ Many of the Loyalists either aided the British forces/ or fought with Loyalist units alongside the British regular troops./

Not all who remained loyal left the United States;/ many assessed the new situation and realistically faced the new conditions./ In some places, Loyalists or suspected Loyalists were severely mistreated./ Wherever Loyalist sympathy ran high,/ as in New York and Pennsylvania,/ the reaction against Loyalists was particularly bitter./ But in all colonies, many people were classified Loyalist if only because of their sentimental feeling for Britain,/ lived in an unfriendly atmosphere./

During the revolution, gross injustices were perpetrated against Loyalists in the name of the noble revolutionary ideal./ The mere denunciation of the Loyalists as traitors to the revolution brought them untold suffering./ Vigilante committees, acting as defenders of the revolution, took the law into their own hands./ Suspected Loyalists suffered indignities, persecution, loss of livelihood, and even personal harm./ Persons in office, unsympathetic to the revolution, were subjected to political persecution/ and were ousted from their positions./ Those who fought on the side of Britain or who were suspected of aiding Britain often had their property confiscated./

Unruly mobs pillaged and looted the homes of the Loyalists, who had no protection from the law. Many were condemned without judge or jury; some were imprisoned or banished. In areas where the forces of revolution suffered setbacks, feelings ran high and mobs vented their anger against suspected British sympathisers. The feeling of hostility and resentment against the loyalists did not abate with the success of the revolution. Victory only increased the hatred against those who had failed to display enthusiasm for the revolutionary cause. In this antagonistic environment, Loyalists found life unbearable and approximately 50,000 left the United States and took refuge within the Empire. Many went to England, some found their way to Bermuda, others emigrated to Nova Scotia. The conquest of Canada by Britain had provided a new homeland for the colonists who no longer felt at home in the Thirteen Colonies.

At the end of the revolutionary war, New York became the assembling point for Loyalists from the Atlantic coastal colonies. At New York city, Carleton made preparations for the evacuation of the thousands who wished to leave the United States. The Atlantic colonists, in the past, had found a kinship with the British colony of Nova Scotia. Now, in this time of need, these refugees were transported in British ships to Nova Scotia where land was plentiful.

and the social climate was to their liking. Among the arrivals were many Acadians, who returned to their former homeland, and several thousand Negroes. By the end of 1783, more than 30,000 had reached Nova Scotia and swamped the Nova Scotia population of 17,000.

Of those who came, about 600 went to Prince Edward Island, 3,000 to Cape Breton Island and almost 10,000 disbanded members of the regiments settled along the fertile St. John Valley, far removed from the seat of government at Halifax. On the southeastern coast near Port Roseway, renamed Shelburne, 10,000 Loyalists set to work to build a port city that would rival Halifax in size and importance.

The British government undertook to settle and assist these refugees as compensation for their Loyalty to the Crown. The government of Nova Scotia was instructed to grant 100 acres of land to the head of a family, and fifty acres for each member. Former members of the British forces were given larger grants of up to one thousand acres for a field officer. The newcomers were also provided with tools and provisions to tide them over until they gathered in their next harvest.

This large and sudden influx of immigrants was bound to cause difficulties and dislocations. Surveying the land grants was an enormous task, and the shortage of surveyors caused delays in the issuing of land titles. Most of the

Loyalists came from the large towns and cities, and these city dwellers, unaccustomed to the hardships of pioneer life in frontier Nova Scotia, found it extremely difficult to adapt to the new environment. Poor crops and shortages of supplies disheartened many. The Loyalist settlers in Shelburne met financial disaster. Many of them had invested their life savings in expectation of great developments. But Shelburne was poorly located. It was not a year round port and the soil around it was very poor for farming. Shelburne remained only a small fishing village and the newcomers lost their meagre savings. Some Loyalists, unable to face the heartbreaking challenges of the frontier, drifted back to the United States and some who were financially able went to England.

Other difficulties soon became apparent. The Loyalists resented, to some extent, the older established residents of Nova Scotia who had not flocked to the side of Britain during the Revolutionary War. Friction soon developed between the farm element and the urban Loyalists, between the civilians and former Loyalist soldiers and between former Loyalist officers and enlisted men. Some of the Loyalists made pretentious demands and exaggerated claims - they felt they were entitled to many privileges as a reward for their loyalty. All in all, it was a difficult task to adapt to the new and trying conditions; the resulting

frustrations bred rivalry, resentment and ill feeling. Nevertheless, most of the Loyalists remained, settled, built a new life for themselves and their children, and contributed greatly to the development of the Maritimes.

No less discouraging than the experiences in Nova Scotia were the trials of the Loyalists who settled in Prince Edward Island. After they had settled and cultivated the land, they discovered that their titles to the land were not valid - they were squatters on land owned by absentee landlords. Many of the Loyalists left Prince Edward Island and those who remained did so as tenant farmers. Not until 1873, when Prince Edward Island joined Confederation, was the whole question of absentee landlords cleared up.

The Loyalists who came to Quebec were mostly from New York, Pennsylvania and western New England. Unlike those who went to the Maritimes, most of the Loyalists who came to Quebec were backwoods farmers, better suited to the hardships of pioneer life. Even during the war (especially after the defeat of the British forces at Saratoga) Loyalist refugees began drifting into Montreal. At the end of the war, following the well-travelled Lake Champlain-Richelieu River highway, about 10,000 Loyalists came to Quebec and settled in the the untouched stretches of this British colony. Many had been members of Loyalist militia units -

such as Butler's Rangers/ and Johnson's Rangers/ - which had fought alongside the British against the Americans./ There were also many disbanded German, Swiss and Dutch mercenaries who had served the British Army;/ and some Indian Loyalists, notably those led by the brilliant Chief Brant of the Six Nation Confederacy./ There were also a few Quakers and Mennonites, who because of their deep religious convictions,/ had refused to bear arms in the cause of the revolution./ A number came because land grants were given to all those who sought haven in this British colony;/ free land, rather than Loyalism attracted these "land loyalists"./

Understandably, the Loyalists had no desire to live under the French seigneurial system,/ with its alien language, customs, laws and religion./ Therefore the Loyalists land grants tended to skirt the settled areas of Quebec./ From the principal assembly point at Sorel (Fort William Henry), some Loyalists took up grants along the sparsely populated south shore of the St. Lawrence./ These settlements, later to be known as the Eastern Townships, laid the foundation for the English-speaking tradition in the present Province of Quebec./ The majority of Loyalists, however, moved west of the settled areas of Quebec and to the upper St. Lawrence and the Niagara Peninsula/ where, together with those who came directly from the American colonies, they laid the foundation for a new

English-speaking colony./

Four areas were discernable in the pattern of Loyalist settlement in Quebec./ These were the land on either side of the Grand River; the Upper St. Lawrence between Montreal and Lake Ontario, the Niagara Peninsula and the land surrounding the Bay of Quinte./ As much as possible, Governor Haldimand attempted to keep the members of the same military units together./ Thus, Brant's Indian followers were settled on a reserve along the Grand River;/ the King's Royal Regiment of New York located along the Upper St. Lawrence;/ Butler's Rangers took up land along the Niagara River;/ and the Glengarry Highlanders settled around the Bay of Quinte./

Land grants and assistance given to the Loyalists in Quebec were similar to those given in Nova Scotia./ The difficulties of the Quebec Loyalists were also similar to those of the Nova Scotia Loyalists and no less trying or rigorous./ There were the usual delays in obtaining land grants./ Clearing the virgin forests presented difficulties on the western frontier similar to those encountered in Nova Scotia./ Furthermore, in 1786, when British aid ceased, the precarious conditions of the loyalist settlements worsened./ In 1788, "The Hungry Year", the settlers were faced with crop failures, shortage of food and a severe winter./

But in spite of the hardships, the Loyalists in Quebec

generally adjusted much better than those in Nova Scotia./ The rigors of frontier life were not new to the farmers who had come to Quebec from the American colonies./ These hewers of the forest and tillers of the soil laid a British foundation in a colony which, twenty years earlier, Carleton had asserted was to be French "to the end of time"./

The loyalist migration represented the first substantial increase in the population of Canada,/ since the efforts of Colbert had enticed some Frenchmen to settle in the Canadian wilderness./ However, the Loyalist influx was not to be the last large migration to Canada./ On two later occasions - the Great Migration of 1815-1850/ and the Laurier Sifton migration of 1897-1914 - Canada was again to experience the dislocation and exhilaration resulting from large scale immigration./ Each of these four migrations altered the character of Canada./ However, the most profound economic, social and political changes were brought by the coming of the Loyalists./ It is difficult to understate the effects of Loyalist migration on British North America./ The addition of 50,000 Loyalists to the population of British North America injected a new vitality into the economic life of the colonies,/ extending the frontier of settlement westward,/ endowed the colonies with long-lasting traditions of loyalty to the British Crown/ and initiated far-reaching political and constitutional

changes./

Generally, the Loyalists had enjoyed a vigorous economic existence in the Thirteen Colonies./ Their coming gave British North America a semblance of a middle class./ Doctor, lawyer, politician and shop keeper, farmer and pioneer, tradesman and business man had come and immediately begun practising his profession, trade or skill./ With the growth of towns, public works were undertaken, schools built, more newspapers founded./ Small shops tendered to the needs of townspeople,/ while giant enterprises in fishing, lumbering and shipbuilding catered to the demands of the Empire./ A brisk carrying trade with the West Indies also developed./ At last, the Canadian economy was becoming diversified./ Diversifications, however, did not mean the end of the fur trade./ Furs and the revenue derived from them continued to a prime factor in the economic life of British North America./ Fur traders continued their frantic search for new fur areas to meet the challenge of American competition./

While the fur frontier was moving systematically westward across the continent,/ the farm frontier was also moving, though at a slower pace,/ and reached only as far as Lake Erie./ With the coming of the Loyalists, new farms sprang into existence in hitherto untilled fertile land of the Upper St. Lawrence and the Niagara Peninsula./ From the

Maritimes to the Great Lakes towns such as Shelburne, Saint John, Niagara, Kingston and York dotted the British North America map./

The Loyalists had a profound effect on the economic life and the movement of the frontier./ But they had no less effect on the attitudes and character of British North America./ Many of the Loyalists had come because they cherished the British connection;/ the Empire, the King, the aristocracy, the rule of law, parliament and the rights of Englishmen were sacred to them./ The Loyalists could not conceive of an existence outside the British Empire, divorced from the heritage they treasured./ They despised the radical republicanism of the United States whose adherents had dared rise in rebellion against King and Parliament./ To the Loyalists, life in British North America within the confines of the Empire was preferable to the untried and risky path of republicanism with its rule "by the rabble." /

Not only had the Loyalists brought with them useful trades and professions; they had also transplanted their ideals and attitudes to British North America./ Sheer weight of numbers allowed the loyalists to impress upon the somewhat unenthusiastic British North American colonies the value of British institutions and the necessity of the British connection./ As a result of the coming of the

Loyalists, the organization and political institutions of British North America, particularly in Quebec, underwent fundamental changes./ The presence of large numbers of Loyalists on the North shore of the Bay of Fundy - far removed from the capital in Halifax - resulted in the creation of the new colony of New Brunswick./ Like Nova Scotia and Prince Edward Island/ (which had been established as a separate colony in 1796),/ New Brunswick was to have a representative government - that is, an elected assembly./ But the creation of a new province in the Maritimes was a relatively simple solution to a relatively simple problem./

The problem of the loyalists in Quebec could not be resolved so easily./ In Quebec, the very presence of 10,000 English speaking, largely Protestant Loyalists rendered the Quebec Act of 1774 obsolete./ The Quebec Act had been formulated to govern a French, Roman Catholic population and protect and guarantee a culture that was foreign to the Loyalists./ It was unrealistic to expect that British subjects,/ who had sacrificed their homes and possessions in order to perpetuate their British heritage,/ would live under French customs and laws./ It was also unjust to deny (as the Quebec Act had done), an elected assembly to the Quebec Loyalists while those in the Maritimes enjoyed representative government./ The whole problem of Quebec - an English-speaking minority in a British colony governed by

a constitution geared to a French speaking majority -
occupied the attentions of many British and colonial
statesmen. / The Constitution Act of 1791 was devised as a
solution. /

Material Design of Mythic Passage

Principles for Organizing Instructional Materials

Application of Principles in Mythic Passage

1. Present materials in
story form.

- beginning to set expectations
- middle to elaborate on expectations
- end to resolve expectations

- first paragraph.
- second paragraph to second last idea unit.
- last two idea units.

2. Use binary oppositions.

- love and hate for Crown, suffer with principles rather than be happy without them etc.

3. Use concepts with
absolute meaning

- love, hate, loyalty, treason, suffering, starvation, persecution etc.

4. Avoid concepts of
otherness and sense
of autonomous world.

- lack of chronology, lack of excessive use of names

LOYALIST MIGRATION

(Mythic Passage)

/It was love of the Crown that caused all the trouble and started the Loyalist Migration./ This migration was completely unlike the other three major migrations that helped create Canada./ The first of these, organized by Colbert, attracted French settlers to the New world with promises of untold riches./ The Great Migration and the Laurier-Sifton migrations brought willing people to expand the country./ But the Loyalists came because they had no choice./ They either had to give up their devotion to the Crown/ or move north out of the Thirteen Colonies./

The Loyalists had come to the Colonies to establish the Crown in the new world./ They wished to live by rule of Law, with a parliament, an aristocracy and a King./ The Loyalists were of the middle class: farmers, fishermen, doctors, lawyers, ship builders and merchants./ They made up almost one third of the people of the Thirteen Colonies./ And they refused to forsake their King./ For them, it was far better to suffer what ever hardships might come their way than to forsake the Crown./ When the Revolutionary War broke out, some Loyalists actively fought with the British against the revolutionaries./ Others, like Butler's Rangers and Johnson's Rangers formed Loyalist units and fought for the love of the Crown./ Many Loyalists did no active fighting

but simply sympathized with the British./ The Crown also hired German, Swiss and Dutch mercenaries./ Indians from the Six Nations Confederacy also fought for the Crown./ A few, the Quakers and Mennonites, refused to bear arms against anyone./ Thus, the revolutionaries held some bitterness towards them./ As a result, many felt obliged to move north with the Loyalists./ But most of the Loyalists believed in the Crown and all things British./ And they lost the war./

To the revolutionaries, the Loyalists were traitors./ Traitors must pay the price in both victory and defeat./ Suspected Loyalists suffered persecution./ Some lost their jobs,/ others lost everything./ Loyalists who held office in the Colonies were subject to political persecution/ and were removed from their positions./ Those who fought for the Crown had their property confiscated./ Mobs of angry revolutionaries looted and pillaged the Loyalists' homes./ There was no protection from the law./ Loyalists were condemned by vigilante committees/ and some were imprisoned or banished./ Some were tanned and feathered and carried about as spectacles, to the delight of the revolutionaries./ In places where the revolutionary cause suffered setbacks, anger was directed at the Loyalists./ Even in final victory the hatred did not cease./ Those who supported the Crown or even sympathized with the British found themselves unwelcome

in the new Republic./ The Loyalists had to move, voluntarily or involuntarily./ They no longer had homes, jobs or a government to whom they could be loyal./ They thought the new revolutionary government to be "rule by rabble"./ Whole families had to take what they could carry and flee north./ Some Loyalists bowed under the pressure and turned their backs on the Crown./ Most became refugees./

And so the Loyalists migrated north into British North America./ They left with what ever they could carry./ Although in the Thirteen Colonies they had been solid citizens of the middle class, they migrated with practically nothing./ Those who lived near the sea left by the sea, to new lands by the sea./ As maritime people, they felt an affinity to the maritime provinces to the north./ They gathered in New York and left in ships of the Crown to Nova Scotia and Prince Edward Island./ Among these were some Acadians, who had once moved to the Colonies and were now returning home./ Others were black, eager to taste freedom under the rule of the Crown and the law./

In return for their loyalty, the Crown assisted these Loyalists in resettlement./ They were given grants of land, tools and provisions enough to keep them until the next harvest./ Each recieved in proportion to his service./ Those who fought actively for the Crown were given the

most./ But all received a share./ Among those who fought, officers received the most./ Heads of families were deeded land for themselves and for each member of their family./

But all was not easy for these Loyalists./ Many more Loyalists went to Nova Scotia than there were Nova Scotians./ The land they were given had to be surveyed, and there were not enough surveyors./ Thus, the Loyalists had to wait a long time before claiming their land./ The land was poor for farming in some areas of Nova Scotia./ The Loyalists were city folk, unaccustomed to the struggle of pioneering./ Some Loyalists attempted to build a new city called Shelburne./ It was to be a port of great importance./ But the location was bad, the surrounding land poor for farming, and the city failed./ Those who had invested what little they had in Shelburne faced a great loss./ Some even lost their loyalty and went back to the Colonies./ Others sailed for Britain./

Friction developed between those who fought for the Crown and those who didn't, between farmers and city dwellers, between Loyalist officers and their soldiers./ Some felt that their loyalty deserved rich rewards, beyond the ability or inclination of the Crown to pay./

A small number of Loyalists went to Prince Edward Island./ These people did not fare any better than the Loyalists in Nova Scotia./ In fact, many of the Prince

Edward Island Loyalists found that the land they were granted was already owned by others, called absentee landlords. / In some cases, families were thrown off their land, / without compensation, after nine or ten years of settlement. / Many left Prince Edward Island and most of those who stayed did so as tenant farmers. / It took many years to clean up the absentee landlord problem. /

Some of the Loyalists in Nova Scotia settled on the north shore of the bay of Fundy. / As their numbers increased, they did not wish to be ruled by officials in Halifax. / As a result, they formed a new province, called New Brunswick. / Like Nova Scotia and Prince Edward Island, New Brunswick had an elected assembly or parliament. /

The Loyalists from the inland Colonies, such as New York, Pennsylvania and the western New England colonies left over land, / migrating north up the Lake Champlain-Richelieu River Highway / into the Quebec portion of British North America. / Many of these people were farmers. / Because of this, it was a little easier for them to settle into the new country. / Nevertheless, their migration was not without difficulty. / Quebec was Catholic, French speaking and culturally foreign to the Loyalists. / Quebec was governed under the Quebec Act, a document designed to protect the interests of French speaking Roman Catholics. / This situation made it difficult for the Loyalists who were

mainly English speaking Protestants. Under this Act the Loyalists could not form a representative assembly, like the Loyalists in the other settlements.

The Loyalists who came to Quebec were a mixed lot; some Loyalist fighting units, members of the Six Nation Confederacy, the mercenaries, and the religious. Some, called "land loyalists", came just for the land that was being granted.

Once in Quebec, these Loyalists spread out into four main areas, away from the French speaking majority. One group colonized the land south of the St. Lawrence River, called the Eastern Townships. The majority, however, moved further west; Brant's Indian followers along the Grand River, the Glengarry Highlanders around the Bay of Quinte, the King's Royal Regiment on the upper St. Lawrence and Butler's Rangers around Niagara. Such was the loyalty of these people that groups from the same fighting units tried to stay together and settle as a group. Many of these people had been farmers before the war. For this reason, they had less difficulty adjusting to pioneer life in Canada than the Loyalists in the Maritimes.

But the settlers in Quebec had their share of trouble. Only a few years after they had arrived, the British withdrew their support. Not long after this the Quebec Loyalists suffered through the "Hungry Year", a harsh

winter, late spring, crop failures and shortage of food./ Yet, despite the struggle at the beginning, the Loyalists soon enjoyed a vigorous economic existence./ Each practised his trade or skill./ Soon schools were built and newspapers were opened. The merchants opened shops to serve the needs of their communities./ Some began shipping and transportation businesses, which grew to be very large./ They began a carrying trade with the West Indies./ In this way they greatly diversified the economy of the colonies./ The Loyalists became a major force in colonizing British North America./

The Loyalist migration went hand in hand with the expansion of the fur trade./ Although not fur traders themselves, they expanded west in the wake of the fur traders./ Revenues created by the fur trade fired the economy./ Thus, the Loyalists had a profound effect on economic life and the movement of the frontier./ New towns sprang up:/ Shelburne, St. John; Kingston; York; Niagara./

But it was the loyalty of the Loyalists that had the greatest effect./ Because of their background they brought to British North America and undying affection for all things British, including the King, the aristocracy, the rule of law and parliament./ The Loyalists could not conceive of an existence outside the British Empire./ Because of their large numbers, the Loyalists were able to

impress their values upon the other settlers of British
North America, / and create a true colony of the Crown. /

Material Design of Romantic Passage

Principles for Organizing Instructional Materials

Application of Principles in Romantic Passage

- | | |
|---|---|
| 1. Present materials in story form. | |
| - beginning which sets up expectation | - first paragraph |
| - middle which elaborates on expectation | - second paragraph to second last paragraph |
| - ending which resolves expectation | - last two paragraphs |
| 2. Explore reality of world in detail. | - written in great detail |
| | - quotations from original sources |
| 3. Incorporate concepts of otherness. | - references to dates, places, and people. |
| 4. Connect different elements of story with transcendent human qualities. | - paragraphs 1, 3, 5, 9, 11, 20, 21, 22, 24 |
| 5. Place opposing elements in dramatic conflict. | - entire passage has this characteristics built into it |

LOYALIST MIGRATION

(Romantic Passage)

/A good deal of history is concerned with the forced migration of groups of people because of their religious or political beliefs./ The Loyalists were one such group, who due to their unyielding devotion to the Crown,/ and refusal to fight with American rebels against the King,/ were forced to pick up and move to new lands./ This is the story of these Loyalists.

The revolutionary war was begun,/ like all revolutions,/ by a small group of individuals./ Two thirds of the colonists in the Thirteen Colonies were either neutral or loyal to Britain and British ways./

The Loyalists were a mixed lot, making up about one third of the Colonists:/ farmers, tradesmen, merchants - the middle class./ They were unhappy people, unhappy with revolutionary developments around them./ They were plain, bewildered people who found themselves on the losing side of a war./ Yet they remained true to their King, faithful to their country and attached to the rule of law and parliament./ They wanted nothing to do with the revolutionaries,/ whose government they considered "rule by the rabble"./

Many Loyalists actively fought on the side of Britain,/ either with British regulars or in Loyalist units./ The

British also used German, Dutch and Swiss mercenaries who were also forced to leave during the Migration./ Other Loyalists were simply British sympathizers who, for one reason or another, made their views known, and paid the price of their loyalty./

The Loyalists were subjected to many kinds of persecution both during and after the war./ Those stigmatized as Loyalists were exposed to all kinds of violence and repression./ Under the guise of patriotism, mobs pillaged and looted Loyalist homes./ They even resorted to tarring and feathering Loyalists and carrying them about for public display./ Nor were the Loyalists protected by the law./ The new state authorities, under the lead of Congress, demanded allegiance of all subjects./ Those who had fought for the British or held sympathetic views to the Crown were exposed to severe penalties/ including, confiscation of property, imprisonment, banishment or even death./ Many were condemned without judge or jury./ In those areas where the revolutionaries suffered losses in battle, feelings ran particularly high against the Loyalists./ These feelings of hostility did not cease even after final victory./ Victory only served to increase the rebel's hatred of those who did not support the revolutionary cause./

It was in this atmosphere that approximately 50,000

Loyalists prepared to leave their homes/ and migrate north into British North America./ The Loyalist migration was the second of four large scale migrations that brought thousands of immigrants to Canada./ The first of these, organized by Colbert, was an attempt to bring French settlers to the New World./ The other two major migrations were the Great Migration of 1815-1850/ and the Laurier-Sifton Migration 1897-1914./ But the Loyalist migration was forced - they had no choice./ Some went to England and Bermuda./ Some abandoned their Loyalist principles and stayed in the United States./ But the conquest of Canada by Britain provided a new home for many refugees of the Thirteen Colonies./

Those Loyalists that lived in colonies near the sea, gathered in New York for evacuation to the Maritimes./ Sir Guy Carleton, Governor of Quebec, made the arrangements./ The Atlantic Colonists had many things in common with the colonists of Nova Scotia, not the least of which was a heritage by the sea./ The refugees were transported at British Government expense to Nova Scotia,/ and by the end of 1783, more than 30,000 swamped the Nova Scotia population of 17,000./ Among these were several thousand Negroes./ Also included were many Acadians, who were returning to lands they had once migrated south from./ Of those who arrived in Nova Scotia, approximately 600 went to Prince Edward Island/ and 3,000 to Cape Breton Island./ 10,000

disbanded members of Loyalist regiments settled the fertile St. John's River Valley./ Another 10,000 left Halifax for Port Roseway, renamed Shelburne,/ with the intention of turning it into a major port to compete with Halifax./

The British government undertook to settle and support these refugees as compensation for their Loyalty./ The government of Nova Scotia was ordered to grant land to the refugees./

INDUCEMENTS TO LOYALISTS TO SETTLE IN CAPE BRETON BY HIS EXCELLENCY, JOSEPH FREDRICK WALLET DES BARRES ESQR. Governor of the Island of Cape Breton and Dependencies, Commanding His Majesties Forces therein etc. etc....

A PROCLAMATION

... I have thought fit to inform them (Loyalists); that a large Body of Land... on the Eastern shore of Sydney Harbour... is laid out upon a Plan,/ calculated to become an opulent Fishing Town,/ surrounded by fine Farming Country,/ for the Reception and accomodation of Families who intend to carry on Navigation, Trade, Fishing and Farming,/ and particularly adapted for establishing a Whale Fishery on the largest Scale./ ...every Settler will have the Choice of as much land, as he can undertake to cultivate, in an Eligible situation either abutting upon some Navigable Water,/

or upon some principal great Road, which are opening to form an easy intercourse of Commerce with all parts of the Island./

Provisions will be allowed at the same Rate, and for the same Time as has been allowed in Nova Scotia/

...they will also have a Supply of Implements and Material for Building./

...Every reasonable assistance to those who may stand in need thereof for their removal will be afforded./

...I have also set apart the Harbour and District around Louisbourg,/ as appearing to me peculiarly advantageous for the Reception and accomodation of Families who intend to follow the Fishery and principally the Whaling business./

Dated at Sidney the 1st of September 1785./

The large and sudden arrival of Loyalists in Nova Scotia was bound to cause some problems./ Land grants were held up by a lack of surveyors./ The Loyalists, who were mainly city folk,/ had little experience in pioneering and found the transition very hard./ Those who invested in Shelburne lost all./ Shelburne was poorly located and the farmland around it was bad./

The Loyalists had other problems as well./ Many resented the fact the British North American colonists did not actively fight with them against the Americans./ Many

thought they were owed excessive priviledges./ Officers resented men and vice versa,/ civilians turned against the military./

Governor Parr's Dispatch on Nova Scotia Loyalists, 1784/
 ...with about 30,000 Souls added to this Province, all of which except a few lately arrived, have got under tolerable Shelter of the Winter/ and are accomodated as well as the nature of their situation would admit,/ yet notwithstanding that I have used every exertion, have done every thing in my power for them, some few discontented Rascals, at the most distant Settlements, begin to be clamourous and seditious, expecting more than can possibly be done in so short a time.../and I am told have wrote complaints home against me, without having made them known here.../Though they plagued me with complaints and quarrels among themselves etc.,/ I shall continue to render them every good office in my power/ and may venture to assert with great confidence, that a very great Majority indeed, approve of my Conduct, but that there are some not to be pleased or satisfied./

The problem of land grants in Prince Edward Island was even more serious, as shown in this diary entry on the troubles of one Jo Laird with an absentee landlord:/

...Laird has been formerly settled on another lot, but

after 9 years, it was discovered that by a mistake of the Surveyor, he was set down on a lot that was not his own, and he was obliged to remove without receiving any compensation for his improvements.../

This problem of absentee landlords was common in Prince Edward Island/ and was not settled until 1973, when Prince Edward Island joined confederation./

The Loyalists who came to Quebec were mostly from New York, Pennsylvania and Western New England./ Most of these were members of Loyalist regiments and backwoods farmers./ As a result, they had a better time of it than those in the Maritime Provinces./ About 10,000 drifted into Montreal during and after the War, up the well travelled Lake Champlain-Richelieu River highway./ Among these Loyalists were some Indians, under the command of Chief Brant of the Six Nation Confederacy./ These people were granted land on a reserve along the Grand River./ Butler's Rangers took up land on the Niagara River,/ the King's Royal Regiment of New York on the upper St. Lawrence/ and the Glengarry Highlanders around the Bay of Quinte./

These Loyalists were accompanied by others./ Some were Quakers and Mennonites who refused to bear arms./ Others emmigrated for the free land grants, thus earning the name "land loyalists"./

The Loyalists who emmigrated to Quebec did so into a

land predominantly Catholic and French speaking, / with a government to which they could not relate, / and in which they could not participate. / This was to become a major source of friction. / Most of the Loyalists moved away from settled areas of Quebec to more remote regions. / Some moved to the south shore of the St. Lawrence, and colonized what became known as the Eastern Townships. / Here they established an English presence in Quebec, that remains to this day. / Their presence rendered the Quebec Act of 1774 obsolete. / This act was designed to govern a largely French speaking, Roman Catholic colony. / The Loyalists, mostly English speaking and Protestant, agitated for reform, / resulting in the Constitution Act of Canada in 1791. /

Times were not easy for the Loyalists in Quebec. / Despite the fact they were better prepared for pioneer life than other Loyalists, British support ended in 1786, / and in 1788 they faced severe crop shortages and cruel winter. / Here is a report.

...many are the touching stories... of this sad first page in the history of Upper Canada when from Lower Canada to the outskirts of the settlement was heard the cry for bread! bread! bread! /

The year of the famine is spoken of sometimes as the "scarce", / sometimes as the "hungry year" or the "hard summer". / The extreme distress seems to have commenced in

the year 1787./ With some, it lasted a part of the year, with others upwards of a year./ The height of the distress was during the spring and early summer of 1788./

... one individual has left the record that she used to allay the pangs of hunger by eating a little salt./ But the majority of settlers had no salt, and game and fish, when it could be caught was eaten without this condiment/...often when fish or game was caught it was forthwith roasted without waiting to go home to have it dressed./ As spring advanced, and the buds on the trees began to swell, they were gathered and eaten./ Roots were dugged out of the ground;/ the bark of certain trees were stripped off and consumed as food./ One family lived a fortnight on beech leaves./ Everything that was supposed to be capable of alleviating the pangs of hunger, whether it yield nutriment or not, was unhesitatingly used;/ and...some were killed by eating poisonous roots./ Beef bones were, in one neighbourhood not only boiled again and again,/ but actually carried from house to house, to give a little taste to boiled bran, until there remained no taste in the boiling water./

The Loyalists gradually overcame all these setbacks and came to make an incalculable contribution to the development of Canada./ They had enjoyed a vigorous economic existence

in the Thirteen Colonies. / Their coming to British North America gave these colonies a semblance of a middle class. / Doctors, lawyers, tradesmen, fishermen and farmers- all began to practise their trades. With the growth of towns came schools and newspapers. / They opened shops in the towns / and built some giant industries in fishing and lumber. / They began a carrying trade to the West Indies. / In short they greatly diversified the Canadian economy. / Their coming also had impact on the fur trade. / Although not trappers, they provided new markets for fur traders, who ranged farther and farther west and north to find furs, and meet the competition from the Americans. / The Loyalists filled in the land explored by the fur traders, / establishing farms in the Niagara area and west to Lake Erie. / New towns dotted the map from the Maritimes west, including: Shelburne, St. John, Kingston, Niagara and York. /

The impact of the Loyalists was felt culturally and politically, as well economically. / They firmly tied Canada to the British Empire, / and instilled the colonies with the British traditions of the rule of Law and parliament. / Their sheer weight of numbers allowed them to impose their ideals on the British North American colonies, / resulting in vast changes in political and social organizations. / The presence of large numbers of Loyalists around the Bay of Fundy led to the creation of a new province, New Brunswick. /

Loyalists who settled at the St. John River came into conflict with Governor Parr. / They wanted additional representation in the Nova Scotia Assembly. / Soon they demanded separation from Nova Scotia. /

The Loyalists then began to agitate for a division of the province - a policy which was strongly opposed by the Governor. / Parr went as far as to remove some of the Loyalists to the other side of the Bay of Fundy, / in the hope that that would settle the agitation; but it openly increased it, / and the Loyalists, who had many warm and influential friends at court, / urged a division so earnestly that the Ministry yielded to their wishes, / and the Province of New Brunswick was created in 1784, / so called out of compliment to the reigning family of England.

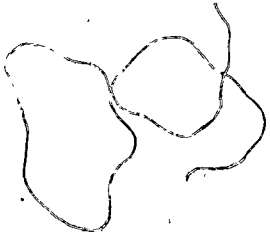
Thus, it was that in every possible way the Loyalists turned their defeat in the Thirteen colonies into a victory in Canada. /

Material Design of Philosophic Passage

Principles for Organizing Instructional Materials

Application of Principles in Philosophic Passage

- | | |
|--|--|
| <p>1. Introduce unit clarifying general form of context.</p> <p>2. Encourage:</p> <ul style="list-style-type: none"> - flexibility of thinking and commitment to general scheme - enquiry into support for general scheme <p>3. Introduce anomalies.</p> | <ul style="list-style-type: none"> - first paragraph - style of passage written to present socio/political scheme and encourage reflection - idea that Loyalists were inflexible and intolerant - idea of revolutionary war epitomizing ideological fanaticism, intolerance and willingness to kill for political purposes |
|--|--|



LOYALIST MIGRATION
(Philosophic Passage)

/The Loyalist migration from the Thirteen Colonies during and after the Revolutionary War had vast political social and economic consequences for British North America./ The Loyalist movement began as an emotional and political commitment to the British Crown and British institutions,/ on the part of approximately one third of the population of the Colonies./ The movement resulted in the transformation in the very character of British North America./

The Loyalist migration was one of four major migrations that created Canada./ The first of these was inspired by Colbert./ The migrants were French, drawn to settle the wilderness of what was then New France./ The Loyalist migration was the second./ On two later occasions - the Great Migration of 1815-1850/ and the Laurier-Sifton migration of 1897-1914 - Canada experienced the dislocations and changes resulting from large scale immigration./ What distinguishes the Loyalist migration from the others is the fact, that it resulted as a consequence of political ideas and the concept of loyalty./

The Revolutionary War had all the standard characteristics of political rebellions throughout history,/ including ideological fanaticism, intolerance of opponents and a willingness to kill to bring a new political

order into being./ The Loyalist movement, on the other hand, had all the earmarks of reactionary movements,/ a passionate dedication to the established order,/ a willingness to sacrifice everything to maintain the status quo,/ and a tendency to look down on the revolutionary movement as rabble creating "government by the rabble"./

The core of the Loyalist movement consisted of British subjects who wished to maintain their British connections and live in the Empire./ At the outbreak of hostilities between Britain and the Colonies, these people were forced to make a personal commitment to one side or the other./ The consequences of this decision deeply affected their lives./ To side with the Colonies involved giving up longstanding traditions,/ as well as the political, social and economic order that had created the British Empire./ On the other hand, to side with the Crown, resulted, ironically enough, in the loss of life, liberty and the pursuit of happiness - the very goals of the Revolutionary War./ Some Loyalists assessed the new order and realistically faced the new situation./ However, many fled or were forced to leave,/ very often carrying only a few possessions and the weight of the their loyalty./

Some Loyalists actively fought with the British against the Colonies in defence of their ideals./ Others formed Loyalist fighting units and fought alongside British

regulars./ But to be Loyalist was a stigma, punishable by ostracism, persecution and injustice./ Many people were classified Loyalist simply for sentimental feelings toward Britain and the Crown./

The cost of maintaining commitment to an ideal can be very high./ In some places, Loyalists were severely mistreated./ In New York and Pennsylvania the reaction against Loyalists was particularly high./ This injustice took many forms, including personal and political persecution./ Revolutionary vigilante committees took the law into their own hands./ Suspected Loyalists were stripped of their livelihood and possessions./ Those who actively fought against the Colonies had their property confiscated./ Neighbours were encouraged to inform on neighbours,/ and in some cases mobs of angry people vented their anger on the Loyalists./ Loyalists were condemned, imprisoned or banished without trial by judge or jury./ This lawlessness was particularly frightening for Loyalists, whose very belief was based on rule by law./ And it is a comment of the state of mind of the revolutionaries that even in victory they could not tolerate Loyalist sympathies./

As a result of these conditions almost 50,000 Loyalists left the United States/ and sought refuge within the British Empire. Some went to England,/ others to Bermuda./ But

most went north into the British North American provinces./
The conquest of Canada by Britain provided a new home for
British Loyalists./

Not all the people who migrated were Loyalists./ Some
were German, Swiss and Dutch mercenaries, hired fighters
whose loyalty was measured in currency./ Others, like some
Quakers and Mennonites, refused to bear arms in defense of
the revolution/ or, for that matter, the King./ Some
migrated because land grants were being given to all those
who sought refuge in the British colonies, their loyalty
being to free land./ Still others were Negroes with a
loyalty to freedom from slavery./ Loyalty takes many forms
indeed./

Loyalists from the American coastal Colonies gathered
in New York for evacuation./ The natural destination for
the Atlantic colonists was Nova Scotia,/ a British colony,
with traditions and customs attractive to the Loyalists./
In fact, some of the refugees were Acadians who were moving
back to lands from which they had previously migrated to the
United States./ The refugees, including the several
thousand Negroes, were transported in British ships to Nova
Scotia./ By the end of 1783, more than 30,000 had reached
Nova Scotia,/ vastly outnumbering the indigenous population
of 17,000./

Once landed in Nova Scotia the Loyalists went different

ways./ Approximately 600 moved to Prince Edward Island./ Almost 10,000 moved to the St. John valley, far away from the seat of government at Halifax./ Another 10,000 set out to Port Roseway, renamed Shelburne./ Here they attempted to turn this sea port into a rival to Halifax./ Approximately 2,000 moved to Cape Breton Island./

The British government undertook to settle and assist these refugees as compensation for their Loyalty to the Crown./ The government of Nova Scotia was instructed to grant 100 acres of land to the head of a family,/ and fifty acres for each member of a family./ Former members of the British forces were given larger grants of up to one thousand acres for a field officer./ The newcomers were also provided with tools and provisions to tide them over until they could gather their next harvest./

The sudden influx of immigrants to Nova Scotia caused difficulties and dislocations./ Some of these problems were due to the logistics of resettling so many people./ Others were attributable to Loyalist sentiments and perspectives on the political and social order./

One of the principal difficulties arose during the effort to distribute land grants./ Each grant had to be surveyed./ However, there was a serious lack of surveyors,/ resulting in lengthy delays in issuing land titles./ Many of these Loyalists came from cities and towns,/ and were

unaccustomed to pioneer life./ They found it extremely difficult to adapt to their new environment./ Poor crops and supply shortages added to the problem./ Those who settled in Shelburne met financial disaster./ Shelburne was poorly located and the surrounding land was not suitable for farming./ Those who invested their life savings lost all./ Of these, some drifted back to the United States/ or sailed for England./

Conservative movements like Loyalism are, by their very nature inflexible and intolerant./ Friction soon developed between farmers and city dwellers,/ between civilians and between former Loyalist soldiers,/ and between officers and enlisted men./ Some of the Loyalists felt that their loyalty deserved huge rewards./ They felt they were entitled to many privileges as a reward for their loyalty./ One frequent cause of friction was between those who had actively fought against the revolutionaries and those who didn't./ After a period of time, however, the Loyalists settled down and contributed greatly to the development of the Maritime Provinces./

The Loyalists who settled in Prince Edward Island encountered similar difficulties./ However, in this case the settlers found after they settled and cultivated the land, that it was already owned by absentee landlords./ Many left the province./ Those who stayed did so as tenant

farmers./ It was not until 1873, when PEI joined confederation,/ that the question of absentee landlords was cleared up./

Most of the Loyalists from inland states, such as New York, Pennsylvania and Western New England migrated overland into Quebec./ Many of these were farmers,/ better suited to pioneer life./ During and after the war, especially after the British defeat at Saratoga, Loyalists began drifting into Montreal./ Their arrival in Quebec set the stage for conflicts between English and French that are still unresolved,/ at least in the minds of French Canadians./ The Loyalists had little desire to settle and live under the Seigniorial system./ To them Quebec was a foreign culture, with its own religion, customs and laws./ To further complicate matters, the presence of a large number of English speaking settlers made the Quebec Act of 1774 obsolete./ The act had been formulated to govern a French speaking, Roman Catholic colony./ The presence of many thousands of Protestant English speaking immigrants forced officials to rethink the governing principles of Quebec, resulting in the Constitution Act of 1791./

During and after the war; the Loyalists followed the well-travelled Champlain-Richelieu River highway/ and settled in many untouched stretches of Quebec./ Many had been members of militia units, like Johnson's Rangers/ and

Butler's Rangers./ Others were mercenaries and land loyalists./ One notable group consisted of Indian Loyalists, led by Chief Brant of the Six Nation Confederacy./

Land grants and assistance were given to Quebec Loyalists,/ and they experienced similar problems and delays as those in Nova Scotia./ Some Loyalists took up land along the sparsely populated south shore of the St. Lawrence./ These settlements, called the Eastern Townships, became the basis of English speaking presence in Quebec./ The majority of Loyalists, however, moved west of the settled area of Quebec into the upper St. Lawrence/ and the Niagara peninsula./ Here, they, along with other settlers who came directly from the American colonies, laid the foundation for a new colony./

There were four general areas of Loyalist settlement in Quebec./ These were: the land on either side of the Grand River, the upper St. Lawrence between Montreal and Lake Ontario, the Niagara Peninsula and the Bay of Quinte./ Often members of the same militia units stayed together./ This is not surprising among a group of people with a common bond./ Thus, Brant's Indian followers were settled on a reserve along the Grand River,/ the King's Royal Regiment along the upper St. Lawrence,/ Butler's Rangers on the Niagara,/ and the Glengarry Highlanders around the Bay of

Quinte./

Many of the Loyalists in this part of the migration were farmers./ Thus, they were able to adjust more easily than others./ However, they still had a difficult time./ Whole forests had to be cleared to work the land./ In 1786, British support of the Loyalists stopped./ And in 1788 the settlers faced "the Hungry Year", a year of crop failures, food shortages and a severe winter./

After the initial difficulties, the Loyalists generally settled into a vigorous existence./ In coming, they gave British North America the beginnings of a middle class./ Most had negotiable skills or the economic experience necessary to make a successful venture of forced relocation./ With the growth of towns, they developed schools and newspapers,/ and founded small enterprises to tend to the needs of townspeople./ Some were involved in the development of giant industries in fishing, lumbering and ship building./ The Loyalists developed a carrying trade with the West Indies./ Their input greatly diversified the Canadian economy./ This diversification had a marked effect on the fur trade./ It did not interfere with the fur trade./ On the contrary it, as well as American competition provide the impetus for wider exploration, and new markets./ The fur traders continued their frantic search for new furs./

As the fur frontier moved westward the Loyalists filled in the vacuum behind./ Loyalist farmers began to occupy the lands as far as Lake Erie./ The fertile lands of the upper St. Lawrence provided ideal opportunities for the Loyalists./ New towns were also created, including, Shelburne, Saint John, Niagara, Kingston and York./

But the influence of the Loyalists extended far beyond the economic realm./ They came to Canada because of their Loyalty to all things British./ Once in their new locations they instilled the colonies with a fresh commitment to the rule of law, aristocracy and the King./ The Loyalists had a long standing contempt for the social experiment of their neighbours to the south./ They considered American republicanism, "rule by the rabble"./ This statement more than anything else clearly states the Loyalist position and demonstrates the inflexible nature of their political commitment./ The sheer weight of their numbers allowed them to impose their values over the somewhat unenthusiastic population of the colonies./ Their coming led to dramatic changes in the organization of political and social institutions, particularly in Quebec./ The settlements of Loyalists around the Bay of Fundy led to the creation of the Province of New Brunswick,/ a direct result of the unwillingness of the Loyalists to be ruled by far away Halifax./

Thus, Loyalist ideals were implanted in the colonies, growing ever stronger as the Loyalists recovered from their losses in the United States./ The transplantation of the Loyalists/had untold effects on Canada,/ and can be seen to this day in all of Canada's attributes and problems./

Appendix B
(Tests)

QUESTIONS
(Form "X")

1. The letter on the cover of my packet is "X" or "O"
(Please circle one).

2. Loyalists considered the Revolutionary government to be:
 - (a) rule by decree
 - (b) rule by law
 - (c) rule by the Crown
 - (d) rule by the rabble

3. Which group settled the Eastern townships?
 - (a) Indians
 - (b) Loyalists
 - (c) Butler's Rangers
 - (d) American Revolutionaries

4. The main problem of the Loyalists in Quebec was due to:
 - (a) absentee landlords
 - (b) starvation
 - (c) culture
 - (d) the Indians

5. How many major migrations were there to British North America?
 - (a) 2
 - (b) 3
 - (c) 5
 - (d) 4

6. Which statement most accurately expresses the difficulty that Loyalists had with established settlers?

- (a) The settlers of Nova Scotia resented the Loyalists because they were given land grants.
- (b) The Loyalists resented the settlers because they were absentee landlords.
- (c) The Loyalists resented the settlers because they did not fight for Britain in the Revolutionary War.
- (d) The settlers resented the Loyalists because they fought in the Revolutionary War.

7. In which place did the Loyalists settle and find that their land was owned by absentee landlords?

- (a) Nova Scotia
- (b) New Brunswick
- (c) Prince Edward Island
- (d) Quebec

8. Which of the following trades or skills is generally not associated with the Loyalists?

- (a) farmers
- (b) doctors
- (c) fur traders
- (d) shop keepers

9. Which group did not fight the Americans but moved with the Loyalists anyway?

- (a) Indians
- (b) Quakers
- (c) Swiss
- (d) Germans

10. Which group of Loyalists adjusted the best?

- (a) New Brunswick
- (b) Quebec
- (c) Nova Scotia
- (d) Niagara

11. How many Americans supported the revolution?

- (a) one quarter
- (b) one half
- (c) two thirds
- (d) one third

12. Why did the Loyalists from colonies by the sea move to Nova Scotia, Cape Breton and Prince Edward Island?

13. In what ways did the Loyalists help diversify Canada?

14. Why do you think that the Loyalists were against the revolutionary war?

15. What types of businesses did the Loyalists open in Canada?

16. What distinguishes the Loyalist Migration from other migrations?

17. Name two culturally related problems facing Loyalists in Quebec?

18. By which route did many Quebec Loyalists get to Quebec?

19. Name three towns created by the Loyalists?

20. In what ways did the Loyalists aid the British in the Revolutionary War?

21. What was the significance of the Hungry Year?

QUESTIONS
(Form "O")

1. The letter on my packet is "X" or "O" (Please circle one).

2. The foremost characteristic of the Loyalists was:

- (a) hatred of the American colonies.
- (b) a desire to live in British North America.
- (c) allegiance to the Crown.
- (f) fighting for money.

3. Which statement most accurately describes the Loyalists?

- (a) The Loyalists caused little social or economic change in British North America.
- (b) The Loyalists gave the Colonies a long lasting belief in the Seigniorial system.
- (c) The Loyalists became tired of hardship and moved to England.
- (d) The Loyalists were a major force in colonizing British North America.

4. Which city was the assembling point for Loyalists from colonies along the sea?

- (a) New Jersey
- (b) New York
- (c) Boston
- (d) Halifax

5. How many Americans supported the revolution?

- (a) two thirds
- (b) one half
- (c) one third
- (d) one quarter

6. The Loyalists land grants in Nova Scotia became a problem due to:

- (a) a lack of land
- (b) a shortage of surveyors
- (c) absentee landlords
- (d) no tools

7. Which Loyalists lost almost their entire investment?

- (a) New York
- (b) Halifax
- (c) Shelburne
- (d) Niagara

8. Where did black Americans settle in British North America?

- (a) Quebec
- (b) Nova Scotia
- (c) Niagara
- (d) New Brunswick

9. The Loyalists helped:

- (a) themselves to what ever they wanted
- (b) diversify the country
- (c) arm the Mennonites
- (d) create an English speaking majority in Quebec

10. Which statement is most accurate?

- (a) Loyalists helped form the middle class.
- (b) Loyalists were mostly poor people.
- (c) Loyalists were very rich and powerful.
- (d) Loyalists became fur traders.

11. The Loyalists main problems in Quebec were due to:

- (a) cultural differences
- (b) competition for land
- (c) lack of representative government
- (d) lack of money

12. What happened to the fur trade as a result of the Loyalist migration?

13. Why did some Mennonites and Quakers migrate with the Loyalists?

14. Why were Loyalists from inland colonies better suited to migration?

15. In what province was there a problem with absentee landlords?

16. What kind of difficulties arose as the result of the addition of so many Loyalists to Nova Scotia?

17. How many major migrations were there to Canada?

18. Why did the Loyalists leave the Thirteen Colonies?

19. Name two American colonies from which Loyalists came to Quebec?

20. How did the Quebec Act affect the Loyalists when they first arrived?

21. Name three ways in which Loyalists were persecuted by the revolutionary Americans?

Free Recall

Appendix C
(Vocabulary Test)

(Reduced to 75% of original)

NAME _____

VOCABULARY TEST

Directions To Students

1. Do not turn this page until directed to do so.
2. You will be given 10 minutes to complete as much of this test as you can.
3. Respond to each question by circling the most correct answer. Sample items appear below to show you how.
4. If you do not know the answer to an item, skip it and go on to the next one. If you guess an answer, be sure that you have narrowed the choice down to two, because you will be penalized 1/4 point for each incorrect answer. DO NOT SIMPLY GUESS FROM THE FOUR CHOICES.
5. Now, complete the sample items with your teacher.

PRACTICE EXERCISES

1. A chef works with A. bricks B. music C. clothes D. food E. statues.
Which word best completes the opening statement? Yes, food is the best answer. Look at the space D to see how you are to mark your answer.
2. To repair is to A. destroy B. finish C. fix D. work E. show
Mark the space for the answer you think is correct. You should have marked space C, since fix is the correct answer.
3. Mathematics refers to A. letters B. numbers C. machines D. plants E. stars.
What is the letter of the best answer? Mark the space lettered the same as the answer you think is correct. You should have marked space B, numbers is the correct answer.

DO NOT TURN THIS PAGE UNTIL DIRECTED TO DO SO.

TIME: 10 MINUTES

VOCABULARY TEST

1. Illegible writing is: A. unreadable B. illiterate C. irregular D. secret E. restrained
2. To cope is to: A. compare B. copy C. cling D. contend E. assist
3. Irresistible means: A. helpful B. incompatible C. compelling D. irrelevant E. indecisive
4. To be inconsistent is to be: A. erratic B. improper C. vain D. uneasy E. normal
5. One who is sedate is: A. quiet B. sentimental C. worldly D. busy E. methodical
6. Concocted means: A. agreed B. compared C. devised D. seasoned E. drank
7. Colleagues are: A. friends B. workers C. college students D. teachers E. associates
8. Taut means: A. tense B. ridiculed C. awkward D. wise E. lanky
9. A belligerent person is: A. proud B. uncomfortable C. hostile D. strong E. hospitable
10. Pending means: A. closing B. waiting C. forgiving D. waving E. preparing
11. To induce is to: A. order B. supply C. try D. persuade E. indicate
12. Incompatible means: A. unprepared B. indifferent C. not in agreement D. unfit E. useless

13. To refurbish is to: A. treat B. freshen C. cease D. admire E. create
14. Gargantuan means: A. ugly B. wild C. huge D. decorated E. vulgar
15. An obnoxious person is: A. unpleasant B. tricky C. dangerous D. wild E. stubborn
16. To deteriorate is to: A. take away B. replace C. kill D. grow worse E. develop
17. Closely correlated means: A. fitted B. related C. packed D. held E. combined
18. Imperative means: A. apathetic B. perfect C. urgent D. light E. not plausible
19. To query is to: A. hunt B. catch C. question D. separate E. trap
20. A vindictive act is: A. hopeful B. salable C. funny D. predictive E. spiteful
21. Traumas are: A. traps B. duties C. shocks D. commands E. tricks
22. Compilation means: A. courtesy B. competition C. gathering together D. discussion E. cutting out
23. To endeavor is to: A. begin B. enter C. try D. limit E. encourage
24. A novice is a: A. detail B. beginner C. fiction writer D. student E. sickness
25. To squander is to: A. squeeze out B. crush C. crouch D. use wastefully E. suppress

Do not stop here. Turn to page 2.

VOCABULARY TEST (Cont.)

26. Cardinal means: A. fundamental B. heart-shaped C. mode D. harmful E. calculated
27. Meticulously means: A. hurriedly B. decisively C. carefully D. truly E. quite lovely
28. To stipulate is to: A. dot B. splash C. blame D. estimate E. specify
29. Opportune means: A. assumed B. fitting C. weighty D. approaching E. new
30. To eradicate is to: A. inform B. raise C. deviate D. raid E. eliminate
31. Tenacious means: A. tempting B. temporary C. moderate D. persistent E. quiet
32. Well-feigned is: A. well-timed B. friendly C. well-pretended D. tired E. well-fed
33. Foibles are: A. leaves B. pages C. people D. followers E. faults
34. To be vanquished is to be: A. missing B. stung C. conquered D. lifeless E. valued
35. A stereotype figure is: A. vivid B. natural C. ideal D. conventional E. individual
36. Incessantly means: A. frequently B. scarcely C. constantly D. innocently E. clearly
37. A laudable endeavor is: A. praiseworthy B. laughable C. helpful D. harmful E. original
38. Fervor refers to: A. search B. intensity C. charm D. fate E. sickness
39. Malignity refers to something: A. harmful B. sad C. pliable D. contagious E. mechanical
40. Stint means: A. stench B. pain C. color D. pour E. small amount
41. To connote is to: A. compete B. suggest C. decide D. finish E. join
42. A grimace is a: A. facial contortion B. threat C. glance D. song E. vocal outcry
43. Perpetuation refers to: A. perplexity B. continuation C. prejudice D. impact E. confusion
44. A fervent wish is: A. frequent B. futile C. ridiculous D. unenthusiastic E. intense
45. A dubious enterprise is: A. twofold B. precise C. old D. involved E. questionable
46. An integral part is: A. essential B. compact C. numerical D. definite E. small
47. To intimidate is to: A. hint B. suffer C. frighten D. share E. intrude
48. To contrive is to: A. agree B. weigh C. devise D. deny E. check
49. Disconsolate means: A. inconvenient B. assisted C. smug D. dejected E. discarded
50. An inconsequential step means: A. trivial B. inconsistent C. gradual D. bothersome E. unbelievable

Do not stop here. Turn to page 3.

VOCABULARY TEST (Cont.)

51. Oblivious means: A. unpleasant B. gloomy C. outdated D. unmindful E. courteous
52. To delete is to: A. debase B. rewrite C. erase D. define E. consider
53. A symposium is a: A. concert B. symbol C. close friend D. meeting E. church
54. Virtues are: A. histories B. views C. entry permits D. dumps E. dreams
55. To affront means to: A. affect B. add C. overthrow D. aid E. offend
56. The gist of something is its: A. aim B. courage C. application D. essence E. value
57. Sporadic activity is: A. weird B. spontaneous C. scattered D. unique E. continual
58. Fostered means: A. trimmed B. promoted C. fooled D. hindered E. opened
59. A supercilious person is: A. educated B. rich C. proud D. graceful E. miserable
60. A sly person is: A. nimble B. fanciful C. thin D. tall E. flighty
61. Guides refer to: A. claims B. guides C. rules D. appearances E. creeds
62. To rebuke means to: A. reprove B. repulse C. represent D. ask E. order
63. A colloquy is a: A. breakdown B. plot C. church service D. conversation E. course
64. An unmitigated bore is: A. frank B. unhappy C. absolute D. helpless E. insignificant
65. Insurmountable problems are: A. inadequate B. insurmountable C. unknown D. critical E. challenging
66. To bolster is to: A. fasten B. run away C. support D. brag E. build
67. Vagrant means: A. empty B. striking C. wayward D. vague E. active
68. A blithe spirit is: A. beautiful B. unknown C. earnest D. merry E. reactionary
69. A coalescing is a: A. blending B. melting C. burning D. turning E. screening
70. Adversely is: A. favorably B. harmfully C. faithfully D. proudly E. daringly
71. To inhibit is to: A. attend B. live C. retain D. restrain E. dissolve
72. A virtuoso is: A. righteous B. noble C. practical D. skilled E. manly
73. Deftly means: A. eagerly B. skillfully C. shortly D. quietly E. desperately
74. Glaucoma affects the: A. liver B. nose C. tonsils D. heart E. eyes
75. To ostracize is to: A. disagree B. leave C. appeal D. curse E. exclude

Do not stop here Turn to page 4

VOCABULARY TEST (Cont.)

76. To curry favor is to: A. desire B. expect C. cut off D. cultivate E. resist
77. Interminably means: A. endlessly B. periodically C. gradually D. indefinitely E. completely
78. Compensation is: A. profit B. compliance C. discount D. remuneration E. increase
79. Evocative means: A. professional B. difficult C. abstract D. calling forth E. sending
80. To extricate is to: A. squander B. form C. leave D. complicate E. free
81. To placate is to: A. welcome B. rebuff C. prepare D. appease E. arouse
82. To augment is to: A. audit B. try C. anticipate D. enlarge E. predict
83. Indignantly means: A. solemnly B. indifferently C. carelessly D. angrily E. quickly
84. Optimum means: A. happy B. helpful C. sunny D. best E. optional
85. Indelibly means: A. tactlessly B. indecisively C. tirelessly D. permanently E. improperly
86. Consensus means: A. survey B. poll C. control D. consequence E. agreement
87. Derogatory remarks are: A. dangerous B. disordered C. playful D. strong E. disparaging
88. A chronic condition is: A. habitual B. timely C. changing D. medical E. impressive
89. Solace refers to: A. solitude B. solution C. heat D. solidity E. comfort
90. Plaintively means: A. playfully B. at length C. sorrowfully D. bravely E. slowly
91. A covert threat is: A. veiled B. rare C. new D. severe E. immediate
92. An inexorable stand is: A. unrelenting B. unexpected C. impossible D. commendable E. indifferent
93. Veritable means: A. valuable B. helpful C. skilled D. true E. springlike
94. Rapport refers to: A. scarcity B. surplus C. rumor D. harmony E. swiftness
95. To desist is to: A. lose hope B. avoid C. push D. oppose E. cease
96. A vociferous man is: A. fashionable B. thoughtful C. tender D. clamorous E. angry
97. Initiative refers to: A. trend B. restraint C. brain power D. business E. enterprise
98. Pretentious means: A. imaginary B. sensuous C. unpleasant D. vague E. showy
99. Boon refers to a: A. toll B. sound C. structure D. favor E. taste
100. Profundity refers to: A. depth B. pleasure C. length D. strength E. contempt

STOP

You have completed the Vocabulary Test. You may recheck your work, if time permits. Do not turn this page until directed to do so. Wait for directions.

Appendix D
(Instructions for Students)

DIRECTIONS FOR STUDENTS

You are about to participate in a study to evaluate the design of instructional materials. The study is divided into two parts:

1. You will be asked to read a passage of history.
2. Then, you will be asked to write about and answer some questions on the history passage you read.

Please follow the instructions given by your teacher closely. It is very important that you know what to do and that you follow these instructions. Each part of the package is clearly marked. You will work on one part of the package at a time. You will probably not be working on the same materials as your neighbour, so please concentrate on your own materials.

The teacher has asked you to write your name on the envelope with the materials. Remember that you will NOT be graded on this. However, we need your help to evaluate the materials, and need you to do the best you can on them.

If you have any questions during the session, just raise your hand and your teacher will come to your desk and individually help you. Please do not ask another student. If you complete part of the material before the time is up, please go back and review the material you are working on at the time. Please DO NOT look at materials you have already completed or materials that are to be done next. Wait for your teacher's instructions before starting anything new.

We greatly appreciate your cooperation and your time. If you have any questions at this time, please ask.

Please answer the following questions. For the MULTIPLE CHOICE questions, simply circle the one most correct answer. For the SHORT ANSWER questions, please use the space provided. If you need additional space, feel free to use the back side of the page.

You will have 15 minutes to complete this section. Try to answer all the questions, but if you have trouble with one of them, skip it, and go back to it later if you have time.

When your teacher tells you to do so, turn this page and begin.

Please write down everything that you can remember about the Loyalist Migration. Use your own words as you recall what you learned from the passage.

You will be given 12 minutes to complete this section. If you need additional space, feel free to use the back side of the pages.

When your teacher tells you to do so, turn this page and begin.

Appendix E
(Instruction for the Monitor)

INSTRUCTIONS FOR THE MONITOR

1. Before distributing the materials explain to the students that the purpose of this test is to evaluate the design of instructional materials only. The results of this test will not constitute part of their grade.

2. Included are enough materials for 140 students. The materials must be administered to no less than 120 students to get viable results. Be sure that each instructor has his/her own watch to time the various sections (times are clearly indicated below). The whole session requires approximately 75 minutes.

3. Half the materials are to be distributed in the order given, to grade 9 students. The other half are to be distributed in the order given to grade 11 students. The envelopes are coded in the following manner: 9-1-1, 9-1-2, 9-1-3 etc; 11-1-1, 11-1-2 etc. The envelopes with code numbers starting with the number 9 must be distributed to grade 9 students. The envelopes with code numbers starting with the number 11 must be distributed to grade 11 students. The other numbers refer to the type of materials and need not be considered.

4. The experiment should take place simultaneously in both grades. If this is not possible, it should be done on the same day. If the experiment is administered in any other way it will negatively affect the results.

5. Pass out the materials ensuring that each student has one and only one envelope.

6. Ask the student to write their names and age on each envelope in the space provided. Remind them that their name is for keeping track of the materials and that they will not be graded. If they refuse to write their name, tell them to write John Doe, or something (eg. the last four digits of their phone number). Please do not suggest that, unless someone actively objects, as we want as many names as possible for later matching with the delayed test. (NOTE: PLEASE DO NOT MENTION THE DELAYED TESTS TO ANYONE).

7. Instruct the students to remove the materials from the envelope and place them, without looking through

them, on the upper right hand corner of their desks. If the desks aren't large enough for two stacks plus writing space they may place the materials on the floor on their right.

8. Instruct the students to take the top sheet. It must have the word DIRECTIONS TO STUDENTS at the top of the page.

9. Read through the directions aloud while the students follow along silently. If they have any questions about what to do, answer the questions from the material in the directions. Emphasize that if they have questions as they are working their way through the materials, to raise their hands and ask. Someone will come to their desk and answer the question individually.

10. If there are no more questions, request the students to place the directions face down on the top left hand corner of the desk, or on the floor on the left and take the next sheets on the right. This package must have the letter "A" in the center. Ask them NOT to read the material until instructed to.

11. Read through the instructions on the top of the page as they read along. Once every one is ready and you are ready to start timing, tell them to turn the first page and begin reading. Be sure to give them exactly 25 minutes.

12. If some students finish before others, ask them not to talk, disturb the other students, or look at the other materials. Remind them that they should continue studying the materials for the test.

13. When the 25 minutes are up, ask them to place the material face down on top of the instructions.

14. Ask the students to pick up the next sheets from the materials on the right hand corner of their desks or floor. The top sheet of these materials will have "B" written in the center of the page. Then, instruct the students to begin completing the exercises inside. After 1 minute, ask the students to stop and to place the math materials face down on the pile on the left hand side.

15. Ask the students to pick up the next part of the

materials from the right hand pile. These materials should have "C" written on them. When you are ready to time them, read through the instructions on the cover. Please encourage them to write down everything they can remember from the story, using their own words. Be sure to carefully time this part for 12 minutes.

16. When 12 minutes are up, ask the students to place the Free Recall face down on the other materials.

17. Next, tell the students to get packet "X" or "O". Explain that this quiz should be easier, and that some of the questions may ask them to repeat what they said in the Free Recall. Read through the instructions on the cover, answer any questions and ask them to begin. Give them exactly 15 minutes to answer this section.

18. When 15 minutes is up, ask the students to place the Questions face down on the other materials, gather ALL the materials together and return them to the envelope. Collect all the envelopes, making sure that there are no stray parts on their desks or on the floor.

19. Thank the students for their cooperation and tell them you will let them know the nature and results of the experiment in a few weeks, so that they can see how the test turned out.

Appendix F
Answers to Short Answer Questions

Passage 1
("X" Form)

12. (a) the Atlantic colonists had found a kinship with the British colony of Nova Scotia.
(b) went to Nova Scotia, Cape Breton and Prince Edward Island because land was plentiful and the social climate was to their liking.
13. (a) doctors, lawyers, politicians, shopkeepers, pioneers, tradesmen and businessmen came and immediately began practicing their professions, trades or skills.
(b) public works were undertaken, schools built and more newspapers founded.
(c) small shops catered to the needs of the towns people, while great enterprises in fishing, lumbering and shipbuilding catered to the demands of the Empire.
(d) carrying trade with the West Indies developed.
14. (a) wished to maintain the British connection.
(b) wished to live in a United Empire.
(c) shared a deep allegiance to the British monarchy.
15. (a) doctors
(b) lawyers
(c) politicians
(d) shopkeepers
(e) farmers
(f) pioneers
(g) tradesmen
(h) schools
(i) fishing
(j) lumbering
(k) shipbuilding
16. (a) was a forced migration.
(b) largest migration.
17. (a) language
(b) religion
(c) government in which they could not participate.

18. (a) up the Lake Champlain-Richelieu River highway.
19. (a) Shelburne
(b) St. John
(c) Niagara
(d) Kingston
(e) York (Toronto)
20. (a) fought alongside the British.
(b) fought for the British.
(c) gave moral support.
21. (a) almost starved to death.
(b) faced with crop failures.
(c) shortage of food.
(d) severe winter.

"O" Form

12. (a) furs and revenue from them fired the economy.
(b) fur trade continued to be prime factor in the economic life of North America.
(c) traders continued the search for new fur areas to meet the competition of American competition.
13. (a) because of religious convictions.
(b) refused to bear arms
14. (a) the rigours of frontier life were not new to the farmers.
15. (a) Prince Edward Island
16. (a) shortage of surveyors.
(b) shortage of supplies.
(c) resentment between the settlers and the immigrants.
17. (a) 4
(b) Colbert
(c) Loyalists
(d) Great migration of 1815-1850
(d) Luanier-Sifton migration of 1897-1914
18. (a) were loyal British subjects who wished to maintain their British connections.

- (b) wished to live in a United Empire.
19. (a) New York;
(b) Pennsylvania
(c) Western New England
20. (a) formulated to govern a French speaking, Roman Catholic population;
(b) protected and governed a culture foreign to the Loyalists.
21. (a) indignities.
(b) persecution
(c) loss of livelihood
(d) personal harm
(e) loss of jobs
(f) property confiscated
(g) homes looted

Passage 2
(Form "X")

12. (a) as maritime people, the felt an affinity to the people to the north.
13. (a) schools were built
(b) newspapers were opened
(c) opened shops to serve the needs of their communities
(d) shipping and transportation businesses
(e) carrying trade with the West Indies
(f) fur trade
14. (a) love of the Crown
(b) wish to live by rule of law, with parliament, aristocracy and King
(c) could not conceive of existence outside the British Empire
15. (a) same as 13 above
16. (a) no choice
(b) had to give up devotion for crown or move north out of Colonies
17. (a) Catholic
(b) French speaking
(c) culturally foreign
(d) governed under Quebec Act
(e) could not form representative assembly
18. (a) north by the Lake Champlain-Richelieu River highway
19. (a) Shelburne
(b) St. John
(c) Kingston
(d) York
(e) Niagara
20. (a) actively fought with British
(b) formed Loyalist Units
(c) sympathized with British
21. (a) harsh winter
(b) late spring
(c) crop failure
(d) shortage of food

(Form "0")

12. (a) expanded west
(b) fired the economy
13. (a) refused to bear arms
(b) revolutionaries held some bitterness toward them
14. (a) they were farmers
15. (a) Prince Edward Island
16. (a) there were not enough surveyors
(b) land was poor for farming
(c) they were city folks
(d) friction between who fought and those who did not
(e) friction between farmers and city dwellers
(f) friction between Loyalist officers and their soldiers
17. 4
18. (a) could not conceive of an existence outside the British Empire
(b) wanted to live by rule of law, with a parliament, aristocracy and a King
(c) love of the Crown
19. (a) New York
(b) Pennsylvania
(c) Western New England
20. (a) could not form a representative assembly
21. (a) lost jobs
(b) lost every thing
(c) tanned and feathered
(d) lost homes

Passage 3
(Form "X")

12. (a) had things in common with the colonist of Nova Scotia.
(b) heritage by the sea.
13. (a) gave these colonies a semblance of middle class.
(b) doctors
(c) lawyers
(d) tradesmen
(e) fishermen
(f) farmers
14. (a) devotion to the Crown
(b) refusal to fight against the king
15. (a) same as in 13 above
16. (a) it was forced
17. (a) government to which they could not relate
(b) Catholic
(c) French speaking
(d) government in which they could not participate.
18. (a) up the Lake Champlain-Richelieu River highway
19. (a) Shelburne
(b) St. John
(c) Kingston
(d) Niagara
(e) York
20. (a) actively fought with British
(b) formed Loyalist units
(c) sympathized with British
21. (a) cruel winter
(b) severe crop shortage

(Form "O")

12. (a) expanded westward
13. (a) refused to bear arms

14. (a) backwoods farmers
15. (a) Prince Edward Island
16. (a) land grants held up due to lack of surveyors
(b) little experience in pioneering
(c) investments in Shelburne lost
(d) resented colonists who didn't fight
(e) wanted special treatment
(f) officers resented men
(g) civilians resented military
17. 4
18. (a) because of their unyielding devotion to the Crown
(b) refusal to fight with American rebels
19. (a) New York
(b) Pennsylvania
(c) Western New England
20. (a) act designed Catholic and French speaking population
(b) government with whom they could not relate
(c) lack of participation in government
21. (a) exposed to violence and repression
(b) mobs robbed and pillaged
(c) tarred and feathered
(d) weren't protected by the law
(e) confiscation of property
(f) imprisonment
(g) banishment
(h) death

Passage 4
(Form "X")

12. (a) traditions and customs attractive to Loyalists
(b) some were moving back
13. see Passage 1
14. (a) wished to maintain the British connection
(b) wished to live in the Empire
15. see Passage 1
16. (a) resulted as a consequence of political ideas and concept of loyalty
(b) forced
17. (a) religion
(b) language
(c) Quebec Act
(d) couldn't form assembly
18. (a) up the Champlain-Richelieu River highway
19. (a) Shelburne
(b) St John
(c) Kingston
(d) York
(e) Niagara
20. (a) fought with them
(b) fought beside them
(c) gave moral support
21. (a) harsh winter
(b) late spring
(c) crop failure
(d) shortage of food

(Form "O")

12. (a) expanded
(c) revenue fired the economy
13. (a) refused to bear arms
14. (a) they were farmers

15. (b) Prince Edward Island
16. (a) lack of surveyors
(b) land poor for farming
(c) city folks unaccustomed to struggle
(d) loss investment in Shelburne
(e) friction between Loyalists and settlers
17. 4
18. (a) devotion to the Crown
19. (a) New York
(b) Pennsylvania
(c) Western New England
20. (a) couldn't participate in government
(b) different language
(c) different religion
21. see Passage 1

